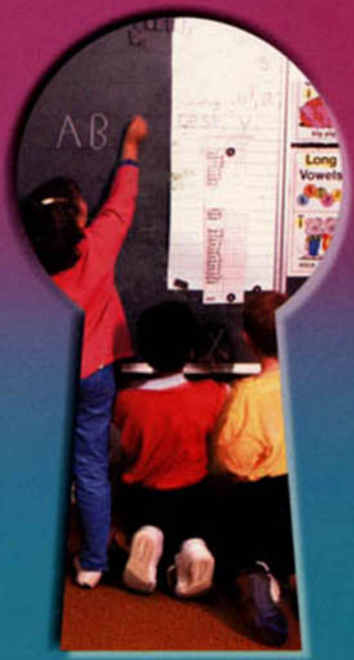
# Keys to Educational Psychology




Editors: Irma Eloff & Liesel Ebersöhn

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**Pieter du Toit** is a senior lecturer in the Department of Curriculum Studies at the University of Pretoria. He holds a PhD in higher education. One of his interests is facilitating learning from a perspective of learning-style flexibility. Complementing interests are action research and portfolio assessment. He has acted as guest lecturer at the Iowa State University and the University of Oklahoma in the USA, and the University of Antwerp in Belgium. From the latter he holds a post-doctoral fellowship. He is a member of the Management Committee of the Australian-based Association for Action Learning, Action Research and Process Management (ALARPM) and a registered Herrmann Brain Dominance (HBDI) practitioner of the Ned Herrmann Group in the USA.

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**Salomé Human-Vogel** is a lecturer in the Department of Educational Psychology at the University of Pretoria. She lectures in learning diversity, educational psychological assessment and family counselling. Her PhD (Ed Psych) dealt with cognitive intervention with children in formal contexts. Research interests include narrative approaches to family counselling and learning support, the development of self-regulated learning and cognitive intervention.

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**Brenda Louw** is Professor and Head of the Department of Communication Pathology at the University of Pretoria. She is a speech–language therapist who specialises in early communication intervention, craniofacial disorders, child speech and language disorders and the family focused community intervention approach. Her ongoing research interest is the development of a model of early communication intervention service provision to the under-serviced populations of South Africa. Her current research project is exploring service delivery to infants and children with HIV/AIDS in care centres. She was awarded Fellowship of the South African Speech, Language and Hearing Association for outstanding contribution to the profession.

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**Peter Salovey,** Dean of the Graduate School of Arts and Sciences, Yale University, is the Chris Argyris Professor of Psychology and was formerly the Chair of the Department of Psychology. He is also Professor of Epidemiology and Public Health. He directs the Health, Emotion and Behavior Laboratory, is deputy director of the Yale Center for Interdisciplinary Research on AIDS, and has affiliations with the Yale Cancer Center and the Institution for Social and Policy Studies.

Professor Salovey received an AB in Psychology and a co-terminal MA (Sociology, Stanford University). He holds three Yale degrees in psychology: MS, MPhil and PhD. His research has focused on the psychological significance and function of human moods and emotions, and the application of social psychological principles to motivate people to adopt behaviors that protect their health. His recent work concerns the ways in which emotions facilitate adaptive cognitive and behavioral functioning. With John D Mayer, he developed a broad framework, coined 'emotional intelligence,' to describe how people understand, manage and use their emotions.

Salovey has published about 200 articles and chapters, and he has authored, co-authored, or edited 11 books. He edits the Guilford Press series *Emotions and Social Behavior*, and he has served as Editor or Associate Editor on *Psychological Bulletin, Review of General Psychology* and *Emotion.*

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PART ONE

# Introduction

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# Introduction to Educational Psychology

Irma Eloff and Liesel Ebersöhn

## INTRODUCTION

This book introduces readers to Educational Psychology in South Africa. Educational Psychology is one of the most exciting, fast-growing and dynamic fields in Psychology today, and in South Africa it is a discipline and profession that has enormous social relevance in our approach to the challenges of the 21st century.

For many years, we have relied on knowledge that has been generated in European and American contexts. While this knowledge base remains highly relevant to what we do in South Africa, it is also important that we combine it with knowledge that is indigenous. We are becoming a global community and we can learn from each other, thus a merger of diverse ways of thinking is appropriate.

As authors and psychologists, we question the apparent acceptance of the notion of 'universal truths', irrespective of context. In this book, we aim to reflect both existing bodies of knowledge and emerging hypotheses of indigenous knowledge systems. In theory, these bodies of knowledge seem distinct; however, we believe that in practice such a distinction is both superficial and artificial. In the past, we have been predominantly trained in Western models of thinking and our practice reflected this. Gradually, we are becoming more aware of the unique quality of the challenges presented by Educational Psychology in South Africa. We now strive to train students not only to consider Western perspectives, but also to think about that which is indigenously significant.

In this book, the reader will find keys to unlocking the doors of Educational Psychology. These keys have been carefully selected with the help of a number of academics. This book is representative of our beliefs, approaches and view of realities in Educational Psychology. Included in this presentation are theories of Positive Psychology, the asset-based approach, diversity discourses, the realities of vulnerable children in South Africa, and the blurring of boundaries between previously segregated academic and professional disciplines. We shall discuss these further below.

This chapter outlines the aims and assumptions of this book and reflects on these questions: Who is at the core of Educational Psychology? Who do we want to get to know? Are there any other role-players in the field? Where is Educational Psychology situated? Which factors impact on the people and contexts of Educational Psychology? On what do we focus in Educational Psychology? What do we have to know to be able to work in this field? We conclude the chapter with a declaration of the ways in which we have chosen to answer these questions.

## AIMS OF THE BOOK

This book aims to:

- introduce the topic of Educational Psychology in South Africa
- give the reader a solid theoretical basis by being framed within educational and psychological theories
- provide an accessible discussion that strikes a balance between a theoretical introduction to the topic and its possibilities in practice
- not only cover the usual topics that are found in Educational Psychology textbooks, but also to feature research throughout
- serve as an effective reference guide for students in Educational Psychology, with its emphasis on clear definition of terms.

## ASSUMPTIONS OF THE BOOK

As authors and psychologists, we have and present a highly specific view of the topic. We have chosen one path among several to lead us through its various aspects – one that presents a panorama of Educational Psychology in South Africa.

Our point of departure is informed by Positive Psychology, in which we focus on wellness and well-being. We take the asset-based approach, which is central to Educational Psychology theories and practices. Although these are our preferences, we support a convergence of theories and models in the subject area. We uphold diversity, inclusion and indigenous knowledge system discourses. We present trans-disciplinary collaboration in Educational Psychology as a given and we propound flexibility in representation. We signify an emancipatory paradigm. We aim to broaden the focus of practice beyond the individual towards group and community development.

Please note that in this text we do not privilege either gender, but for the sake of ease of reading we refer to 'he' or 'she' rather than both at the same time.

## CHILDREN

Children have always been of central concern in Educational Psychology. As mentioned, much of what we know about children is informed by Western beliefs. The prevalent theories of children's development, emotions, cognition and situatedness provide specific perspectives of the realities of children's lives worldwide. These theories can be usefully infused with the perspective of childhood in South Africa in particular.

Today, the majority of South African children face the realities of poverty, HIV/AIDS, unemployment, the post-apartheid landscape, and

barriers to learning and development. From a Positive Psychology standpoint, they can be seen to strive towards wellness and well-being, benefiting from their resilience. They are supported by an asset-based approach and indigenous knowledge systems, as well as by structures and practices in their communities.

## PARTICIPANTS

Many other role-players populate Educational Psychology. They comprise educational psychologists themselves, parents, siblings, caregivers, educators, professionals, other significant people in the lives of children and families, and community members. In this book, we do not distinguish between an educational psychologist as 'prime' expert and other 'secondary' participants.

Each of these role-players brings to the stage their own histories, capabilities and contributions, and they are regarded as equal experts. Their presence is characterised by dynamic interaction, multiple contributions and various levels of ingenuity. They each play a significant role in finding solutions to the challenges presented by Educational Psychology. The matter concerns not only the child and the educational psychologist, but also the synergy of people, places and partnerships. The sum of these participants typifies Educational Psychology.

## CONTEXTS

Educational psychologists work in schools, universities, hospitals, NGOs, courtrooms, private practice and communities throughout South Africa. They also work in regional and national departments of education, and other governmental offices. They compile policy, and consult in national and international funding, and in development initiatives. They contribute directly to processes that involve the challenges faced by children today. Their research into established theories and practices contributes to the knowledge bases of Education, Psychology and other related fields.

## INFLUENTIAL FACTORS

Many factors influence the practices and experiences of children, educational psychologists, families, educators, professionals and communities in various relevant contexts, some of which are the social realities of HIV/AIDS, poverty and unemployment. Reciprocally, this social context then plays a definitive role in the manner in which a child, together with particular contributors, can contemplate and implement plans towards health and well-being.

Certain policies are also influential – they provide the framework for participants' actions and accountability. An example is the set of policies that legislates citizens' behaviour in South Africa: the Constitution and the Bill of Rights. Some policies inform the field of Education, and others the terrain of Psychology. Educational Psychology does not operate in an isolated 'capsule' of participants and contexts. Rather, the synergy between people and places has as a backdrop societal realities and decisions, in the form of policy frameworks, that must be taken into account in the theory and practice of Educational Psychology.

## A FOCUS

One of the primary focuses of Educational Psychology is the child. What do we share with children in terms of knowledge and skills? Educational psychologists gain information on several inter-related aspects of childhood development, which includes cognition and learning, emotion, behaviour, scholastic skills such as reading and writing, mathematics, learning styles, health and well-being. These aspects are separated simply for discussion purposes; in practice there is no separation – we do not work with a child in the realm of reading and writing without also taking into account her emotions, cognition, behaviour, health and lifeskills.

## THEORY AND PRACTICE

Before venturing into the field, we need to be familiar with the prevailing theories as well as with the strategies for making these theories a reality. Educational Psychology's 'building blocks' are located in Education, Psychology, research and related fields such as Anthropology, Sociology, Philosophy and Health Sciences.

Theories enable us to think, talk, critique and be informed with regard to the above-mentioned fields. They also enable us to develop approaches and models that turn them into practice. We devise strategies of moving from theories to practice and back, creating a synergy that is of mutual benefit.

Theory provides a common basis on which the community of Educational Psychology scholars can hold discussions. We translate our theoretical knowledge in a merger of competencies, attitudes and assumptions. These are evident in terms of certain skills and behaviours that characterise our work, examples of which are trans-disciplinary collaboration, and practices that focus on systemic and individual assessments and interventions. All of this is supported and informed by ongoing research.

## OUR APPROACHES

There is a panoply of approaches to be taken in Educational Psychology. You will find literature on broad-based approaches as well as on more refined approaches within particular themes. The former may include the medical model approach, the systemic approach and the eco-systemic approach. These are often also referred to as 'frameworks for practice', as 'theoretical frameworks' and, in some instances, as 'perspectives'. The latter may include postmodern approaches to therapy, cognitive approaches to dealing with health issues and inclusive approaches to dealing with diverse classrooms.

In this book we primarily take a positive, asset-based approach as part of the broad-based method of addressing the topic. Within certain themes we then allow for a variety of approaches that embrace the principles of the primary approach. On the whole we signify the need for practitioners and students of Educational Psychology to *take cognisance* of their chosen approaches, and to remain sensitive towards the consequences (be these intended or unintended) of such approaches.

## CHAPTER OUTLINE

### Cognitive map of chapter

This is a graphic representation of the main themes of the chapter. It provides an overview of the content that will be covered in the chapter.

### Key terms

The key terms related to the theme are defined in a manner that is synoptic and practical. You can use these as a guide to further readings on the theme.

### Introduction

Here the theme is delineated. You are introduced to some of its key aspects.

### Self-assessment

In this section you can assess your knowledge of the chapter theme. The content of the chapter is covered in question format, and in some instances questions are formulated with an emphasis on insight and critical thinking.

### Voices

Each chapter provides a quote (or more) from an educator or professional that relates directly to the chapter theme. The quote reflects the interrelatedness between theory and practice, and personalises the way in which theory is understood.

Each chapter also provides a quote (or more) from a child or learner that again relates directly to the chapter theme. The quote reminds us that children are at the core of Educational Psychology.

### Application strategies

Some of the theory in the chapter is translated into strategies for the classroom or school. Here you can find practical, concise and directive ways in which to use the theoretical knowledge that is explored in the chapter.

### The reflective teacher/educator/professional

This section differs from the self-assessment section in that it guides not only the students' learning in general, but also the reflective processes that relate to the content that is covered in the chapter in particular.

### Ten facts about ...

Here, ten facts about the theme of the chapter are provided. This is based on completed research that has been disseminated in scholarly journals and publications.

### Suggested readings

This section serves as further reference for readers who wish to explore a specific field in more depth. The names of key authors are listed and a brief description of the book or books is provided.

## CONCLUSION

In this chapter we have provided an overview of what you can expect in this book. We highlighted the approach that we take to Educational Psychology and discussed the principles and practices of Educational Psychology that we embrace. We also gave an overview of the general structure that you can expect in the chapters that follow.

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PART TWO

# The Learner

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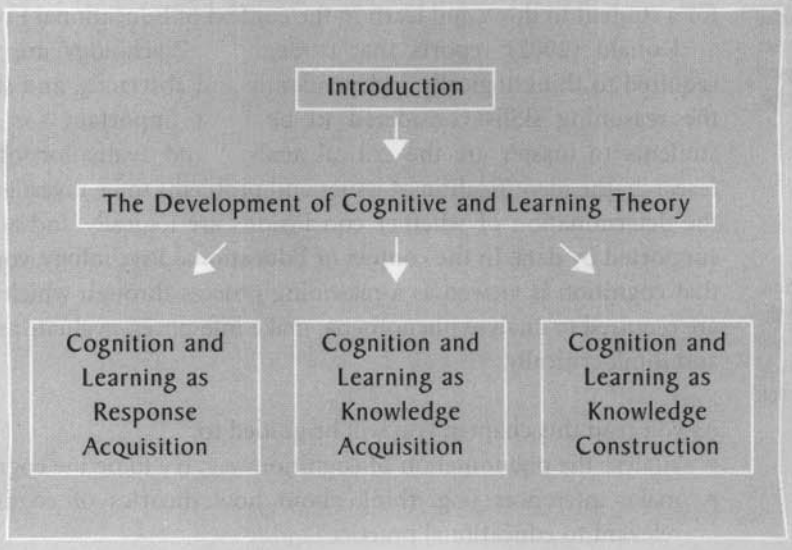
# Cognition and Learning

Salomé Human-Vogel



## INTRODUCTION

Cognition and learning are major areas of study in the field of Educational Psychology. It is likely that you are reading this chapter because you are interested in studying the topic and you wish to gain some insight into thinking and learning processes in an educational context. Studying cognition and learning means thinking about the ways people process information, solve problems, make decisions and expand their knowledge. To see how this is accomplished, we consider briefly what it means for a student to think and learn in the context of Educational Psychology.

**Cognition:** A broad term that describes the ways in which people process information, solve problems, make decisions and expand their knowledge.

Donald (2002) reports that students in Psychology are generally required to think logically, independently and abstractly, and states that the reasoning skills considered to be most important for graduate students to master are the critical analysis and evaluation of existing research, the identification of issues and problems to be investigated, and the determination of whether conclusions are logically and adequately supported by data. In the context of Educational Psychology, you will see that cognition is viewed as a reasoning process through which students are required to analyse phenomena, make inferences, evaluate arguments and think critically.

**Information:** Neutral data from the external physical and metaphysical environment.

As you read this chapter, you will be guided to:

- analyse the phenomenon of cognition (e.g. try to define cognition)
- make inferences (e.g. think about how theories of cognition are relevant to educational practice)
- evaluate arguments (e.g. form an opinion about the usefulness and value of various theories of cognition and learning)
- think critically (e.g. recognise the potential strengths and weaknesses of theories, and consider the context in which theories have been formulated).

Studying cognition and learning is an exciting and challenging task that requires students to be interested in subdisciplines such as cognitive psychology, neuropsychology, instructional psychology, philosophy and educational matters. As a student of Educational Psychology, you will often consider contradictory (and at times confusing) aspects of theories of cognition and learning, and speculate on their relevance to educational practice. As Long (2000) notes, Psychology generates theories that help us to understand basic areas such as learning and memory, while Educational Psychology requires us to consider how these theories are relevant to complex educational situations in which a variety of factors interact and combine to produce differing effects.

In the next section, you will begin to practise your analytical skills by considering what cognition and learning entail and how cognitive and learning theory has evolved over the past century.

## THE DEVELOPMENT OF COGNITIVE AND LEARNING THEORY

There is little scientific consensus regarding definitions of cognition and learning. Instead, definitions generally depend on the assumptions made by a particular theory of cognition and the context in which it is studied, while definitions (and theories) of learning are strongly informed by the cognitive theories on which they are based.

Since the inception of Psychology as a science in the late 1800s, theories of cognition and learning have moved through three distinct periods of study. Mayer (2001) lists these periods as the response acquisition period, the knowledge acquisition period and the knowledge construction period. Each of them was based on particular assumptions about cognition, which led to the instructional and educational practices that continue to be practised in varying degrees today.

During the **response acquisition period**, cognitive theory was largely influenced by the work of behaviourists and learning theory was formulated accordingly. The **knowledge acquisition period** was characterised by information-processing theory, which strongly influences educational practice even today. As we shall see, information-processing theory is severely criticised by some for its inability to explain complex, real-world problem-solving. The **knowledge construction period** featured constructivist theories of cognition that emphasised the social and contextual dimensions of cognition. According to constructivist theory thinking is not only a psychological phenomenon, but a social and a cultural phenomenon as well.

In the next section, we will briefly look at the three periods in the study of cognition and learning, and consider how each period defined and described cognition. This section will help you to reflect *critically* on the context in which theories of cognition are formulated, as well as on their strengths and shortcomings in an educational context.

Critical thinking requires you to:

- decide to what extent you agree with a particular argument
- formulate your own theoretical position
- provide evidence for your statements
- discover strengths and shortcomings in theories
- consider how context influences people's thinking and opinions.

Keep these five points in mind as you read the following section.

## COGNITION AND LEARNING AS RESPONSE ACQUISITION

**Situated cognition:** The context in which people think and the meaning that they derive from physical and social events.

Early in the history of Psychology, the study of cognition was strongly influenced by associationist theory. Benjafield (1993) explains that associationists believe that babies are born with little knowledge and that the environment can impress almost anything on the mind of a child. Mental structures are thought to develop through increasingly complex associations between events that a child experiences.

**Associationism:** A theory that describes cognition as simple associations between different events.

According to **associationist theory**, cognition is viewed as simple associations between events and learning is understood to take place through trial and error. Generally, understanding and insight are excluded from associationist theory. The earliest scientific studies of associationism were carried out by Thorndike (1874–1949), and were primarily of animals. Associationists researched how animals such as cats, dogs and pigeons solved simple problems; they then applied the findings to humans. This meant that theories of cognition tended to be simplistic – even complex problem-solving was believed to be traceable to the simple principle of making a connection. Some of the most influential theories of learning that developed from an associationist perspective on cognition are operant conditioning (Skinner, 1904–1990) and classical conditioning (Pavlov, 1849–1936).

Skinner believed in the principles of associationism. He gained wide recognition for his behaviourist theory of cognition. It was important to Skinner to view cognition in terms of observable behaviour rather than mental activity, which he considered to be unscientific. He is perhaps best known for his study of cognition in terms of stimulus-response (S–R) bonds, in relation to which thinking is seen as a behavioural event in response to a particular stimulus. This led to the conceptualisation of learning as a form of **operant conditioning**, in which behaviours are associations between events and responses that are strengthened through positive reinforcers (rewards) or negative reinforcers (punishments) (Long, 2000). For example, if you are reprimanded for not being prepared for a lecture, the reprimand is intended as a negative reinforcer, or punishment, for unwanted behaviour. Learning occurs when you form an association between your behaviour (being unprepared) and the lecturer's response (reprimanding you). Evidently, operant conditioning describes relatively simple forms of learning and can be helpful in uncomplicated situations where the goal of learning is merely to elicit or eliminate a particular kind of behaviour.

**Operant conditioning:** An associative form of learning in which behaviours are regarded as associations between events, and responses are strengthened through positive reinforcers (rewards) or negative reinforcers (punishments) (Long, 2000).

The principles of operant conditioning can be highly effective with young children who have not yet developed the cognitive skills that enable them to analyse or think critically about their own behaviour. However, as Long (2000) points out, the use of operant conditioning principles to

motivate children to learn can be detrimental in the long term, since children may become dependent on the rewards that are given for learning – such as the approval of teachers or parents, and the admiration of their peers – rather than being intrinsically motivated to learn. Children who are motivated to learn enjoy doing so. They usually approach learning situations positively, expecting to enjoy the experience of expanding their knowledge because learning is about personal development and not about attaining a reward.

**Classical conditioning** is another form of associationist learning in which an association is formed between a stimulus and an involuntary response (Long, 2000). For example, if you have been reprimanded publicly by a lecturer for being unprepared for a lecture, you may have experienced anxiety (for instance, elevated heartbeat, a flushed face and sweating) which becomes associated with the lecturer. You may later experience such anxiety *whenever* you see the lecturer, regardless of whether the lecturer is even aware of you. In this example, the involuntary response (elevated heartbeat and so on) has been associated with the stimulus (the lecturer who reprimanded you), and an association is formed between you seeing the lecturer and experiencing anxiety.

**Classical conditioning:** A form of associationist learning in which an association is formed between a stimulus and an involuntary response.

It is interesting to consider why the earliest theories of cognition and learning described cognition as such a simple, linear and predictable phenomenon. To appreciate the nature of any psychological theory, we need to consider the **social context** in which the theory was conceived.

At the beginning of the 20th century, the social context was such that people were highly impressed with scientific developments in the natural sciences. At that time, Sir Isaac Newton had formulated his laws of motion and gravity, and his **classical physics** could explain and predict almost every macroscopic event taking place in nature. It appeared that Newton had discovered the basic laws of nature, and psychologists believed that it would simply be a matter of time before certain basic laws of **human nature** would be discovered as well. Since the **experimental scientific method** had been so successful for Newton, psychologists who studied human nature set out to use his method to measure human behaviour. This method was also underlined by a positivist belief that all truth can only be derived from sensory experience (**empiricism**). Thus, psychologists avoided speculating about unobservable mental activity, and chose only to study observable human behaviour.

**Positivism:** The philosophical position that an objective truth exists and that such a truth can be discovered through sensory experience only.

The associationism of Thorndike, Pavlov and Skinner was clearly an attempt to describe and formulate the general laws of human learning. Unfortunately, although the principles of associationism were effective in simple situations that required simple responses, they failed to describe *all* aspects of human learning. For example, in the 1950s Skinner

attempted to use behaviourist principles to explain how humans learn language. However, shortly after that, Chomsky argued convincingly that simple S–R bonds cannot account for *inter alia* the creative aspects of language learning and the fact that children can create sentences which they have never heard before. Most scientists agree that Chomsky's critique of Skinner marked the beginning of the decline of behaviourism, as scientists became more interested in the cognitive processes that underpin cognition and learning (Benjafield, 1993).

However, we should also remember that behaviourist theories largely represent the status of American (Western) psychology at the beginning of the 20th century. In Europe, **Gestalt psychology** represented a German psychology of thinking that was strongly influenced by Brentano, who was the first person to introduce descriptive, qualitative methods of studying psychological processes (Meyer, Moore & Viljoen, 1997). The principles of Gestalt psychology departed radically from the elementary associationist principles of cognition (Benjafield, 1993). In addition, Russian psychology, which was largely inaccessible to Western psychology until the late 1960s, emphasised the **socio-cultural** dimensions of cognition and learning. The Russian psychologist, Vygotsky, maintained that the development of internal thought processes was the result of social experiences that have been internalised and transformed through language. Vygotsky thus pointed to an important link between language development and cognitive development, but it would be several years later, when his work was translated into English, that his ideas were to influence psychological theories of cognition and learning in the West.

**Gestalt psychology:** A theory proposing that human experience and consciousness form an integrated whole, and are understood as such rather than by being broken down into simple units.

> The main difference between the Gestalt psychologists and the associationists is that the Gestalt psychologists believed that human experience and consciousness cannot be understood by being broken down into simple units. They also believed that humans organise their experiences to form a coherent Gestalt (whole) and maintained that insight, rather than mere trial and error, was important in problem-solving (Benjafield, 1993).

In Western psychology, the scientific study of internal, cognitive processes began gaining popularity in the mid-20th century not only owing to Chomsky's critique of Skinner's work, but also because of a rapidly changing social context. It was during this time that technological developments and inventions, particularly that of the computer, began to change the way in which psychologists chose to study human cognition and learning. The move from the study of cognition as observable

behaviour to internal cognitive processes heralded the beginning of the knowledge acquisition period.

## COGNITION AND LEARNING AS KNOWLEDGE ACQUISITION

The knowledge acquisition period was characterised by a shift in emphasis from behavioural responses to information-processing. The information-processing approach to cognition is largely modelled on the way a computer processes information.

The information-processing approach has been the dominant paradigm in cognitive psychology. It is sometimes also called the **cognitivist approach** because it locates cognition in the mind. Such an approach views cognition as problem-solving through computation, and does not account for the ability of social and cultural experiences to enhance or impede the development of thinking (Gurney, 1999).

**Cognitivism:** A theoretical approach that locates cognition in the mind and views it as problem-solving through computation.

The most basic assumption of the information-processing approach is that people receive information from the environment through their five senses and then store this information in their memories in the same way a computer stores information on its hard drive. **Memory**, or more specifically the manner in which people store and retrieve memories, is therefore an important area of investigation in the information-processing approach to cognition and it has significant implications for theories of learning. The ability to store and retrieve memories suggests that learning generally concerns accessing information from the environment and storing such information for later retrieval – during a test, for example. The role of the teacher in learning is generally to make information (facts) available to learners by way of a lecture or a presentation, and learners are expected to learn these facts. The learners' ability to memorise the facts, and then retrieve and reproduce them during a test or an examination, is considered evidence of learning. Such an approach has also been known as the **transmission model** or **banking approach** to learning. Thus, learning is principally a question of acquiring as much knowledge as possible.

Most of us have had the experience of studying for a test – we had to memorise facts and reproduce these later. We also know the experience of having the answers we provided being marked as correct or incorrect. However, the tests are intended to have a more long-term effect: we need to realise that once we have acquired knowledge we are generally expected to do something with it. Depending on the learning situation, we may be required to *apply principles* that we have learned to a particular context, or we could be asked to combine several different kinds of knowledge in order to solve a problem. Frequently, we are also called upon to explain

our understanding of how various pieces of information fit together, to *draw conclusions* and to *make inferences.* For example, if you were to study this chapter for a test or an examination, you would need to commit certain of its facts to memory. However, the examiner will probably require that you not only *name* these facts or *describe* certain events, but that you also *classify* examples of learning situations according to the context in which they were formulated. The examiner might require, too, that you *evaluate* the theories of cognition presented in this chapter according to certain criteria.

The information-processing approach assumes that cognition and learning is linear and mechanistic. Strube (2000) comments that information-processing theory has strictly adhered to the experimental methodology of the natural sciences. This means that the theory is also underpinned by positivist assumptions about cognition. In other words, information-processing assumes that there is only one objective way of discovering how people think and learn, and that it is possible for general laws of cognition and learning to be formulated that will remain true in all contexts. It will become evident later that this is in stark contrast to postmodern theories of cognition.

In 1956, Bloom described the following different categories of learning, which are often used to distinguish lower and higher levels of understanding (Long, 2000):

- knowledge
- comprehension
- application
- analysis
- synthesis
- evaluation.

**Knowledge** is considered the lowest type of learning because it focuses on the recall of information. **Evaluation** is considered the highest type of learning because it requires a person to integrate often contradictory information in order to arrive at a particular point of view.

**Knowledge:** Information that is internally represented in the mind of a person. **Declarative** knowledge is factual knowledge about the world, while **procedural** knowledge is knowledge about our skills and how we do things.

Despite many criticisms against the information-processing approach to cognition and learning (Potter, 2000; Strube, 2000; Mayer, 2001), the approach has helped to legitimise the study of internal cognitive processes as opposed to observable behaviours, and has significantly advanced our understanding of different types of knowledge. We know that there is a

difference between knowing facts (declarative knowledge) and knowing how to do something (procedural knowledge). Declarative knowledge is the result of conscious (explicit) learning, while procedural knowledge is the result of unknowingly (implicitly) learning certain skills (Long, 2000).

When young children acquire a language they have to learn many words that refer to their environment. This is called **explicit learning.** The knowledge that results from such learning is **declarative,** i.e. known facts about the world around them. But as children acquire the language, they also master the many rules of grammar and sentence construction associated with that language without being taught those rules. When the child gains this knowledge without being aware of it, it is called **procedural knowledge** and is the result of **implicit learning.**

**Learning:** Broadly, a relatively permanent change in behaviour.

In light of this, consider the following questions that frequently arise in educational contexts and that educational psychologists must address:

- When children learn a second language, is it better for grammar rules to be taught explicitly or should children be immersed in practical situations that require them to use the language?
- Should cognitive skills be taught directly and explicitly, or should an indirect approach be favoured in which children are exposed to situations that require the use of these skills?
- Does cognitive self-regulation develop as a result of being taught metacognitive skills directly, or does it require exposure to natural learning situations that require these skills?
- Should reading instruction emphasise the teaching of decoding skills, or should children be encouraged to recognise words in natural settings?

The distinction between explicit and implicit learning is at the heart of many debates about learning in education. But a choice between the approaches (explicit vs implicit) is rarely necessary, since complex learning situations more often than not require a blend of both. Thus, while some aspects of learning can be addressed indirectly, others may develop as a result of direct instruction. People can benefit from both of these experiences. Nevertheless, you may frequently find articles or texts that argue strongly in favour of one or the other. As mentioned above, your studies in Educational Psychology will continually require that you carefully weigh the evidence of each argument before coming to a conclusion. When you do this, you are beginning to think critically about issues in Educational Psychology.

In considering the issues above, you may notice that it would be difficult to make any definitive conclusions based on the brief mention of declarative and procedural knowledge. When you realise that you need

more information about different kinds of thinking before you can state your own position, you are beginning to develop the skills to control and regulate your own learning. Self-regulated learning entails assessing your own knowledge, setting your own learning goals and then developing a plan of action that will enable you to achieve those goals. One of the most important aspects of self-regulated learning concerns the role of metacognition in learning.

**Metacognition:** A process of thinking about what you know and what you are doing and thinking, and how you can improve your learning (Gibbons, 2002).

**Metacognition** has proved a useful concept for educators and educational psychologists to describe the kinds of behaviours that indicate that learning is not about receiving information passively, but about being able to *control* and *direct* our own learning. Metacognition can be seen as a higher level of cognitive processing because it refers to conscious decisions that we may make about which cognitive processes and strategies to employ under certain circumstances, rather than to the cognitive skills necessary for processing information (Boekaerts, 1997).

Looking at the different types of knowledge that have been described in information-processing theory, we see that metacognition also entails different kinds of metacognitive knowledge, as illustrated in Figure 2.1.

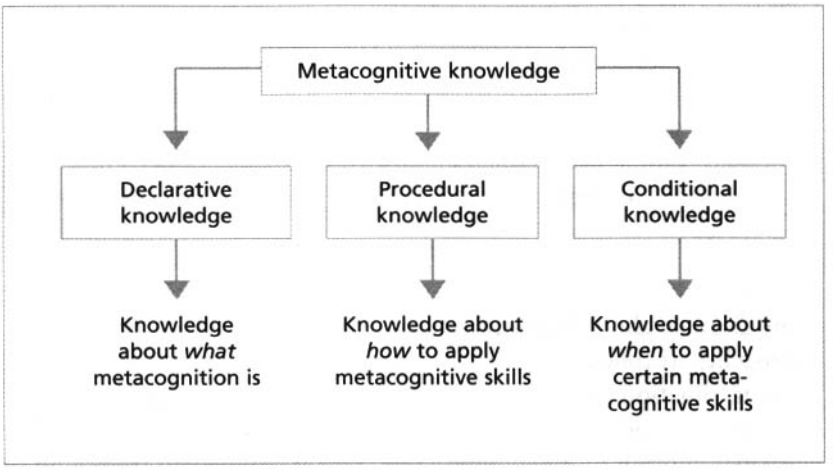



Figure 2.1 Types of metacognitive knowledge

To regulate your learning effectively, you will need all three types of metacognitive knowledge. For example, the declarative aspect requires that you know what you do when you learn, what kinds of behaviours you engage in that enhance or impede your learning, what learning conditions suit you best, and so on. The procedural aspect requires you to be able to know how to monitor and control your learning, how to assess your understanding of the material and how to organise your knowledge of a

topic. The conditional aspect requires you to be aware of when you may need to control your thinking and learning. For example, realising that you do not understand something or becoming aware that learning material is more difficult than usual presents circumstances which should prompt the use of metacognitive strategies. To gain a basic understanding of your own metacognitive skills, answer the questions in the box below.

| Question | Yes | No | Question | Yes | No |
|---|---|---|---|---|---|
| 1. At this point in the chapter, can you say which sections are more difficult than others? | | | 5. Have you tried to relate the contents of this chapter to other books you have read or subjects that you are studying? | | |
| 2. Have you marked any unknown technical terms that are not described adequately in this chapter? | | | 6. Have you tried to determine which might be the best strategy for mastering the material in this chapter? | | |
| 3. Have you marked any passages that will require you to read additional literature? | | | 7. Have you identified topics that this chapter does not address? | | |
| 4. Have you tried to fit this chapter into the larger context of Educational Psychology? | | | 8. Have you considered whether you see this chapter as relevant to your development as an educational psychologist? | | |

If you have answered mostly 'yes', then you can be described as a student with good metacognitive skills, and research shows that you will probably experience little difficulty in attaining your own learning goals (Boekaerts, 1997). However, if you replied mostly 'no', you may wish to consider how you can improve your own self-regulation skills since you are likely to be frustrated by any learning situation that requires more than rote-learning. A good place to begin would be to consult Gibbons (2002).

The knowledge acquisition period was very productive with regard to the study of cognition and learning. Information-processing theory was especially influential in shaping educational practice, and it continues to be so to a great extent. It highlighted the importance of attention and memory processes in learning, and led to educational practices that encouraged educators to capture their learners' attention using interesting material. It also attracted attention to instruction in cognitive skills and strategies, and generated study skills programmes that focused on

**Mnemonic strategies:** Lists, acronyms or rhymes which students can use to memorise information.

mnemonic strategies to memorise information and mind-maps that helped learners to represent their knowledge conceptually. However, as Mayer (2001) points out, in the 1970s cognitive psychology was becoming irrelevant simply because it could not account for learning in complex and realistic situations. Also, the social and political context from the 1960s onwards saw to it that greater attention was being paid to the plight of marginalised ethnic groups. It became apparent that modern theories of cognition could not account for the differences in the cognitive functioning of racially diverse groups. Information-processing theory could not explain the social and economic influences on cognitive development. It became increasingly important for psychologists to consider not only what happens in the mind of a person as he thinks and learns, but also how social and cultural contexts shape his cognitive development.

The awareness of the social and cultural contexts in which people think and learn was partially responsible for the onset of the knowledge construction period. This period can be seen as a reaction against the positivist assumptions of the modern study of cognition. Constructivist approaches place much more emphasis on the active role of the learner through the belief that knowledge is not passively received, but actively construed by the learner. Constructivist views also make it necessary for us to consider the contexts in which people construe knowledge, and thus socio-cultural theories of cognition belong to this period.

## COGNITION AND LEARNING AS KNOWLEDGE CONSTRUCTION

Constructivist theories of cognition and learning generally assume that the knowledge human beings possess does not exist in a perfect form outside human existence. Instead, knowledge is seen as the result of human beings interacting actively with their world. Constructivist theory assumes that people are actively involved in construing knowledge and that such knowledge is always construed within a particular social and cultural context.

One of the most important implications that constructivist theories have had for the way we view knowledge is that knowledge is no longer considered objective, reliable and independent of context. Since knowledge is seen as dependent on the context in which it was created, we can no longer talk about absolute truths. To decide whether a fact is true we need to consider the context in which it is stated as such – there may be other contexts in which a particular fact may not be accepted as the truth. This is the case in certain religious, spiritual and social beliefs that people have. For example, a man being the head of the household and a woman not having a career used to be beliefs that many Western people held to

be true. However, while one community may regard this as truth, another may live by different standards.

Many communities have specific religious beliefs concerning the meaning of their lives, the existence of a creator and the possibility of an after-life. In each particular community, these beliefs are accepted as the truth. However, problems tend to develop when one community elevates their beliefs to the status of absolute truth and criticises other communities for having contradictory, and thus 'false', beliefs. This situation can also arise in education when certain knowledge systems come to be regarded as true and others are relegated to the status of myth, folklore or legend. According to modern science, the only way to establish the truth of a statement is to subject it to empirical investigation, which involves experimentation, measurement and verification.

Constructivist theory allows us to view knowledge from a different perspective. It recognises that all knowledge is subjective and created in the human mind, not discovered in nature. Instead of being seen as a process by which knowledge is *acquired* or *discovered,* learning is viewed as a process of **active construction**. Rather than making claims about the truth, constructivist theory is more interested in investigating whether a particular statement is viable within its context. If the knowledge we as humans create allows us to cope with the world, such knowledge is considered to be viable. We need to be aware that knowledge may be viable in one context, but not in another. For example, viewing intelligence from a constructivist point of view, we must concede that the kinds of behaviours that different societies may regard as intelligent would vary greatly according to the context in which a particular society lives. In Western society, intelligence has become synonymous with logical, ordered and analytical thinking, and the kinds of tasks used to assess intelligence also measure how well people perform those intellectual, academic skills. Western society tends to focus on academic performance while paying less attention to social and emotional skills, which are favoured in non-Western contexts far more than analytical problem-solving skills. However, increasing recognition is given to the fact that intelligent behaviour comprises much more than academic performance: it may also involve superior social and emotional skills.

The context in which a community lives will often have a great influence on the kinds of behaviours that it would reward for being intelligent, problem-solving behaviours. Acknowledging the importance of the social and cultural context of cognition has led to a collection of theories that is principally associated with situated cognition. In **situated cognition**, the meaning that people derive from physical and social events is considered highly important to understanding cognition

because cognition is viewed as a **semiotic**, or meaning-making, process (Lemke, 1997). It has helped to draw our attention to the problem of **transfer** in cognition by pointing out that the educational psychologist cannot always successfully transfer all knowledge learnt in one situation to another. For example, the information contained in this chapter provides the basis for other modules in Educational Psychology dealing with intelligence, learning in academic areas and learning difficulties. If you succeed in using the knowledge gained from this chapter to help you to master other areas of study then you are successfully transferring what you have learned in one context to another. If you approach each chapter in this book as if it is a unique entity, to be memorised without connections being made between the chapters, then you are failing to transfer what you learn in one situation to another. One of the skills that is most important to educational psychologists is indeed the ability to transfer knowledge from one situation (e.g. theoretical learning) to another (applied psychology practice).

Another theory that has become influential in the study of cognition and learning is **socio-cultural theory**, particularly the ideas associated with Vygotsky. There are several important concepts linked with Vygotsky's theory. The first is that of the **zone of proximal development**, or ZPD. Vygotsky (1935/1978: 86) defined the ZPD as 'the distance between the actual developmental level as determined by independent problem-solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers'. Once Vygotsky's writings were translated to English in the late 1960s, his thoughts on the ZPD generated great excitement in educational circles and his theory provided the impetus for an Israeli psychologist, Feuerstein, to advance his own theory of **mediated learning experience**, or MLE.

**Zone of proximal development:** The distance between a child's actual developmental level, as determined by independent problem-solving (that is, when a child can solve a problem without any adult guidance), and the level of potential development, as determined through problem-solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1935/1978).

MLE theory proposes that children do not learn directly from their physical environment, but rather that the caregivers act as mediators to make learning events meaningful to the children. Learning is therefore a mediated activity, not a direct one. From this point of view, children who suffer from learning difficulties, particularly in situations where the culture of the home and of the school varies, are not necessarily lacking in ability, but rather have not been mediated into the culture of the school. In other words, these children have not acquired the cultural behaviours that are necessary to flourish in the school environment. Frequently, such children are subjected to culturally biased testing that 'confirms' their lack of ability, and instead of receiving the appropriate learning support (mediation), they may be placed in remedial classes or, even worse, in schools for the intellectually disabled.

Vygotsky's ZPD and Feuerstein's MLE tell us that problem-solving and intellectual activity are socially mediated processes. A society decides what it regards as intelligent behaviours and teaches these behaviours to its children. If such a child finds herself in a different society which has other expectations about intelligent behaviours, she will often underperform because she is unfamiliar with these behaviours. Instead of the child being seen as of low intelligence (which is also a culturally biased concept), efforts should be made to mediate her exposure to the new behaviours. Children frequently can and do improve once they are able to master new cultural behaviours with the help of a mediator.

## CONCLUSION

In this chapter you have been introduced to some of the major theories of cognition. As you ponder the questions that have been posed, consider that you are beginning to become a 'cognitive theorist' and that you can make a contribution to the development of cognitive theory by thinking further about cognition. Formulating cognitive theory is not simply the function of researchers or academics – it begins the moment you start to question knowledge about cognition and reflect on how current theories can be developed.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 What kind of thinking skills does the discipline of Educational Psychology require?
2 With which philosophical tradition do we associate early cognitive theory?
3 What are the shortcomings of cognitivism?
4 What are the main differences between cognitivism and constructivism?
5 How would you formulate your own definition of cognition and learning?
6 Why can cognition be described as a socio-cultural phenomenon?
7 How is constructivist theory relevant to education?
8 How would you use the different types of metacognition in learning support?

## VOICES

Understanding a child who is experiencing learning difficulties, emotional and behavioural challenges or the need for career guidance inevitably implies an understanding of cognition and related topics. A holistic view of a child includes an understanding of his or her level of cognitive functioning, as this in turn provides for possible explanations and should impact on all intervention initiatives.

– Psychologist, Gauteng

Meta-cognition is life-changing! It seems to influence not just learning but makes us emotionally and socially more aware.

– Educator, Gauteng

To meta-learn and meta-think is to meta-live! A constant conscious awareness of how you look at and take in information, what you do with the information and how you reproduce it when necessary is a brilliant way of being in touch with your inner self. I find it much easier to work self-regulative with regards to my studies when I approach my work with a meta-cognitive attitude. It is like knowing how to know: a great asset with which I came to understand my feelings towards certain subject areas and practical exposure because I was 'in touch' most of the time!

– Student in Educational Psychology, Gauteng

As intern educational psychologist at a school with students with learning disabilities I realised how important it is to be knowledgeable about children's cognition before one begins with any therapeutic intervention.

– Intern educational psychologist, Gauteng

## APPLICATION STRATEGIES

The strategies are as follows:

- Help children to develop their metacognition by guiding them to monitor their problem-solving efforts. Show them that it is important to take time to think about what they have learnt and what they still need to learn.
- To help children develop self-regulation skills, encourage them to plan their work in advance, and to assess their own performance regularly.
- Instead of *giving* children the answers, ask provoking questions that *guide* them to the answers.
- Do not be afraid to occasionally give children problems that you know they cannot solve. Use such problems as an opportunity for mediation. In other words, let them work at solving the problem and provide guidance when they struggle so that they have a sense of accomplishment with regard to the problem-solving process.
- Emphasise the social and emotional dimensions of learning to ensure that learning experiences and feedback are empowering for the children. Children should not be berated or punished for what they do not know.
- Each interaction is an opportunity for learning. Use informal interactions to probe children's knowledge about themselves and their world.
- Children need to feel that they are valued. In a culturally and linguistically diverse class, ensure that each child knows that her language is important. Ask children to supply certain words in their language so that other children can learn these.
- Let one child tell a story in his own language and allow another child to translate in English for the class. Children as young as nine years can do this; it encourages listening skills and promotes self-esteem.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 How can cognitive theory shape and improve educational practice?
2 As an educator or psychologist, why is it important for you to be knowledgeable about theories of cognition?
3 How can your knowledge of the different types of metacognition help you to develop children into self-regulated learners?
4 How would you apply your knowledge of cognition when offering learning support to children with learning difficulties?
5 How can cognitive theory help educators to choose learning support programmes that are educationally and psychologically sound?
6 How can situated cognition contribute to understanding barriers to learning in South Africa?
7 Which theories of cognition promote the principles of inclusion?

## TEN FACTS ABOUT COGNITION AND LEARNING

1 There is little scientific consensus regarding definitions of cognition or learning.
2 Cognitive and learning theory has moved through three distinct periods of study. These periods are the response acquisition period, the knowledge acquisition period and the knowledge construction period.
3 Early in the history of psychology, the study of cognition was strongly influenced by associationist theory.
4 Constructivist theories of cognition and learning generally assume that the knowledge human beings possess does not exist in a perfect form outside human existence.
5 Information-processing theory was greatly influential in shaping educational practice because it highlighted the importance of attention and memory processes in learning.
6 Constructivist theory realises that all knowledge is subjective and created in the human mind, not discovered in nature.
7 In situated cognition, the meaning that people derive from physical and social events is considered to be extremely important to understanding cognition.
8 Children who suffer from learning difficulties, particularly in situations where the culture of the home and of the school varies, tend to experience difficulties not necessarily because of a lack of ability, but because they have not been mediated into the culture of the school.
9 Metacognition is a higher level of cognitive processing because it refers to conscious decisions that we may make about which cognitive processes and strategies to employ under certain circumstances.
10 Vygotsky maintained that the development of internal thought processes was the result of social experiences that have been internalised and transformed through language.

## SUGGESTED READINGS

Donald, JG (2002). *Learning to think – disciplinary perspectives.* San Francisco: Jossey-Bass.

This volume discusses the various cognitive skills needed for disciplines in the social sciences and natural sciences. It focuses on research conducted at universities and is aimed at the kind of thinking skills required of students at postgraduate level. It can be a valuable resource for students who want to improve their academic performance.

Gibbons, M (2002). *The self-directed learning handbook. Challenging adolescent students to excel.* San Francisco: Jossey-Bass.

This hands-on volume focuses on the phenomenon of self-directed learning and offers various practical ways of developing these skills in adolescent learners.

Higgs, P and Smith, J (2002). *Rethinking truth.* Cape Town: Juta.

This book offers an introduction to the various philosophical traditions from empiricism to postmodernism. It is easy to read and contains some helpful applications of philosophical ideas to educational and everyday problems.

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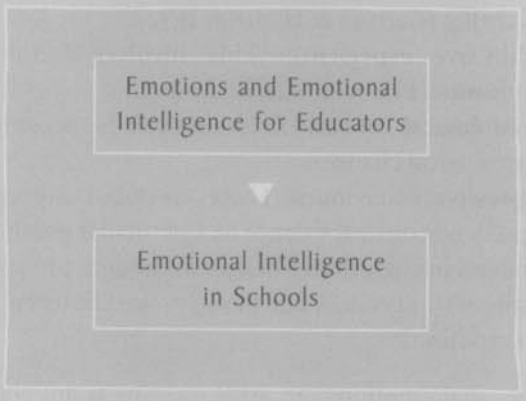
# Emotions and Emotional Intelligence for Educators

Peter Salovey



## EMOTIONS AND EMOTIONAL INTELLIGENCE FOR EDUCATORS

Emotions arise most often through interactions – real or anticipated – between people. They are part of an organism's social environment. A useful way of thinking about an **emotion** is as a person's genetic and acquired motivational predisposition to react experientially, physiologically and behaviourally to particular internal and external variables (Carlson & Hatfield, 1992). Our emotions prepare us for taking needed actions arising from interactions with others – they make it more efficient for us to run away when we are afraid, attack when angry and cooperate when happy, for example (Darwin, 1872/1998).

**Emotion:** A genetic and acquired motivational predisposition to respond experientially, physiologically and behaviourally to certain internal and external stimuli (Carlson & Hatfield, 1992).

An emotional experience consists of several components, including the following (Carlson & Hatfield, 1992):

- **Subjective experience:** This involves feelings of pleasure or displeasure, like or dislike, or arousal.
- **Physiological arousal:** Emotions can be accompanied by dramatic physiological changes.
- **Expressive behaviours:** These are facial expressions that typically signal a person's experience of a particular emotion.
- **Changes in cognition:** Changes in thought processes can complement emotions. In general, our thoughts are consistent with and guided by our emotions.

The idea that emotions can assist learning is not entirely new. There are many studies in the literature suggesting that various cognitive tasks – such as creative problem-solving or deductive reasoning – are accomplished more efficiently when a person is in a certain mood (see, for example, Palfai & Salovey, 1993). A way in which learners can be 'smart', or clever, is by understanding their emotions and those of other people. In his model of multiple intelligences, Gardner (1983: 239, original emphasis) describes a personal intelligence that he labelled as **intrapersonal intelligence** as follows:

**Intrapersonal intelligence:** A term suggested by Howard Gardner (1983) to mean access to our own feeling life, including our range of affects or emotions; it is the capacity to instantly discriminate between these feelings and, eventually, to label them, enmesh them in symbolic codes and draw upon them as a means of understanding and guiding our behaviour.

> The core capacity at work here is *access to one's own feeling life* – one's range of affects or emotions: the capacity instantly to effect discriminations among these feelings and, eventually, to label them, to enmesh them in symbolic codes, to draw upon them as a means of understanding and guiding one's behaviour. In its most primitive form, the intrapersonal intelligence amounts to little more than the capacity to distinguish a feeling of pleasure from one of pain and, on the basis of such discrimination, to become more involved in or to withdraw from a situation. At its most advanced level, intrapersonal knowledge allows one to detect and to symbolize complex and highly differentiated sets of feelings. One finds this form of intelligence developed in the novelist (like Proust) who can write introspectively about feelings.

This expanded view of intelligence, and our understanding of the importance of emotion in human adaptation, suggested that the idea of an emotional intelligence might be viable and could be delineated more explicitly.

## Delineating an emotional intelligence

We believe that there is an intelligence that entails the processing of affectively charged information (Salovey & Mayer, 1990). We define **emotional intelligence** as involving both the capacity to reason about emotions and to use emotions to assist reasoning. We believe emotional intelligence includes the abilities to identify emotions accurately in ourselves and in other people, understand emotions and emotional language, manage emotions in ourselves and in other people, and use emotions to facilitate cognitive activities and motivate adaptive behaviour (Mayer & Salovey, 1997). The classroom learner and teacher face tasks nearly every day that draw on these skills.

**Emotional intelligence:** A term suggested by John D Mayer and Peter Salovey that includes abilities to identify emotions accurately in ourselves and in other people, understand emotions and emotional language, manage emotions in ourselves and in other people, and use emotions to facilitate cognitive activities and motivate adaptive behaviour.

These emotion-related skills can be grouped into four clusters or 'branches' (Mayer & Salovey, 1997):

1 Perceiving emotions.
2 Using emotions to facilitate thought.
3 Understanding emotions.
4 Managing emotions in a way that enhances personal growth and social relations.

There is a distinction to be drawn between the second branch and the other three. Whereas the first, third and fourth branch involve reasoning about emotions, the second branch uniquely involves using emotions to improve reasoning. The four branches may form a hierarchy, identifying emotion in the self and others as the most fundamental skill and managing emotions as the most superordinate skill. The ability to regulate emotions in ourselves and others is built up from the competencies represented by the first, third and fourth branches. As authors, we have reviewed the literature concerning individual differences in these four sets of skills elsewhere (see Mayer, Salovey & Caruso, 2000; Salovey, Bedell, Detweiler & Mayer, 2000; Salovey, Mayer & Caruso, 2002); however, we provide a brief summary of the relevant skills in Table 3.1 and below.

### *Perceiving emotions*

Emotional perception involves registering, attending to and deciphering emotional messages as they are expressed in facial expressions, tone of

voice or cultural artefacts. Individuals differ in their abilities to discern the emotional content of such stimuli. Such abilities are basic information-processing skills in which the relevant information consists of feelings and mood states. Students rely on these skills when they change their behaviour in response to a facial expression of a teacher or lecturer.

*Using emotions to facilitate thought*

This second branch of emotional intelligence focuses on the manner in which emotion affects the cognitive system and can be harnessed for more effective problem-solving, reasoning, decision-making and creative endeavours. Emotions, such as anxiety and fear, can disrupt cognition, but they can also prioritise the cognitive system to attend to what is important (Leeper, 1948; Easterbrook, 1959; Mandler, 1975; Simon, 1982), and even to focus on what it does best in a given mood (see, for example, Schwarz, 1990; Palfai & Salovey, 1993). Teachers provide an intuitive sense of these skills, for example, when they play certain kinds of music in their classroom while the learners work on a creative art project.

*Understanding emotions*

The most fundamental competency at this level is that of labelling emotions with words and recognising the relationships among exemplars of the affective lexicon. The emotionally intelligent individual is able to recognise that the terms used to describe emotions are arranged into families, and that groups of emotion terms form fuzzy sets (Ortony, Clore & Collins, 1988). More importantly, the individual is able to deduce the relations between these terms – for example, that irritation can lead to rage if the provocative stimulus is not eliminated. This is the branch of emotional intelligence that we would expect to be most closely related to verbal intelligence. Students rely on it when they must characterise the emotions of a character in a story.

*Managing emotions*

Emotionally intelligent individuals can repair their negative moods and emotions, and maintain positive moods and emotions when appropriate. This regulatory process comprises several steps. Individuals must:

- believe that they can modify their emotions
- monitor their moods and emotional states accurately
- identify and discriminate those moods and emotions in need of regulation
- employ strategies of alleviating negative feelings or maintaining positive feelings
- assess the effectiveness of those strategies.

Table 3.1 The four-branch 'ability' model of emotional intelligence (and example skills)

| Branch | Abilities |
|---|---|
| **Branch 1: Perceiving emotions** | Ability to:<br>• identify emotion in our physical and psychological states<br>• identify emotion in other people<br>• express emotions accurately and express needs related to them<br>• discriminate between accurate/honest and inaccurate/dishonest feelings. |
| **Branch 2: Using emotions to facilitate thought** | Ability to:<br>• redirect and prioritise thinking on the basis of associated feelings<br>• generate emotions to facilitate judgement and memory<br>• capitalise on mood changes to appreciate multiple points of view<br>• use emotional states to facilitate problem-solving and creativity. |
| **Branch 3: Understanding emotions** | Ability to:<br>• understand relationships among various emotions<br>• perceive the causes and consequences of emotions<br>• understand complex feelings, emotional blends and contradictory states<br>• understand transitions among emotions. |
| **Branch 4: Managing emotions** | Ability to:<br>• be open to feelings, both pleasant and unpleasant<br>• monitor and reflect on emotions<br>• engage, prolong or detach from an emotional state<br>• manage emotions in oneself<br>• manage emotions in others. |

When a student is challenged in a conflict – deciding who is to play with a particular ball on the playground, for instance – or must work out a sharing arrangement with another child, it is likely that her emotion management competencies will be taxed.

## Measurement

As authors and psychologists, we have been working with two task-based tests of emotional intelligence: the **MEIS** (Multifactor Emotional Intelligence Scale) and the **MSCEIT** (Mayer-Salovey-Caruso Emotional Intelligence Test). The MEIS represented an attempt merely to show that measuring emotional intelligence reliably *as an ability* was feasible

**Multifactor Emotional Intelligence Scale (MEIS):** The first comprehensive ability-based emotional intelligence test developed by Mayer, Salovey and Caruso.

**Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT):** The published, ability-based emotional intelligence test developed by Mayer, Salovey and Caruso.

(Mayer, Caruso & Salovey, 1998; 1999). The MSCEIT is a more professional, user-friendly assessment battery, and we recommend it for the assessment of emotional intelligence in research and practice (Mayer, Salovey & Caruso, 2002a; 2002b; see also www.emotionaliq.org). It is considerably shorter and better normed than the MEIS, and it can be administered on paper or through a computer interface. Elsewhere, we have tried to make the case that ability-based measures may be a more appropriate way of operationalising our model of emotional intelligence in comparison to self-report inventories (Mayer, Salovey & Caruso, 2000). Also, the MSCEIT is an assessment instrument designed for older adolescents and adults. However, a middle-school version for youths – the MSCEIT-YV (Youth Version) – is being prepared for publication.

The MSCEIT has eight tasks, as depicted in Table 3.2. Two tasks measure each of the four branches of emotional intelligence. Branch 1 is measured through faces, for which participants are asked to accurately identify the emotions in faces, and pictures, for which participants are asked to accurately identify the emotions conveyed by landscapes and designs. Branch 2 is measured by the sensations task, for which participants compare emotions to other tactile and sensory stimuli, and facilitation, for which participants identify the emotions that would best facilitate a type of thinking (e.g. planning a birthday party). Branch 3 is

Table 3.2 The four-branch model of emotional intelligence as operationalised by the MSCEIT

| Branch | Tasks |
|---|---|
| **Branch 1: Perceiving emotions** | **Faces:** Identifying emotions expressed in faces.<br>**Pictures:** Identifying emotions suggested by photographs of landscapes and abstract artistic designs. |
| **Branch 2: Using emotions to facilitate thought** | **Sensations:** Matching tactile, taste and colour terms to specific emotions.<br>**Facilitation:** Indicating how moods and emotions affect cognitive processes such as thinking, reasoning, problem-solving and creativity. |
| **Branch 3: Understanding emotions** | **Blends:** Identifying the emotions that may encompass a complex feeling state.<br>**Changes:** Noticing how feelings and emotions progress, or the transition from one state to another. |
| **Branch 4: Managing emotions** | **Management:** Estimating the effectiveness of various strategies that could modify our feelings in various situations.<br>**Relations:** Estimating the consequences of various strategies for emotional reactions involving other people. |

measured through changes, which tests a person's ability to know which emotion would change into another (e.g. frustration into aggression), and blends, which asks participants to identify the emotions that would form a third emotion. Branch 4 is measured through emotional management, which involves participants explaining how they would maintain or change their feelings in certain hypothetical scenarios, and emotional relations, which entails participants suggesting how to manage the feelings of others.

The MSCEIT produces a total score, scores at two area levels and at the four branch levels, as well as scores for the eight individual tasks. When we employ the MSCEIT for validity studies, or interpret it in providing case feedback, we exclusively focus on scores at the total, area and branch levels. We emphasise the branch level scores as they are most consistent with the theory on which the test is based (Mayer, Salovey, Caruso & Sitarenios, 2001; 2003; Mayer, Salovey & Caruso, 2002a).

Operationalising emotional intelligence with the MSCEIT has led to the investigation of the relevance of what it predicts to education. Brackett, Mayer and Warner (in press) asked people to report the number of times they engaged in positive and negative behaviours with best friends, significant others and parents. Positive relations were assessed through questions pertaining to behaviours such as having lengthy conversations with friends and displaying affection towards significant others. Negative interactions were assessed using questions pertaining to behaviours such as being shouted at by a parent or heavily drinking alcohol with a friend. Also assessed were self-reported use of illegal drugs (e.g. the number of times the person smoked marijuana and/or used cocaine), alcohol consumption (e.g. the most amount of beer consumed in one evening, the number of times the person fell asleep owing to intoxication) and violent or illegal behaviour (e.g. the number of physical fights in which the person was involved in the last month, the number of times they were arrested in the last year). Lower emotional intelligence, especially in males, was associated with negative outcomes, including illegal drug and alcohol use, deviant behaviour and poor relations with friends. The findings remained significant even after scores on standard personality measures and academic achievement tests were taken into account.

The findings of Brackett et al. (in press) concerning drug use, alcohol consumption and social deviance replicated and extended an earlier study with comparable outcome variables (Formica, 1998). Children with higher MEIS (YV) scores were also rated as being less aggressive by their peers and as more prosocial by teachers than those students with lower scores (Rubin, 1999). Finally, in a study of adolescents in California, MEIS

scores were negatively associated with tobacco and alcohol use during the following month (Trinidad & Johnson, 2001).

## EMOTIONAL INTELLIGENCE IN SCHOOLS

In recent years, the theme of emotional intelligence has been used to organise efforts to teach schoolchildren various kinds of skills that help them to become competent in self-management and social relations. In the educational literature, this is usually called '**social and emotional learning**' (SEL) (Payton, Graczyk, Wardlaw et al., 2000; Elias, Hunter & Kress, 2001). Programmes range from the teaching of discrete skills in, for example, social problem-solving (reviewed in Elias, Zins, Weissberg et al., 1997; Cohen, 2001) and conflict management (e.g. Lantieri & Patti, 1996) to larger curricula organised around broader themes in social development.

**Social and Emotional Learning (SEL):** Programmes designed to teach schoolchildren various kinds of skills that help to build competency in self-management and social relations.

Three of the broader curricula that are explicitly focused on emotions and emotional intelligence are Self Science (McCown, Jensen, Freedman & Rideout, 1998), the South Africa Emotional Intelligence curriculum (De Klerk & Le Roux, 2003) and the Innerchoice Publishing activity books (Schilling, 1996). The Self Science curriculum – which was developed independently of and prior to our work on emotional intelligence – comprises 54 separate lessons organised around 10 goals. Some of these goals are explicitly about emotions – becoming more aware of multiple feelings, developing communications skills for affective states, and disclosing thoughts and feelings – and the lessons themselves involve a variety of subjects in the traditional curriculum.

The South Africa curriculum includes 58 activities, the majority of which are focused on feelings, such as the origin of a feeling, feelings and physical symptoms, identifying feelings in animal pictures, feelings that relate, naming the feeling, controlled and uncontrolled ways of expressing feelings, empathy and validation. The Innerchoice Publishing activity books include activities for teaching an array of social and emotional competencies, some focused closely on emotions (managing feelings) and some less so (decision-making, self-concept).

Although controlled evaluation studies demonstrating the efficacy of these curricula have not yet been published, reports from teachers, parents and students suggest that these curricula are appreciated and that it is possible for them to be implemented on a large scale. In addition to demonstrating the efficacy of these programmes, the other major challenge is to show that the skills learned in these programmes can be generalised to real-life situations (Lopes & Salovey, in press).

Zins, Elias, Greenberg and Weissberg (2000) suggest that, to be successful, SEL/emotional intelligence school-based programmes should

be comprehensive, multiyear and integrated into both the curriculum and extracurricular activities. They should be theoretically based, as well as developmentally and culturally appropriate. They should promote a caring, supportive and challenging classroom and school climate; teach a broad range of skills; be undertaken by well-trained staff with adequate, ongoing support; promote school, family and community partnerships; and be systematically monitored and evaluated.

However, difficulties arise when researchers and educators try to identify a set of key skills on which to focus. Payton et al. (2000) list social and emotional competencies under four headings: Awareness of self and others, Positive attitudes and values, Responsible decision-making and Social interaction skills. In drawing up any such list of skills for a domain as broad as social and emotional functioning, we face several challenges:

- The list is likely to represent an extremely broad range of skills, and it may be difficult to address all of them through formal classroom instruction.
- The sub-skills listed may themselves be fuzzy sets, encompassing a wide array of skills.
- These skills may be partly domain- or context-specific, thus failing to transfer across situations.
- Some of these skills may depend on other skills which are not part of the list.
- There may be more common ground between educational programmes stressing different key skills than is usually acknowledged, as these programmes may operate through similar mechanisms (e.g. enhancing intrinsic motivation).

For all these reasons, the theoretical and empirical rationale for emphasising one set of skills over another is often difficult to establish (Lopes & Salovey, in press).

## CONCLUSION

Emotional intelligence can be seen as complementing traditional analytical intelligence. For instance, the ability to use emotions to motivate ourselves seems to be a highly important skill – if students are not motivated to solve a problem, they cannot even begin to apply their analytical abilities. Also, emotional intelligence offers another way of optimising intelligence: by honing emotional skills learners can adapt even more efficiently to their environment, becoming better at solving inter- and intrapersonal problems rather than mere analytical problems. For

instance, not letting our anger get the better of us, or understanding how we make others feel, are skills critical to **social problem-solving.**

Emotional intelligence appears to enhance the experience of school for learners, as the literature suggests (for a broad overview, see www.casel.org). Teachers can also benefit from these competencies. Anyone doubting that emotional skills are necessary to being a good teacher most likely has not had experience in a classroom. Perhaps this is why educators around the world have shown a great deal of enthusiasm for emotional intelligence. The abilities that comprise emotional intelligence – recognising the emotions of others, understanding emotional knowledge, using emotions to think clearly and creatively, and regulating emotions in ourselves and in others – are the very interpersonal skills that characterise excellent teaching. By optimising their own emotional intelligence, educators can be more effective inside and outside of the classroom.

As an example of how emotional intelligence can contribute to excellence in teaching, consider our ability to recognise individual differences in the emotional expressions of students. A teacher possessing this ability will be able to tailor feedback and criticism to the needs of the student. Students who are more confident and resilient, for instance, may be better suited to receiving critical feedback and have little need for buffering. This type of feedback may challenge them and stimulate their intellectual development. Students prone to negative feelings and a lack of confidence in the scholastic domain, by contrast, may need their feedback to be tempered with praise. Evidently, educators who are able to make this distinction and read the emotions of their students will have greater success in meeting the diverse needs of the classroom. Educators with well-honed skills on all four branches of emotional intelligence may be less likely to suffer the consequences of burn-out and can be especially effective in addressing the needs of their students.

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# Health and Well-being

Carl S du Preez

| Health | Health Promotion | Health Issues |
|---|---|---|
| Well-being | Lifestyle | Poverty |
| Mind-body integration | Exercise | HIV/AIDS |
| Health and behaviour | Safety | Disease and illness |
| Health and stress | Personal control | Disabilities |
| Health and school | Coping, lifeskills, coherence, resilience and hardiness | Learning difficulties |
| | Stress management | Substance abuse |
| | Social support | Mental health |
| | Community health and health workers | Child abuse |
| | | Children as caregivers |

## INTRODUCTION

Learning not only refers to actions taking place in a classroom, but also pertains to any aspect of involvement, development, experience, exposure and therefore of 'living'. As learners are part of a multitude of systems, they learn in their families, schools, classrooms, peer groups, communities, cultures and in every situation in which they find themselves. This chapter attempts to encapsulate aspects of learners' health and well-being by looking at certain core concepts of health, health promotion and health issues as they relate to effective learning. It will further indicate that heath and well-being are not only important to clinical work, but also are essential in all the learning environments in which the educational psychologist operates. Therefore, the discussion incorporates both children and adults as learners.

## HEALTH

Health can be seen as a complex concept that has various meanings for different cultures, societies and disciplines. In the past, Western medicine has been strongly influenced by the Cartesian paradigm, which sees disease as the malfunction of a biological mechanism. Here, the role of the doctor is to correct the malfunction through physical or chemical intervention (Capra, 1983; Lemonick, 2003). This can further be seen in the 'organic orientation' portrayed in Psychiatry, as psychiatrists attempt to find organic causes for all mental disturbances (Capra, 1983; Ogden, 2001). This reductionist trend in the biomedical sciences continued into the 20th century. It is loosely characterised by progression on molecular level, the advance in manufacture of drugs and vaccines, the triumph in the field of endocrinology, the proof of the importance of vitamins, the coding of genetic material, and many more valuable medical developments. Notwithstanding this, McKeown (1979) argues that the contribution of medical intervention has been much smaller than is generally believed.

Some years ago, Capra (1983) proposed that the health of human beings is predominantly determined not by medical intervention but by their behaviour, food consumption and the nature of their environment. This closely relates to the English origin of the word 'health', indicating 'wholeness'. This term is also the root for the descriptions 'spiritually holy' and 'physical health' (Van Niekerk & Prins, 2001). The World Health Organisation (WHO) (1986) defines **health** as not only the absence of disease, but also a state of complete physical, mental and social well-being. Some researchers question the word 'complete', and would rather define health in terms of an individual's quality of life encompassing social, mental and biological well-being.

**Health:**
A state of physical, mental and social well-being.

**Health psychology:** The study of the way in which thought, feeling and behaviour stem from, interact with or cause physical or mental efficiency, efficacy, comfort and well-being (Forshaw, 2002).

Six areas related to health psychology:

1. **Medical psychology:** In the UK this is synonymous with Psychiatry; in the United States it refers to a sub-speciality of Clinical Psychology.
2. **Psychosomatic medicine:** This is a speciality within the biomedicine that focuses on the psychological factors in the development and course of physical illness.
3. **Behavioural medicine:** This is a more recently developed inter-disciplinary field that applies theories and techniques from the behavioural sciences to the treatment and prevention of illness.
4. **Behavioural health:** This is an interdisciplinary field that focuses on the promotion of good health habits and the prevention of diseases in healthy individuals.
5. **Medical sociology:** This is a speciality within sociology that studies the social aspects of health and illness.
6. **Medical anthropology:** This is a speciality within anthropology that studies cultural aspects of health and illness (Bishop, 1994; Ogden, 2001).

## Well-being

The **illness/wellness continuum** is a model that describes health and sickness as overlapping concepts that vary in degree – with 'death' at one extreme and 'total well-being' at the other (Sarafino, 2002). This conceptualisation of health suggests the need for continuous balancing of the physical, emotional, social, intellectual and spiritual components of an individual to produce happiness and a superior quality of life.

**Well-being:** Depending on the point of departure, it is either strong intra-psychic constructs, or improved quality of life, or harmony between the mind and body.

Van Niekerk, Van Eeden and Botha (2001) apply the term '**psychological well-being**' and identify two scenarios for this concept. First, they describe some of the earlier conceptions (from 1945 to 1985) of psychological well-being as primarily intrapsychic constructs that are rooted in childhood. Second, they describe current conceptions of psychological well-being as having a stronger focus on the improvement of quality of life and capacity-building.

**Intra-psychic:** Thoughts and feelings that are confined to the mind.

Profile of wellness people/person (WP):

- **Cognition:** WP experience life as meaningful and are generally satisfied persons.

- **Effect:** WP generally experience more positive than negative feelings.
- **Behaviour:** WP generally experience high levels of control and perceive problems as challenges.
- **Self-concept:** WP are happy with themselves.
- **Interpersonal relationships:** WP generally experience sound human relationships at work, in the family context and socially.
- **Symptoms:** WP do not generally suffer from symptoms of mental disorders, such as depression or anxiety (Van Niekerk, Van Eeden & Botha, 2001: 79).

While reflecting on the concept of well-being we need to consider the central themes of psychological well-being according to African society. Black Africans do not distinguish between sickness of the body and the mind, and believe their ancestors are ever present and form part of daily life. In their view, harmony seems to form the core of well-being; their thinking is more collective than individualistic (Mwamwenda, 1995; Louw & Edwards, 1998).

## Mind-body integration

Lemonick (2003:43) states: 'The mind is just another organ, albeit more intricate than the rest', and argues that in curing the mind we may well aid in saving the body too. Increasingly, physicians and their patients recognise that mental states and physical well-being are intimately connected. This indicates a shift to a more **holistic** view of a person, which is echoed by research showing that even a simple simulation of an emotional expression causes changes in a person's nervous system, with notable effects on the brain and the body (Carlson, 1994). As Capra (1983: 369) notes: 'Healing will always be done by the mind-body system itself; the therapy will merely reduce the excessive stress, strengthen the body, encourage the patient to develop self-confidence and a positive mental attitude, and generally create the environment most conducive to the healing.'

**Holistic view:** To see a person as a unitary whole that influences, and is influenced by, the environment.

## Health and behaviour

**Health behaviours** are the behaviours of individuals attempting to prevent disease. Some health behaviours require engaging in positive activities and others in avoiding harmful ones (Bishop, 1994; Ogden, 2001).

**Health behaviours:** The behaviours of individuals attempting to prevent disease.

There are various determinants of health behaviour:

- Health behaviours differ between social groups. For instance, high income or educated individuals are more likely to be immunised than those with lower socio-economic status, and having regular access to medical care makes it more likely that a person will engage in preventive behaviour.
- Health behaviours are influenced by social situations, such as the case of a parent or sibling who smokes making smoking seem more acceptable.
- Health behaviours are influenced by perceived symptoms. For example, a person might decide to quit smoking after he begins to have a persistent cough.
- A person's health behaviours are influenced by psychological factors, both emotional and cognitive. People tend to be unrealistically optimistic about their future health (Bishop, 1994; Ogden, 2001; Forshaw, 2002).

With these determinants in mind, Weinstein and Rosen (2003) propose that educators will not have a significant influence on the health behaviours and life choices of their learners unless health is integrated into the total learning experience. This relates to the **health promoting school** concept in South Africa (Donald, Lazarus & Lolwana, 2000). It is interesting to note that the USA spends more on health care than any other country, yet health is a relatively low priority in its schools (Lear, 2002; Weinstein & Rosen, 2003).

**Health promotion:** A concept with a strong preventative focus in relation to the promotion of health behaviours and strengthening of multi-domain functioning of individuals and various communities.

## Health and stress

Stress provides a classical example of the link between the mind and the body. There is little wonder that it is dubbed 'the psychological common cold' (Bishop, 1994: 150; Restak, 2000: 175). Van Niekerk (1998: 7) briefly defines **stress** as 'the way in which the body and the mind respond to threats and demands from the environment'. This is not to imply that stress is always negative – positive stress (or eustress) arises from situations that are exhilarating, inspiring or enjoyable, and is an excellent motivator, especially for children. Negative stress (or distress) is potentially harmful, particularly if it lingers (Weinstein & Rosen, 2003).

**Stress:** The way in which the body and the mind respond to threats and demands from the environment.

Stress can impair cognitive functioning and may lead to cognitive deficits in children. Kaufman and Charney (2001) comment that preclinical studies demonstrate that stress in early life can change the development of multiple neurotransmitter systems and promote alterations in brain regions similar to those seen in adults with depression. It is also believed that stress reduces people's helping behaviour (Sarafino,

2002). Sarafino (2002) reports on various research studies that show how people who experience high levels of stress tend to perform behaviours that increase their chances of becoming ill or injured; this includes even accidental injuries occurring in the home, during sport activities, and while working and driving. Stress has also been linked to certain physical ailments and cancers (Bishop, 1994; Ogden, 2001; Sarafino, 2002).

It is important for us to realise that growing up is stressful, and most children have concerns about their place and role in society. Weinstein and Rosen (2003) list some of the stressors evolving during child development as personal goals, self-esteem, a shift in values, social standards, lifeskills and personal competence, and competition with peers.

### Health and school

Donald et al. (2000) uphold the health promoting school notion suggested by the European Network Promoting Schools, which aims at achieving healthy lifestyles for the total school population. Emphasis is placed on compiling a public health policy, creating supportive environments, strengthening community action and participation, developing personal skills and re-orientating health services.

## HEALTH PROMOTION

### Lifestyle

Lifestyle as a topic has become popular – self-help books and magazines are increasingly being published on this topic, which involves paying greater attention to the correct way to eat, sleep, work and relax.

A healthy lifestyle includes:

- Eating three meals a day (i.e. not skipping breakfast).
- Consuming eight glasses of water a day.
- Participating in moderate exercise three to four times per week.
- Maintaining a moderate body weight.
- Limiting alcohol intake.
- Not smoking.
- Sleeping for seven to eight hours a night.
- Managing time effectively (Van Niekerk, Van Eeden & Botha, 2001: 77; Sarafino, 2002: 143).

### Nutrition

The well-known saying, 'We are what we eat', has at least two meanings. First, it means that the quality of our diet can determine how we look,

behave and feel. Second, it means that food chemicals such as water, carbohydrates, fats, proteins, vitamins and minerals make identifiable contributions to the metabolic processes of cells in our bodies (Sarafino, 2002).

Research has proven that there is a significant link between diet and brain function. It is known that protein and calorie deficiency in early life (especially in the first six months) can result in both anatomical and biochemical changes in the brain (Lerner, 2000). Diet-related research stresses the need for removal of food additives, control of the blood-sugar level and avoidance of certain allergenic foods in children's diets to prevent learning difficulties (Lerner, 2000). Karp (2003) found that learners with poor nutrition tend to have more respiratory and other infections and more serious illnesses, and remain sick for longer periods.

People spend a lot of time eating for reasons other than nutrition: it makes us feel good, it can be a reward or a comfort, it is a component of hospitality, it forms part of cultural and social rituals, and so on (Ogden, 2001; Karp, 2003). These normal eating behaviours can sometimes be associated with eating disorders, such as obesity, anorexia nervosa and anorexia bulimia.

### Exercise

Well-documented, correlational and retrospective studies indicate that people who exercise or are physically fit often report less anxiety, depression and tension in their lives than those who do not exercise and are less fit (Ogden, 2001; Sarafino, 2002). Exercise slows down the aging process, leads to better self-image, promotes self-confidence, allows more restful sleep and improves people's work performance and attitudes (Van Niekerk et al., 2001; Sarafino, 2002). Zwiren and Hutchinson (2003) highlight studies that demonstrate how increased levels of physical activity relate to small but reliable improvements in the reaction time, maths performance and acuity of learners. These authors (2003) also point out the positive relationship between physical activity and self-esteem in children, which results in better classroom behaviour and a greater desire to learn. Raising children's physical activity level can sometimes mean simply decreasing the amount of time they sit or lie down and increasing the time they move around (Zwiren & Hutchinson, 2003).

### Safety

Accidents are the cause of a high percentage of injuries in children. Therefore, safety awareness is essential in the areas of pedestrian, vehicle, fire and home safety, as well as safety concerns regarding recreational and environmental issues (Alberts & Maurer, 2003).

We tend to forget what Emerson proclaimed, namely: 'We do not inherit the Earth from our ancestors; we borrow it from our children' (Rosen & Walter, 2003: 443). Taking safety precautions is not the only issue to consider when we deal with safety. We live in an environment that is not always as safe as we think. Here, environmental health becomes important. We need to be more aware of ways of handling environmental issues such as pollution, the greenhouse effect and solid waste accumulation (Sarafino, 2002; Rosen & Walter, 2003).

### Personal control

According to Weinstein and Rosen (2003: 3), 'Health results from a combination of knowledge and behaviour coupled with a person's heredity.' This indicates that a considerable amount of control is present. Werner and Bower (1995) believe that the best way health workers can help people to look at life differently is to build on their traditions or beliefs and discover new ideas for themselves. Health workers should focus on approaches of good will, respect and careful practices, as emphasised by Mwamwenda (1995). Also, giving them control and **ownership** seems to improve their health behaviours. Sarafino (2002) refers to studies that have found that people who have a strong sense of personal control tend to experience less strain from stressors, and thus perceive the stressors as less frightening. Personal control is important not just for prevention of stress and disease – when people in control fall ill or are injured, they tend to recover and heal more quickly than those who do not possess any control (Werner & Bower, 1995; Sarafino, 2002). The concept of personal control contributes to a person's coping mechanism, lifeskills, coherence, resilience and hardiness, all of which are essential for overall well-being. Sarafino (2002) also points out that personal control has its roots in child-rearing practices.

### Coping, lifeskills, coherence, resilience and hardiness

How people respond to a problem or a threatening situation is often referred to as '**coping**'. This behaviour can either be adaptive (problem-solving) or non-adaptive (using defence mechanisms). The overuse of defence mechanisms can influence well-being, for example a person delaying obtaining medical attention for a serious medical problem decreases her chance of recovery (Van Niekerk, Stones & Nichol, 2001). It is clear that coping is best viewed as a dynamic series of processes.

**Coping:**
The manner in which people respond to a problem or a threatening situation.

Bearing the concept of coping in mind, we can see **lifeskills** as fundamentally referring to a range of coping behaviours necessary for functioning effectively in the modern world (Ebersöhn & Eloff, 2003). In short, Ebersöhn and Eloff (2003: 39) describe lifeskills as follows:

**Lifeskills:**
A range of coping behaviours necessary for functioning effectively in the modern world.

'Lifeskills help you cope with problems, adapt to changes, and effectively confront crises and conflicts.' This links closely with the concepts of positive thinking, personal control and well-being discussed above. Health promotion can be considered as a lifeskill in itself (Donald, 2001), pertaining to the individual as well as being broadened to include *collective lifeskills,* which are important for a classroom, a society and even a nation to be able to cope.

**Salutogenic:** The origin of health.

Antonovsky's **salutogenic** model focuses strongly on the origins of health and what actually keeps people healthy. He (1990: 74) posed the well-known salutogenic question: 'How can we learn to live, and live well, with stressors, and even turn their existence to our advantage?'. An aspect of this model includes a sense of **coherence,** which involves the tendency of people to view their worlds as comprehensible, manageable and meaningful (Sarafino, 2002).

**Psychofortology:** The origin of psychological strength.

In South Africa a group of researchers expanded the salutogenic model in establishing a sub-discipline of Psychology called 'psychofortology', which refers to the science of psychological strengths (Van Niekerk, Van Eeden & Botha, 2001). An aspect of this sub-discipline is the concept of **resilience** – a person's ability to 'bounce back'. Researchers cannot commit to a single definition for resilience but they do agree on some shared outcomes of resilient individuals, including higher intelligence, lower novelty seeking, lower affiliations with delinquent peers, and an absence of externalising behaviours, substance abuse and juvenile delinquency (Jew, Green & Kroger, 1999). Resilience seems to incorporate high levels of self-esteem, personal control and optimism. Optimism refers to the standpoint that positive things are likely to happen (Lewis, 1999; Sarafino, 2002).

Various studies have confirmed that **hardy** individuals tend to be less stressed and healthier than weaker, or more sensitive, individuals. Sarafino (2002: 111) comes to the following conclusion: 'Hardiness, resilience and coherence have a great deal in common and may be basically the same thing.'

### Stress management

We can reduce the potential for stress in our lives through increased social support, improved personal control, better time management, exercise, proper preparation for stressful events and the use of other stress management techniques that help us to cope more effectively. These techniques range from the use of medicinal drugs to muscle relaxation and hypnosis (Bourne, 1995).

### Multi-domain functioning

Van Niekerk and Prins (2001: 32) highlight Winiarski's biopsychosocial/spiritual model and remind us of his words: 'If we think it through ... it seems that *every aspect* of life has biomedical, psychological, social and spiritual components that affect one another.'

### Social support

This encapsulates the perception of comfort, caring or help a person receives from other people (Louw & Edwards, 1998). Bishop (1994) believes that social support makes people feel loved and accepted, supplies to us important information about how to understand or cope with what is happening, assists us by providing finance and resources, and gives us social companionship. Social support has been named one of the most underestimated contributors to health and well-being (Forshaw, 2002).

### Community health and health workers

The ANC's (1994) primary health care approach states that every person has the right to optimal health. This approach has a strong preventative focus. There are three focus aspects of prevention:

1 **Primary prevention** consists of actions taken to avoid disease, injury or stress.
2 **Secondary prevention** refers to identifying and treating an illness, injury or stressful event.
3 **Tertiary prevention** attempts to decrease the long-term effects of disabilities or diseases that already have clinical symptoms. It can include, for instance, rehabilitation of a patient (Naudé, Heyns & Wessels, 2001).

## HEALTH ISSUES

### Poverty

Nearly 40% of young children in South Africa are exposed to poverty and neglect, and an estimated 52% of South African households earn less than the 'poverty line' amount of R300 per month (Donald et al., 2000; Eloff, 2001). These people, the majority of whom are black, are more prone to health and safety risks indicative of malnutrition, infection and injury than those who have no financial difficulties (Donald et al., 2000; Van Niekerk & Prins, 2001).

Many children living in poverty have not been exposed to situations in which coping skills could be developed to meet the needs of our complex society. A disadvantaged background is common in South Africa. It

affects children's learning extensively and relates to an increased risk of failure in school. Many South African children go hungry during class; experience violence; do not know how to use pencils, paper and books; have not heard stories or songs at home; experience poor discipline at home; have few opportunities to observe and ask questions; and do not understanding the language used in the classroom (Winkler, 2002).

Malnutrition beginning in and around the fourth month of pregnancy that extends into the first two years of life has significant impact on the brain development, learning and behaviour of children (Mwamwenda, 1995). Eloff (2001) notes that one of the priorities of the South African government is to promote learner development during early childhood through the introduction of a compulsory reception year (Grade R) and intersectional support programmes for children from birth to five years of age.

### HIV/AIDS

AIDS, or Acquired Immunodeficiency Syndrome, is an illness brought about as a result of earlier infection with HIV (Human Immunodeficiency Virus) (Gillis, 1996; Donald et al., 2000). Coombe (2002) states that although we have known about the HIV virus since the late 1970s, our initial response was largely biomedical and focused on preventing the spread of the disease. Evidently, these strategies have not been effective. Coombe (2002: vii) comments that 'as HIV/AIDS spreads, individuals, families, communities and nations must learn to live with the disease'. About 10% of those infected worldwide live in southern Africa (Coombe, 2001). At least 20% of the adult population in South Africa is living with HIV/AIDS (Potgieter, Roos & Du Preez, 2001). The risk of HIV infection to unborn children, young women and girls less than 20 years of age is of particular concern. We must realise that increasingly unmarried couples, teenage pregnancy, rape and sexual abuse, disturbed family relations and overpopulation are problems in South Africa that facilitate the spread of HIV (Donald et al., 2000).

Ebersöhn and Eloff (2002) feel that children in South Africa are affected by HIV/AIDS to the extent that those living in infected communities suffer from poor nutrition and ill health, and show signs of failure to thrive. They also note that most of these children have inadequate access to health care and tend to die of common illnesses such as measles, diarrhoea and respiratory infections (Ebersöhn & Eloff, 2002). Other factors influencing these children's health are psychological challenges presented by issues such as grief, loss of identity, shame, stigmatisation, fear of abandonment and rejection, and death (Ebersöhn & Eloff, 2002).

On the topic of HIV/AIDS, it is important to look briefly at the immune system. Our body has a complex defence system acting against a wide range of pathogens. First, there is our skin and mucous membranes. Second, when a foreign object passes through the skin or mucous membranes a defence is generated by our enzymes, other substances in our stomach, tears, sweat, skin oils and saliva. When pathogens defeat the first two lines of defence our immune system is activated. This has particular white blood cells that patrol the body and are on constant alert for foreign bodies (Beers & Berkow, 1999; Feigenbaum & Veit, 2003). When we are healthy but stressed, our immune system is less able to function properly (Forshaw, 2002). It is not difficult to imagine the far greater impact stress has on a person suffering from HIV/AIDS.

If people have tested positive for HIV, they are HIV-infected – they do not automatically have AIDS. They can develop AIDS-related illnesses, experiencing symptoms such as diarrhoea, fevers, fatigue and night sweats, but have not yet developed the opportunistic infections characteristic of Aids itself (Bishop, 1994). Roughly three to five years pass from the time of acquiring the HIV virus to developing AIDS, and another two years pass to the time of death (Mwamwenda, 1995).

## Disease and illness

'Human diseases represent changes in the normal structure or function of the human body' (Feigenbaum & Veit, 2003). These changes can either be shown by specific symptoms or can be asymptomatic until they have progressed sufficiently to show symptoms. Various diseases exist, including contagious, degenerative, congenital, developmental and chronic diseases. We note that some children fall ill and others stay well. This introduces us to the concept of **susceptibility** (which focuses on whether or not a person is at risk). There are various factors that contribute to or complicate susceptibility, such as genetic mutations or defects, environmental pollutants and stressors, socio-economic factors, risk-taking lifestyles, drug abuse and disabilities (Ogden, 2001; Feigenbaum & Veit, 2003).

## Disabilities

When working with children who have intrinsic barriers (or disabilities) to learning, it is useful to categorise the different barriers so that accommodations can be made accordingly. Intrinsic barriers include:

- **Physical barriers:** Disabilities affecting movement or use of limbs.
- **Sensory barriers:** Visual or hearing disabilities.
- **Neurological barriers:** Brain lesions; damage or dysfunction such as cerebral palsy, spina bifida and epilepsy.

**Intrinsic barriers to development and learning:** Specific barriers, including genetic problems, brain damage, personality and disabilities (Department of Education, 1997; Green, 2001).

**Extrinsic barriers to development and learning:** Systemic barriers, including the education system; socio-economic issues such as poverty, violence, crime, substance abuse and HIV-infection; community attitudes to both learning and disability; and language issues (Department of Education, 1997; Green, 2001).

- **Mental barriers:** From wide continuum giftedness to severe and profound mental handicap.
- **Chronic diseases and infections:** Malnutrition, chronic respiratory infections, chronic otitis media, allergies and asthma, parasite infection, HIV-infection and tuberculosis.
- **Autism:** Severe disorder of thinking, communication, interpersonal relationships and behaviour (Kapp, 1991; Donald et al., 2000; Sands, Kozleski & French, 2000; Feldman, Gordon & Snyman, 2001; Smith, 2001).

Feldman et al. (2001) focus strongly on ways in which educators can prepare their classes for these kinds of barriers. We can explore mobility, physical management and positioning, placement of instructional materials, and adaptations and assistive devices.

### Learning difficulties

There is a wide range of barriers which hamper learning. Some barriers can be overcome quickly, others require more time and effort. Children with disabilities may also have some of these problems, which include mild intellectual difficulties, communication difficulties, specific learning difficulties and emotional difficulties (Donald et al., 2000). Here, too, there is a variety of methods that educators can use to prepare their classes for such difficulties. Ebersöhn and Eloff (2003) suggest focusing on and mobilising the assets, capacities and abilities of the children.

### Substance abuse

'**Drug abuse** refers to the excessive use of a chemical substance, which results in the impairment of an individual's mental, physical or emotional state of well-being' (Gillis, 1996: 107). Drug abuse in young people may be triggered by either a desire for acceptance in their peer group, curiosity or 'copycat behaviour', or a progressive need to relieve anxiety or boost self-confidence (Jones, 1991; Gillis, 1996; Brumback, Mathews and Shenoy, 2001; Ogden, 2001). Abuse or misuse of drugs usually occurs because it makes people feel better, less unhappy, less alone, less alienated, less different and less concerned about the past or the future (Ludwig, 2003). Drugs fulfil individuals' needs that are not fulfilled in other, healthier ways. Early education for children and parents can be a means of helping children develop self-confidence and security, and thus the ability to withstand the need to abuse drugs. Unfortunately, Ludwig (2003: 346) believes that 'drugs are likely here to stay' because 'they are part of culture, religious, social rituals and activities, and medical practices'.

## Mental health

**Mental health** utilises a deficit paradigm that highlights disorder and dysfunction. There is a prevailing argument that psychiatric diagnoses are 'stigmata' or derogatory labels that are used as a means of describing behaviour that annoys or offends people (Jones, 1991). Van Niekerk and Prins (2001) refer to an **alternative paradigm** that conceptualises mental health through a focus on assets, competencies and strengths. This features the already mentioned salutogenic model of Antonovsky that initiates the new directions of capacity-building, morbidity prevention and the enhancement of the quality of life (Van Niekerk & Prins, 2001; Sarafino, 2002).

**Mental health:** A medically bound term utilising a deficit paradigm that highlights psychiatric disorder and dysfunction.

Although we are focusing on competencies and strengths, it is important also to take cognisance of and understand the psychopathological disorders according to the *Diagnostic and Statistical Manual of Mental Disorders (DSM IV)*. According to the *DSM IV*, a **clinical disorder** is 'a clinically significant behaviour or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (i.e. painful symptom) or disability (i.e. impairment in one or more areas of functioning) or with a significant increased risk of suffering death, pain, disability, or an important loss of freedom' (APA, 1999: xxi; Wenar & Kerig, 2000).

Poor mental health influences a child's ability to learn, which in turn negatively affects the grown child's ability to make healthy choices in areas such as sexual activity, diet, exercise routine and decisions to seek medical care.

## Child abuse

The National Institute of Child Health and Human Development in the USA compiled this definition of abuse: 'Behaviour towards another person, which (a) is outside the norms of conduct and (b) entails a substantial risk of causing physical or emotional harm. The behaviour included will consist of actions and omissions, ones that are intentional. They will have severe, mild, or no immediate adverse consequences' (Wenar & Kerig, 2000: 304). In South Africa, where children are concerned, the main distinctions of violence appear to be political violence, gang violence, general crime violence and violence in relationships (child abuse in particular) (Donald et al., 2000). Relationship violence, alcohol abuse and problems regarding sexuality often occur together.

## Children as caregivers

In communities throughout the world, young children are often cared for by their older siblings. In their 'Child to child' programme, Werner and

Bower (1995) found that children could be helped to improve the well-being of their younger brothers and sisters more effectively than doctors and health workers.

Another challenge existing in South Africa is the amount of children being orphaned by parents dying of HIV/AIDS. As a result, many of them become caregivers, taking care of other children and even taking on the role of head of the household. They are usually unable to continue with their education; they tend to be stigmatised and experience psychosocial trauma (Coombe, 2002). One of the most important contributions to the plight of these children would be psychosocial support and childcare.

## CONCLUSION

It is clear that the topic of health has become more complex than ever. Although it seems as if 'common sense' and basic knowledge and skills are essential in upholding health, the literature and research point to the value of the multi-domain functioning of a person. It is therefore essential for educational psychologists not only to take cognisance of the health and well-being of learners but also to make these two of their core issues.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 How would you formulate your own definition of health and well-being?
2 With which traditional thinking do we associate health?
3 What would be the importance of mind-body integration in health and well-being?
4 How can health behaviours influence stress?
5 What would you consider as the core of health promotion?
6 How would you use the different types of health promotion in learning support?
7 What would be the main difference between disabilities and difficulties?
8 How would the health issues mentioned in this chapter be relevant to education?

## VOICES

We developed a '**h**appy **h**ealthy **h**elper' philosophy in our school. This is a whole-school initiative. Health promotion is now an enjoyable, active and interesting aspect of every school day. Learners teach their parents about health and unwearyingly change their own health behaviours. Every day I experience the healing power of 'healthy smiles'.

– Secondary school teacher

After brake we sing the $H_2O$ song and then drink water because it helps me to think better.

– Grade 3 learner

## APPLICATION STRATEGIES

The strategies are as follows:

- Understand the learner holistically before coming to any conclusions.
- Incorporate practical health promoting activities in all areas of learning.
- Encourage all aspects of health promotion as a whole-school approach.
- Focus on learners and educators alike.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 As I worked through this chapter how has my view of health and well-being changed?
2 What will I do differently in my encounters with children now that I have read this chapter?
3 In which areas of Educational Psychology do I think health and well-being can be emphasised more?
4 How willing am I to consider health promoting behaviour for myself?
5 How willing am I to consider health as an essential part of learning?

## TEN FACTS ABOUT HEALTH AND WELL-BEING

1 Health refers not simply to 'being well' but also to wellness in the physical, mental, emotional, social and spiritual domains.
2 Health psychology relates the interaction of thought, feeling and behaviour to health.
3 Health behaviours comprise either engaging in positive activities or avoiding harmful ones.
4 Stress is an environmental demand that generates a multi-domain response from the body and can either be positive (eustress) or negative (distress).
5 When people are stressed their immune systems are less able to function.
6 Health promotion refers to ways of doing, thinking, feeling and interacting that enhances well-being and reduces stress.
7 A sense of personal control seems to be a strong health promoter for adults and children alike.
8 Lifeskills refers to a range of coping behaviours to address problems, adapt to changes and handle crises and conflicts.
9 Every barrier to development and learning has a potential risk of hindering health and well-being.
10 Health-related issues have a direct effect on learning.

## SUGGESTED READINGS

Sarafino, EP (2002). *Health psychology: Biopsychological interactions* 4th edition. New York: John Wiley.

This is a condensed, academic and practical health psychology reference. It handles some core issues with enlightened reflections and self-assessments. It follows a bio-psychosocial approach and focuses on issues such as illness, stress, coping, lifestyles, pain and many others.

Van Niekerk, E and Prins, A (eds.) (2001). *Counselling in South Africa: A youth perspective.* Sandown: Heinemann Publishers.

This book is mainly concerned with the counselling aspects of youth in South Africa. It provides an excellent reference for well-being, with reflections on psychological strengths and vulnerabilities.

Weinstein, E and Rosen, E (eds.) (2003). *Teaching children about health: A multidisciplinary approach* 2nd edition. Australia: Thomson Wadsworth.

The authors have created a practical curriculum for health education in schools. The content is inspiring and strongly emphasises the importance of health education, especially towards healthy living and health risk behaviours. This reference provides learning experience worksheets for effective handling of different health issues in the school.

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# Behaviour

Michelle Finestone

## INTRODUCTION

A person cannot fail to communicate. Children communicate through their behaviour. Communication may be subtle or obvious, expressed in verbal or non-verbal behaviour. Crying is one of the ways in which babies communicate their needs to their mothers. Rebellious behaviour can be the adolescent's way of communicating her independence. Effective communication requires that the message sent is decoded correctly. In order for us to effectively decode (understand) children's behavioural messages, we must have knowledge of the child as a developing person and of the context in which the behaviour occurs.

Behaviour does not occur in a vacuum. A child's behavioural style and his environment not only interact but also modify each other. The child's behaviour has as much of an effect on his parents' and teachers' actions as their behaviour has on his actions.

According to the *Concise Oxford Dictionary* (1999) the meaning of the word 'behave' is to 'bear oneself in a particular way'. In his book *The human zoo,* the eminent zoologist Desmond Morris (1969) compares animal behaviour to human behaviour. He (1969) rejects the notion that humans are trapped in a concrete jungle, because they behave differently to the inhabitants of a real jungle. In a real jungle, wild animals do not, for example, mutilate themselves, develop stomach ulcers, suffer from obesity or commit murder. He (1969) concludes that the city is not a concrete jungle, but a human zoo. He (1969) gives attention to child-play, which he sees as the child's way of inventing new patterns of behaviour and journeying on an ultimate voyage of discovery.

## DEVELOPMENTAL STAGES AND COMMUNICATION

Behaviour can be observed, studied and recorded (Mwamwenda, 1995). The age-old debates of nature versus nature and nature via nurture seem easier to resolve when we observe behaviour. **Nature** describes a person's biological inheritance; **nurture** refers to the surrounding conditions and influences that affect the development of a person, such as a child's relationship with his parents. Nature (genes) and nurture (environment) act together; they are inseparable.

Thorough knowledge of **child development** is critical in understanding a child's behaviour. Children's needs and sensitivities vary with age, gender and experience. Their resilience and vulnerability to different behaviour problems also change with age (Woolfe & Dryden, 1996). A so-called problem may be a normal reaction to a difficult situation. It is also possible that behaviour may be 'normal', but that the perception of it is distorted. For example, a six-year-old child is naturally busy and

**Child development:** Includes physical, intellectual, social, moral and emotional development.

inquisitive. A person not knowledgeable of the behaviour of a child of this age may see the behaviour as hyperactive and deem the child in need of professional help.

Children are developing all the time in several different areas, which are all closely related. The following developmental areas have an impact on the behaviour that children display, as is also illustrated in Figure 5.1 below:

- **Physical development** involves the changes occurring in a child's body that include growth, functioning, structure, hormonal changes and coordination. These changes enable the child to achieve new behavioural tasks.
- **Intellectual development** involves the development of the child's cognitive abilities that will inform her perception and understanding of the world, which shape her behaviour.
- **Social development** involves the ability to relate to other people and the development of appropriate interaction patterns required in social situations.
- **Moral development** involves the growing awareness of the differences between right and wrong.
- **Emotional development** involves the increased understanding of the child's own feelings and the development of suitable behaviour in response to those (Meyer, in Louw, Van Ede & Louw, 1990).

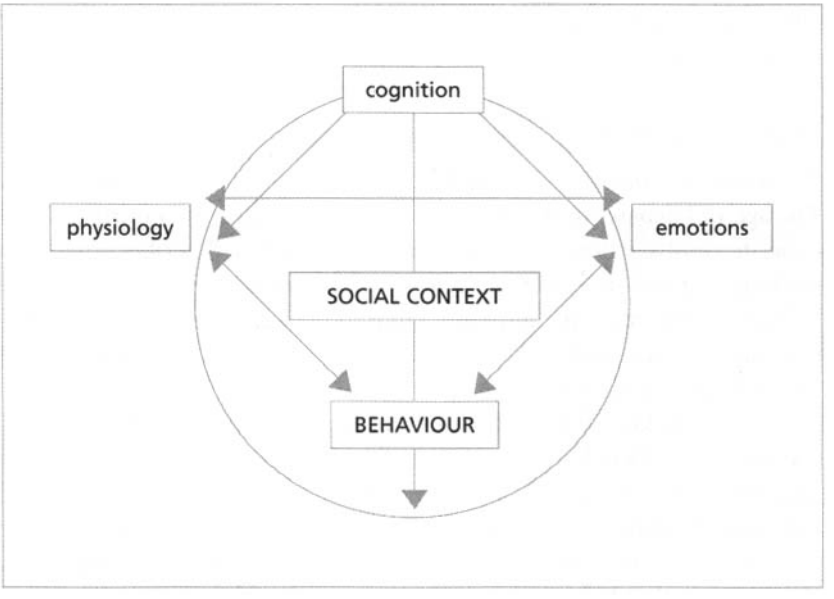


Figure 5.1 A behavioural model

Stages of development and behaviour

**Infancy and early childhood**

During this stage a child needs the close experience of attachment with a primary caregiver. When this relationship is adequate, it will provide him with a sense of safety, of being positively wanted and of personal competence.

**Early school years (4–7 years)**

During this stage the child experiences contact with extra-familial contacts on entry to kindergarten or school. This contact is necessary for preparing him for social independence. He must learn new roles and behaviours. The central developmental task is effective self-monitoring and self-control. At this stage, the child will indicate through his actions that he is experiencing challenges to his personal development. Typically, a pattern of behavioural excess or lack of action is reported, with an increase of emotionality. The child displays a limitation in reporting his own thoughts. At an interpersonal level, the child is likely to display an egocentric behavioural style – he does not take other people's feelings into consideration. He tends to perceive events and other people in concrete and absolute terms.

**Late middle childhood (8–12 years)**

Behaviour displaying greater responsibility and independence is expected of the child in this phase. Such exposure leads to a gradual increasing refinement of social skills. The important developmental challenges that the child faces in late middle childhood are self-control, social competence and the emergence of an elaborated self-concept. The child makes use of self-reflection, logic and reason, albeit still in a fairly concrete manner. In his peer relationships he demonstrates cooperation and impulse control for the sake of social competence.

**Adolescence**

An adolescent experiences social and physical changes that influence his view of himself and his environment. The central task in this phase is to form a self-identity. The adolescent's cognitive capacity for higher order thinking helps him to cope with this developmental task. A broader repertoire of coping strategies and metacognitive skills helps him to amend personal discomfort. An

adolescent is usually resistant to an adult's concern about his behaviour distress. He seeks independence, yet still depends on his caregivers for support. This contributes to his experience of inner conflict (Louw et al., 1990; Downey, in Woolfe & Dryden, 1996; Saarni, in Bar-On & Parker, 2000).

## ASPECTS OF BEHAVIOUR

### Stimulus and response

**Stimulus:** Any object, item or action that directly or indirectly contributes to a change in one or more aspects of perceptible or imperceptible behaviour.

**Response:** Perceptible or imperceptible behaviour.

A child is not a vessel through which information from the outside world simply passes, failing to give cognitive, perceptual or emotional input. A **stimulus** refers to any object, item or action that directly or indirectly contributes to a change in one or more aspects of perceptible or imperceptible behaviour. **Response** is perceptible or imperceptible behaviour. A child does not merely respond to a stimulus from her environment, she also actively assigns certain meanings to events. The behavioural risk factor here lies in the possibility of the child responding inadequately to demands (stimuli) placed on her, because she is immature in her adjustment processes.

**'Fight-or-flight' response:** The body's attempt to maintain homeostasis or balance.

A certain physiological process evident in the study of behaviour requires a brief explanation: the '**fight-or-flight response**' is characterised by the body's attempt to maintain homeostasis or balance. When a child perceives an experience as threatening, she chooses either to fight it or flee from it. Physiologically, this process involves a series of events that begins with the stimulation of the sympathetic nervous system and endocrine system, during which adrenaline and noradrenaline rise in the blood. The heart rate, blood pressure, blood-sugar and respiration activities then increase. At the same time, the blood flows away from the skin towards the muscles. The fight-or-flight response can be highly adaptive when certain threats need to be avoided (Bishop, 1994) – for example, a child needing to escape from molestation. This response can also be maladaptive, as seen in children who take risks without considering the possible consequences – for example, the impulsive child who crosses a street without looking for oncoming cars. Their impulse control seems to be low when confronted with this type of response.

**Thoughts, feelings and beliefs:** As the building blocks of a child's behaviour, these influence the physiological responses that take place in the body.

The physiological responses that take place in the body are also influenced by the thoughts, feelings and beliefs of a child. **Thoughts**, **feelings** and **beliefs** are the building blocks of a child's behaviour. Dynamic interaction is a basic principle in the process of individual functioning. Stimulus-response relations and other personality factors model a unidi-

rectional relation between cognitive-emotional factors and behaviour. The mental, behavioural and biological systems of a person are involved in a continuous loop of reciprocal interaction (Maddi, 1996). The desire for acceptance felt by children is an example of this reciprocal interaction.

A child wants 'to belong'. If the child displays prosocial behaviour and feels excluded, he may resort to antisocial behaviour to address this need. His behaviour is influenced by how he evaluates himself. A low self-esteem stemming from a feeling of inadequacy may result in problematic behaviour. By displaying such behaviour the child shows his need for affection and autonomy. Attention seeking behaviour is evident in the inappropriate ways in which some children behave to attract more attention and overcome their feeling of inferiority (Porter, 2000).

The term 'emotion' can mean different things to different people. It primarily refers to the positive or negative feelings that are produced in a specific situation. For example, a child feels elated when she is chosen to play in the school's first netball team. Carlson (1994: 179) describes emotion as 'patterns of physiological responses and species-typical behaviour'. Emotional response consists of three components: behavioural, autonomic and hormonal. The **behavioural** component refers to the movement of the body's muscles, which are appropriate to the situation that elicits this movement. **Autonomic** responses generate quick mobilisation of energy, and **hormonal** responses reinforce the autonomic responses.

Feelings, thoughts and beliefs also arise from the child's experiences and behaviours. Children express feelings in a number of ways, for example:

- **Bodily behaviour:** Posture, body movements and gestures.
- **Facial expressions:** Smiles, frowns and raised eyebrows.
- **Voice-related behaviour:** Tone of voice, pitch, intensity and emphasis.
- **Observable autonomic physiological responses:** Quickened breathing, blushing and pupil dilation (Egan, 1998).

American author, Gerard Egan (1998: 153), states:

> Overstressing insight and self-understanding can stand in the way of action instead of paving the way for it. Constructive behavioural change is required whether the behaviour is internal, external or both. Internally we daydream, ruminate on things, believe, make decisions, formulate plans, make judgements, question motives, approve of self and others, disapprove of self and others, wonder, value, imagine, ponder, think through, create standards, fashion norms, mull over, worry, panic, ignore, forgive, rehearse – we do all sorts of things. These are behaviours, not experiences. These are things we do; they are not things that happen to us.

Egan (1998: 153) concludes that the 'ultimate payoff' lies in changing challenging external behaviours and reinforcing positive behaviour. Children must be helped to identify their assets as well as their self-limiting blind spots by exploring cognitive perspectives, behaviour and emotions, which can also become a search for resources.

In order to understand the developmental and learning needs of a child, we need to move away from the medical-deficit model of normal and abnormal behaviour towards an eco-systemic way of looking at each child. The medical-deficit model phrases 'disorder' and 'psychologically ill' have become redundant.

**'Goodness of fit':** This occurs when a child's environment accommodates the child's constitutional make-up, as a result of which she will probably show minimal challenging or difficult behaviour.

The **'goodness of fit'** model proposed by Thomas and Chess (1977) sets out to connect the child with her environment. When this environment accommodates the child's constitutional make-up, it is likely that she will show minimal challenging or difficult behaviour. Hence the term 'goodness of fit'. However, if there is a mismatch between the child's style and context, a **'poorness of fit'** results and challenging behaviour usually occurs. The child cannot be seen as separate from the environment in which she lives and where development occurs (Woolfe & Dryden, 1996; Harcombe, in Engelbrecht & Green, 2001).

**'Poorness of fit':** If there is a mismatch between the child's style and context, he will probably show challenging behaviour.

William Glasser (in Porter, 2000: 140) has this to say:

> It is the responsibility of each individual child to work to succeed in the world, to rise above the handicaps that surround him; equally it is the responsibility of the society to provide a school system in which success is not only possible, but probable.

**Attitudes:** Beliefs and opinions that can predispose individuals to behave in certain ways.

## Attitudes

Attitudes are beliefs and opinions that can predispose individuals to behave in certain ways. Attitudes are acquired through experience and have a direct influence on behaviour. We change our attitudes to make these more consistent with our behaviour. Strong attitudes can predict behaviour more effectively than weak ones, and attitudes formed by personal experience are often stronger in nature. Self-awareness increases the consistency between our attitudes and our overt behaviour.

Attitudes can be acquired through social learning, which involves three basic forms of learning:

1 **Classical conditioning:** This is learning based on association when one stimulus regularly precedes another. The one that occurs first may soon become a signal for the one that occurs second.
2 **Instrumental conditioning:** Here a child plays an active role in the learning process, which ranges from receiving selective rewards or punishments to learning to hold the 'right' views.

3 **Modelling:** This is learning that takes place when a child witnesses examples and models her behaviour accordingly (Baron & Byrne, 1994; Leslie, 1996).

## Attributes

Attributes are characteristic qualities that a person has. **Attribution** is the process through which we seek to identify the causes of another person's behaviour in order to gain knowledge of their traits and dispositions. 'Learned helplessness' is an attributional style which refers to the negative effects we experience when we are exposed to negative events which we cannot prevent or stop. As a result, we come to believe that nothing we do matters, and we experience powerfully negative feelings and low levels of motivation. For example, children who are exposed to repeated acts of molestation tend to be depressed and show a lack of hope – this illustrates the learned helplessness they are feeling. They might try to keep the molestation a secret because they might think that no one will believe what they say, or that they might be punished for 'allowing' the molestation to occur. Their feeling of hopelessness may also lead them to believe that they cannot stop it from happening (Baron & Byrne, 1994).

**Attribution:** The process through which we seek to identify the causes of another person's behaviour in order to gain knowledge of their traits and dispositions.

**Motivation:** Our internal processes which serve to activate, guide and maintain our behaviour.

The humanist approach to the study of behaviour proposes that problematic behaviour is merely a symptom of the problem, and not the problem itself. Children are naturally curious and explore their surroundings without the skills to predict what can happen to them. For example, they may act without knowing that they are hurting (literally and/or figuratively) another person. It is sometimes difficult for children to regulate their emotions and manage their feelings (Porter, 2000). Problematic behaviour may occur when a child copies someone's behaviour without knowing that it is inappropriate – when, for instance, a child exposed to corporal punishment displays equally aggressive behaviour towards his peers.

## Choice

According to Glasser (in Porter, 2000), children are capable of adopting self-responsibility, and behave as they choose. In this way, behaviour is seen as a **choice.** The environment plays a significant role in the behaviour repertoire that is chosen by the child. Acceptable behaviour occurs when the child regards her environment in a positive light – as a place where her needs will be met. Following the premises of the Maslow's (1970) hierarchy of needs (discussed further in Chapter 21), survival and security are seen as the most important needs. When the child is hungry or fears for her safety, her behaviour will be directed towards addressing these needs. There follows the need for love; the importance of meaningful relationships between children and adults cannot be ignored. Then, a feeling of

**Choice:** A child who adopts self-responsibility chooses how to behave; the choice is strongly influenced by the child's environment.

power accompanies the child's awareness of her ability to make her own choices, after which the child strives for independence. Finally, the child wants to have fun – an important need that is sometimes underestimated (Porter, 2000).

### Observation and intervention

As we can see from the literature, the understanding and observation of behaviour has changed over time and continues to do so. The classroom can now be seen as a laboratory in which the brain and mind interact positively, resulting in learners' growth and development. Anything that affects brain functioning can also affect learning and behaviour. Moreover, anything that creates stress for a child could influence her behaviour and availability, or openness, for learning (Kline, Silver & Russel, 2001).

The 21st century lifestyle causes the situation of stressed parents, an impersonal school environment and disorganised communities that struggle to fulfil the most basic human need of belonging. Children can become estranged from their family, friends and school. Alienated children and youth are assigned a multitude of labels, most of which are unfriendly in nature. We should shift our focus away from the negative traits of troubled children and concentrate instead on the transactions occurring within their environments (Brentro, Brokenleg & Van Bockren, 1999).

When children display inappropriate behaviour, the aim of intervention is to change this behaviour so that their emotional needs are still being met, but not in violation of the needs of other people. In order to do this, intervention must aim to:

- involve the child
- guide the child towards identifying the behaviour that is causing him unease
- help the child to identify his needs and assets
- assess the child's behaviour by asking whether the child thinks his behaviour is effective
- encourage the child to find other ways of meeting his needs and mobilising his assets
- guide the child in taking responsibility for his behaviour
- commit to formulating a plan of new behaviour
- evaluate whether the plan is working
- understand the child (Porter, 2000).

Our schemas (the ways in which we view other people and the world) and self-schemas (our views of ourselves) have been linked to psychosocial

wellness. When a child's schemas are distorted or inaccurate, he may behave in a difficult way. For example, a child whose self-schemas include the notion that the world is a dangerous place over which he has little or no control is likely to display anxiety (Van Niekerk & Prins, 2001).

Not all children who are vulnerable or at risk display unacceptable behaviour. Factors that promote and maintain healthy development are called '**protective factors**'. Children displaying acceptable behaviour in spite of their vulnerability are seen as **resilient**. Protective factors can include:

**Resilience:** Children's ability to display acceptable behaviour in spite of their vulnerability.

- **Personal characteristics and traits:** These are emotional intelligence and competencies such as good interpersonal skills, a pleasant personality, problem-solving abilities, self-efficacy, a positive sense of self, good communication skills and high aspirations.
- **The child's environment:** This is characterised by a strong bond with at least one caring adult, adequate parenting, involvement in constructive activities and access to good schools (Durlak, 1998; Wenar & Kerig, 2000).

## Motivation

This term refers to our internal processes which serve to activate, guide and maintain our behaviour. Motivation helps to answer the question 'why', as in: Why does a child behave disruptively in certain circumstances? The **instinct theory** suggests that some behaviour stems from internal urges or instincts. Instincts are patterns of behaviour assumed to be universal in a species and independent of experiences that are elicited by specific stimuli. The **drive theory** of motivation suggests that biological needs create unpleasant states of arousal, such as hunger and fatigue. Thus motivation is seen as a process through which a child is driven to satisfy biological needs. The **expectancy theory** is derived from the notion that a child acts in a certain way because she believes that such behaviour will have a specific, desirable outcome (Atkinson, Atkinson, Smith & Hilgard, 1987). Behaviour is strategic and can best be understood as being in the service of purposes. Behaviour that at first does not seem to make sense may become clearer when examined in the context of the individual's knowledge of his strengths and weaknesses and the goals he wishes to accomplish.

**Social intelligence:** A model of personality and individual behaviour in which it is presumed that as people we know about ourselves and the social world in which we live.

The way in which children actively seek to engage in their social environment, and their pursuit of desired outcomes in the important domains of their lives, provide clues for understanding their behaviour. According to Zirkel (in Bar-On & Parker, 2000), **social intelligence** is a model of personality and individual behaviour in which it is presumed that as people we know about ourselves and the social world in which we

live. We use this knowledge to manage our emotions and direct our behaviour toward desired outcomes. The model presumes the following core assumptions of human behaviour:

- Behaviour is orientated towards the achievement of some purpose or goal.
- As people we are active rather than passive in pursuing our desired outcomes.
- Behaviour is social and takes place within a given cultural context.
- Behaviour is developmental and changes as we mature.
- Cognition is important, especially the creative and imaginative behaviour we display.

## CATEGORIES OF BEHAVIOUR

At the start of this chapter, we introduced the notion that children communicate through behaviour. According to Rutter (1987), a child's behaviour can be categorised as follows:

- **Appropriateness of age and sex:** Certain behaviour is acceptable at certain ages. It is acceptable for a two-year-old child to throw tantrums, but it is unacceptable for a school-age child to do so. Some boys show feminine traits and certain girls show masculine traits, but this rarely happens exclusively.
- **Persistence:** Many children show troubled behaviour at various stages of their development, such as anxiety and a reluctance to go to school. This behaviour may continue for a time, for example the 'terrible two' tantrums, but the phase usually passes. With children displaying behavioural problems, this maladaptive behaviour might continue into the next phase.
- **Life circumstances:** Children's emotions and behaviour fluctuate. Some children are more vulnerable and others more resilient in coping with life changes. We can expect behavioural and emotional difficulties in many children who experience stressful events.
- **Sociocultural setting:** It is impossible to classify behaviour as 'normal' or 'abnormal' in an absolute sense. When observing a child's behaviour, we need to look at the norms of her sociocultural milieu. For example, in certain cultures it is acceptable for a child to voice her opinion, while in others she is expected to remain quiet.
- **Extent:** Certain behaviours occur in isolation. Attention must be given to behaviour that occurs simultaneously with other, unacceptable behaviour.
- **Type:** Some behaviour attracts more attention than others. Nail-biting, for instance, is not of as much concern as aggressive behaviour.

This is not to imply that nail-biting is insignificant, but it is far less serious than physically hurting a person.

- **Severity and frequency:** The time frame in which behaviour occurs and the severity of it is significant. If a child repeatedly displays disabling panic attacks, he should receive attention.
- **Change:** It is necessary for us to note whether a child's behaviour at one point differs greatly from his behaviour at another, in the same situation.
- **Situation specificity:** The situations in which certain behaviour occurs must be assessed. For instance, if a child shows avoidance behaviour only in the school situation, then his experience of his schoolwork may be negative.

Professional intervention is warranted if a child's behaviour is unacceptable in the context and culture in which she lives, and if it is developmentally inappropriate. Behaviour that needs an urgent response can be divided into the following categories, as proposed by Porter (2000):

- **Behavioural excesses:** When certain behaviour lasts beyond the normal developmental stage, or occurs more frequently than is expected in a child of a specific age.
- **Behavioural combinations:** Behaviours which alone do not cause major management problems, but which, together with other problems, become disruptive, such as attention deficit disorders.
- **Mistimed behaviours:** Behaviours that are acceptable at another time and place, but not when and where they currently are occurring.

According to Kaplan, Sadock and Grebb (1994), Durlack (1998), and Wenar and Kerig (2000), behaviour problems include the following:

- Depression
- Withdrawal (the escape into a world of fantasy)
- Anxiety
  - obsessions (ongoing inappropriate and excessive ideas)
  - compulsions (ongoing inappropriate and excessive actions)
  - fear
  - phobia
  - post-traumatic stress
- Somatic complaints
- Elective mutism
- Tourette's syndrome and problematic tic behaviour
- Learning problems
  - reading
  - writing
  - maths

- Regression
  - thumb-sucking
  - nail-biting
  - enuresis (bedwetting)
  - encopresis (soiling)
- Negativism
- Conduct disorders
  - aggression shown to people or animals
  - deceitfulness or theft
  - destruction of property
  - serious violations of rules
- Attention deficit
- Hyperactivity
- Eating disorder
  - bulimia nervosa
  - anorexia nervosa
  - overeating
- Substance abuse
- Pervasive developmental problems
  - autism
- Schizophrenia

The behaviour children display in their social context is influenced by their feelings (emotions), thinking (cognition), physical development and cultural context. This is illustrated in the extended example below.

Case study

Nathan is a 15-year-old boy who spent more time in the headmaster's office than in the classroom. His story began with the death of his brother, who died of a congenital blood disease. Nathan was 12 years old and the loss of his older brother devastated him. According to Nathan, his brother was the best friend he ever had. He also thought that his brother was the favourite in his family – after all, the brother had been an excellent scholar and athlete. Extensive testing showed that Nathan had the same hereditary blood disease and that it could prove fatal if he did not take his medication on a daily basis.

Before his brother's death and the discovery of his own illness, Nathan achieved the highest marks in his grade. But Nathan's behaviour changed slowly over time. His grades dropped dramatically

and he started withdrawing from his friends. His parents were called in for a meeting at the school. His life orientation teacher pointed out that Nathan had intended to jump from one high wall to another in a death defying act. Luckily, he was prevented from doing so. His parents observed that he ate less, lost weight, spent a lot of time in his room and showed defiant behaviour. After cleaning Nathan's room, his mother once discovered marijuana in his backpack. Nathan told his mother that it was a once-off experiment. She was nervous of telling her husband because Nathan and his father did not have a good relationship. They hardly saw each other because his father worked late and spent his spare time as a lay minister in their congregation.

As time passed Nathan's behaviour worsened. He refused to take his medication, though he knew the consequences. He lied about his actions and whereabouts, and he stole money for drugs. The drug abuse resulted in poor impulse control, which led to several unfortunate events. Nathan was beaten up, and his girlfriend became pregnant with his baby. His parents and teachers at first tried to empathise, but increasingly he and they argued and he was expelled from school. He was referred to an educational psychologist.

The people in Nathan's life focused only on the behaviour they witnessed. They gave him the label of 'a difficult child'. However, therapy and family counselling showed that Nathan experienced depression following his brother's death. He was also frightened that his own disease could lead to his death. His behaviour originated in this fear of dying. He refused to take his medication because that would have meant that he accepted the fact that he was sick. He tried to escape the situation by using drugs, attempting to do death defying acts and having unprotected sex. His negative behaviour spiralled uncontrollably. He did not receive the help he desperately needed, and instead was reprimanded and lectured.

Nathan's parents were given guidelines on how to communicate with their child. He received individual therapy and was given a second chance at his school. His teachers were also involved in his treatment. They were informed about how to handle his outbursts. The new understanding of Nathan's behaviour achieved by the important people in his life meant that Nathan's future looked brighter.

The educational psychologist's role is three-fold. First, there is the role of **assessor.** The educational psychologist is trained in the skills of scientific observation and in the use of psychometric instruments. Second, there is the role of **therapist.** With therapy, children are challenged and assisted in changing their disruptive behaviour. Third, there is the role of **advisor** to teachers, parents and policy-makers. The educational psychologist enters the world of a child if she is identified as having a developmental problem, which usually manifests as emotional, behavioural or learning difficulties. The educational psychologist knows that behaviour is the child's way of communicating, and aims to alleviate the symptom(s) by searching for the needs and assets of the child. Scientific knowledge of behaviour and therapeutic skills are prerequisites for helping the child behave according to her developmental level and context. The educational psychologist combines the functions of educationalist and psychologist, through taking into account the intrapersonal and social context of a child when observing and assessing her behaviour.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 Discuss the influence of the following environmental factors on the behaviour of children in the South African context:
   (a) the influence of today's media (television, videos, video games, movies and magazines)
   (b) the influence of the economic situation (limited access to resources such as water and housing; unemployment)
   (c) unprotected sexual behaviour (Aids, rape, child molestation)
   (d) single parent families
   (e) abuse of drugs and alcohol
   (f) children in violence.
2 Identify the personal, social and environmental aspects that may attribute to the resilience of children living in the above circumstances.

## VOICES

It was interesting to read about the communication and behaviour comparison. I sometimes fall into the trap of only focusing on the negative behaviour. I tend to forget to look at the underlying causes of disruptive behaviour. After reading the chapter on behaviour I will give more attention to the child's whole social context. I now understand that behaviour is a complex phenomenon with lots of facets.

– JC Down, Grade 6 teacher, Gauteng

After my parents got divorced, I stopped doing my homework and I cried a lot. One afternoon my teacher called me in after school and said she saw that something bothered me. After we talked, she called both my parents. With my permission, of course! We all talked and I feel much better now.

– Janet, Grade 6 learner

I sometimes misbehave, but only in the classes where my teacher irritates me. I especially do not like my maths teacher. She expects high marks from me, but I really suffer with maths.

– Grant, Grade 8 learner

## APPLICATION STRATEGIES

To assess and address disruptive behaviour, the strategies are as follows:

- Try to establish what the child is communicating through his behaviour.
- Take the child's whole environment into consideration.
- Take the child's developmental stage into consideration.
- Look at the child's needs and assets.
- Take into account the unique thoughts, feelings and beliefs of the child.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 What will I do differently now that I have read about the ways in which a child communicates through her behaviour?
2 How will I assess a child's behaviour?
3 When will I refer a child displaying difficult behaviour?
4 How will I handle a child displaying difficult behaviour?
5 What assets will I focus on when addressing difficult behaviour?

## TEN FACTS ABOUT BEHAVIOUR

1 One third of children regarded by teachers as having special needs have both learning and behavioural problems.
2 Reluctance to go to school may be due to fear of separation from the caregiver, rather than any feature of the school itself.
3 Drawings are an important tool for the educational psychologist in behavioural and emotional assessments.
4 Some children in middle childhood mask possible depressive symptoms with a wide variety of deviant behaviour.
5 Tantrum behaviour is acceptable between the ages of two and three.
6 The media has a profound impact on children's behaviour. For example, the movie 'Superman' led to many accidents because children tried to fly, attaching ropes to their necks and subsequently almost hanging themselves.

7 By watching and imitating others, young children learn how to interact socially. They learn what is acceptable behaviour and what is not.
8 Children who are punished in anger are more likely to become violent themselves.
9 A fearful, angry or violent child may have experienced emotional problems or abuse.
10 Children who have sleep-related breathing problems, such as snoring, are more likely to have daytime behaviour problems such as hyperactivity, attention deficit and aggressiveness.

## SUGGESTED READINGS

Engelbrecht, P and Green, L (2001). *Promoting learner development. Preventing and working with barriers to learning.* Pretoria: Van Schaik Publishers.

Promoting learner development, this textbook is written by South Africans for South Africa. The examples used and strategies proposed are thus relevant for the diverse South African context. The child is seen as part of an eco-systemic model. The behaviour of the child with barriers to learning is explored.

Watson, TS and Steege, MW (2003). *Conducting school-based functional behavioural assessments. A practitioner's guide.* New York: Guilford Press.

This is a manual for educational psychologists, counsellors, teachers and other school-based professionals. Step by step it shows how to conduct a behavioural assessment and to plan for intervention. Questionnaires and worksheets are included to complete a reliable and valid behavioural assessment. It is a practical resource manual with straightforward descriptions and realistic examples.

Wenar, C and Kerig, P (2000). *Developmental psychopathology. From infancy to adulthood* 4th edition. Boston: McGraw-Hill Higher Education.

The authors explore children's behaviour by making use of a developmental approach. The book is an introduction to the origins and course of behavioural and emotional problems.

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# Reading and Writing

Cecilia Bouwer

## INTRODUCTION

The acts of reading and writing are integral to literacy. In this chapter, we will therefore first construct an overall understanding of literacy by contemplating the current views on the concept. We will then look at reading and writing separately. With regard to each, the act *per se* will first be analysed to identify the points of challenge facing the learner; this will be followed by discussion on the development of proficiency. In conclusion, we will consider some difficulties and problems which could arise.

For the systems in which learners find themselves to render effective learning support, we always need to witness the particular learner's rich story – an act that entails at least two strands:

1 We need to note the learner's personal strengths and challenges with regard to the process, as well as the products of performance in the particular learning area.
2 We need to trace the task-related assets and barriers in the family, school and community, i.e. the factors which could support the learner's learning and those which have been hampering it.

To achieve this understanding, we essentially follow the same route with regard to a learning need of any kind:

- The first issue is for us to understand the nature of the particular learning area in which the learner is experiencing some form of barrier.
- Understanding the learning area gives us insight into the cognitive and emotional challenges which learners face in performing particular tasks.
- Understanding the demands in turn enables us to grasp how these could become difficulties and, for some learners, even form an enduring and growing barrier.
- Such understanding contains pointers that can help us devise meaningful, holistic ways of assessment which can ultimately inform effective measures and techniques of learning support by the system(s) in which the learner lives.

Begin your study of reading and writing by reflecting on the various texts that you have processed during the past week. These texts have possibly included SMSs on your cell phone; e-mails and/or other personal notes; information on posters and notice boards which you pass by every day; items from newspapers, magazines and/or the Internet; a novel and/or textbook; religious and/or lifeskills texts; and academic texts, class notes and assignments.

Bearing in mind the sheer variety of these texts, as well as the differing contexts that they represent, reflect further on these four questions:

1 What do you *do* when you read, and when you write? What do you look at, what do you listen to, what do you think?
2 What **knowledges** do you use?
3 What are the various **levels and forms of communication** in which you engage, and in which the text that you are processing may hopefully also be engaging *you?*
4 What **barrier(s)** do you contend with when reading or writing particular texts, and what **assets** and **strengths** are available to support you in circumventing or overcoming those barriers?

During the course of the chapter, use your answers to these reflective questions as a metacognitive frame of reference, constantly applying theory to practice and filling in details as your understanding of reading and writing intensifies. In this way, you will construct your own understandings of the challenges contained in reading and writing, and will finally translate these into effective principles for assessment and learning support.

We begin the construction by casting a firm foundation – a discussion of literacy *per se.*

## LITERACY

### The concept

What are the components of literacy? Which skills, or which **qualities**, make *you* eligible to wear the badge of literacy?

If you regard your reading and writing skills as the only components of your claim to literacy, you will need to rethink the concept. Significant shifts have occurred in the way literacy is presently viewed. An awareness has dawned that the printed word appears on more formats than paper alone. It has also become clear that communication via a medium other than paper (for example, the computer or other televisual equipment), and in a symbolic system other than the print representation of words, requires processing that might differ in some respects from the processing of paper-based print. These insights have led to the differentiation of literacy and thus to the concept of various **literacies**, such as textual literacy, computer literacy, symbolic literacy, graphic (picture) literacy and number literacy (numeracy).

The emphasis is currently on establishing a broad-based, strongly synthesising view of literacy. Essentially, the new approach could be said to equate literacy with communication, even including the thinking

which occurs through the medium of language. Thus literacy is now thought to encompass not only all acts of communication (reading and writing, as well as listening and speaking), but also the thinking that underpins the understanding and construction of basic concepts and subject area knowledge (Manzo & Manzo, 1995; Marsh & Hallet, 1999; Merchant, 1999; Pike, Compain & Mumper, 1997; Street, 1997; Tompkins, 1997; Vacca, Vacca & Gove, 2000). Eames (2002) propounds that literacy is actually an *agent* of change.

Thus it follows that literacy is viewed as one of the critical outcomes of an integrated, developmental process of constructive language acquisition, rather than as a discrete (separate), double-sided and measurable result of a person's formal education. The focus is no longer on the skills of reading (and then of writing) separately – Manzo and Manzo (1995) point out that the whole of the literacy concept is decidedly more complete, more authentic and more engaging. Sampson, Sampson and Van Allen (1995) prefer to speak of the **conventions** of literacy rather than **skills**, positing that these conventions are learned in the very process of authentic literacy transactions.

This new conception of literacy as an overall communicative competence opens up a wider range of texts to be processed. The term 'text' thus includes spoken and written text on screens, the vast amount of environmental print surrounding us, verbal art, factual material, public statement and interpersonal give-and-take, and hyperlinks in computer programs. The rich variety of present-day interaction makes it necessary for learners to acquire a flexible form of literacy, enabling individuals to easily interact with and switch between various types and styles of communication.

Understanding that literacy concerns all facets of communicative competence requires us to recognise that literacy practices might differ from the context of one family, community and system to another. This in turn reflects onto each of us individually. What are *your* communicative strengths? How did you come by these – what role did your environment play in the process? In which types and styles of literacy do you think that you still need to grow? How do these needs also reflect your environment? Your understanding of emergent literacy will help you to answer such questions.

### Emergent literacy

Use your knowledge of cognition and learning (discussed in Chapter 2) to conceptualise the phenomenon of emergent literacy. What is your understanding of the terms **learn**, **develop** and **emerge**, especially when you now think about them within the frames of the terms **communication** and **language acquisition**? Could any (and if so, which) of these

events occur 'automatically'? Which part(s), if any, should we ascribe to intentional **direct instruction**, **facilitation** and/or **mediation** of the conventions of communication?

Emergent literacy is key to the new conception of literacy. The term describes the child's developing awareness of the inter-relatedness of oral and written language. Children are born with the fundamental ability to make sense of the world and thus to acquire the conventions of spoken communication 'naturally' in the home and community. The principle of emergent literacy is based on the assumption that literacy as a communicative competence also develops gradually from within the child in accordance with these same abilities. It is believed that the processes of acquiring the competencies of conversing, thinking conceptually, reading and writing overlap or occur concurrently.

Godwin and Perkins (1998) argue convincingly that **story** influences personal, linguistic and cognitive development in specific ways. The term 'story' encompasses both the oral and written form, especially in a country such as South Africa, where so many communities maintain a strong oral tradition and a limited practice of reading and writing. In families with a strong culture of book literacy, story could be expected to contribute to the emergence of a child's literacy more fully in building concepts about print and meaning, the use of different kinds of texts, and 'readerly' behaviour, as described by Merchant (1999). An activity often observed is a young child pretending to read a book, endearingly simulating a story line, or repeating a much loved story. Pike et al. (1997: 8) hold the view that 'pretend reading is essentially practice reading, which enables children to become independent readers at some later time'; they maintain that the same applies to writing.

**Environmental print** is another significant factor in emergent literacy. Hallet (1999) observes that environmental print is often the first contextualised and meaningful print which a child encounters. Not every home and neighbourhood contains the same types and amount of print, but most do contain some items, however few. In South Africa today, even a home of illiterate parents is not totally without printed materials.

**Environmental print:** Printed information randomly observed in the environment, such as brand names on products, street names, notices and advertisements on television.

Literacy begins to emerge, then, as the child notices symbols and print in the environment and begins to understand that these represent meanings, words and thoughts. The emergence of literacy is constructive and non-linear, and it rarely develops systematically.

Children's growing literacy is one reflection of the continuous, communicative process of their exposure and uniquely personal response to particular experiences. This process involves their inborn cognitive-*cum*-linguistic **abilities**; a virtual stream of perceptual, conceptual and linguistic **information** that they encounter, and communicative **skills** of

**Illiteracy:** The inability to demonstrate print-related facets of communicative competence – generally associated with not having received formal education and, consequently, inability to read and write.

various kinds and levels that they acquire. Moreover, each communication is underpinned by their **emotions** (discussed in Chapter 3), which may be related to any number of facets of their experience of the specific situation. These facets might include the content and/or context of the interaction, the level of complexity of the communication *per se,* and their perception of their own communicative abilities and skills, or lack thereof.

The concept of emergent literacy reflects the view of language acquisition as an ongoing integration and synthesis of the various components of linguistic communication indicated above. It steers away from the earlier, atomistic views of learning to read and write, which subscribed to the concepts of reading readiness and writing readiness, and favoured the systematic and graded teaching of one item or skill at a time. It is presently thought that specific experiences of language have a more powerful effect on the emergence of literacy than time spent on discrete perceptual and motor tasks. Also, in curriculum design, the concept of emergent literacy is generally opposed to an undue emphasis on each of the language arts (reading, writing, speaking and listening) being taught separately.

**Perception:** Making sense of sensory information, usually with regard to identity or structure, e.g. recognising or distinguishing a letter/sound, or noting the sequence of letters/sounds.

However, we should certainly not think of the emergence of literacy as an automatic process, one which occurs through minimal, occasional or incidental interaction with print. Emergent literacy requires much carefully focused, albeit integrated, mediation (discussed in Chapter 2). Manzo and Manzo (1995) remind us of Bruner's sobering observation that incidental learning always calls for three essential elements:

1 Something to *get it started,* such as someone markedly pointing out and reading environmental print.
2 Something to *sustain it,* such as constant reminders to look for known elements of print.
3 Something to *focus it,* such as a gentle directing away from non-examples.

Once we become aware of the need for the conventions of literacy to be explicitly mediated, the eco-systemic perspective (discussed in Chapter 18) comfortably accommodates the concept of emergent literacy. Recognising that assets and barriers to learning may be functioning within any (sub)system, and at any level of the system, the eco-systemic perspective can direct our understanding of emergent literacy and the context of some of the challenges and difficulties encountered by specific learners.

Children develop their communicative skills by interacting with others in a language-rich environment, primarily in their mother tongue, i.e. where language is used for real purposes in real-life situations. Hallet (1999) quotes numerous researchers who found that parents and the family are powerful influences on children's literacy development. The

role of the parents, family, wider community and school in providing a supportive and directive environment for youngsters' emerging literacy cannot be overestimated. The culture of literacy maintained in the home and school (covering practices of literacy, semi-literacy, illiteracy and aliteracy) and the push/pull of socio-emotional factors are some of the supportive and obstructive forces influencing the individual learner's emergent literacy in a genuine way.

**Semi-literacy:** The level of literacy which is less-than-functional – generally associated with the learner having dropped out of school or with Adult Basic Education and Training (ABET) during the early grades, or having lost much of the habit and competence of literacy on account of disuse.

**Aliteracy:** Disregard for the role and value of print in society; functioning with little or no reference to printed communications.

The role of the guide *en route* to literacy indeed extends to nurturing the mind of the young child in all respects. The child is primarily an emergent thinker, not an emergent reader and writer. Whitehurst, Falco and Lonigan et al. (1988) found that different types of questions asked during story time have a significant effect: after only one month, young children who were asked open questions (e.g. 'What is Eeyore doing?' 'How do you feel about that?') increased their vocabulary by six months in comparison with a control group who were read to for the same period of time and who were asked questions which elicited only yes/no responses. (In such research, the increase is measured in terms of the number of different words used in a defined language sample – within a given time, on a set of themes or to a specified set of questions – and this is then compared to a developmental norm.) However, Stephens (2000: 13) argues emphatically that literacy alone does not have an autonomous impact on cognitive development, and states that 'societies with high levels of mass literacy are not necessarily more advanced, and the mix of literate and oral practices in relatively less literate societies can support complex and critical intellectual thought'.

Where does this leave us in respect of **literacy education?** As your springboard, you may wish to consider the following statements, which have been adapted and extended from Sampson et al. (1995):

- The single most influential factor that contributes to the emergence of literacy is the level of language that the child brings to the activities and experiences involved.
- Literacy must truly permeate an environment for that environment to fully support the emergent literacy of its children.
- Learning situations must be designed so that each learner will be challenged to acquire the skills and knowledge necessary for performing literately.
- The development of reading and writing proficiency is not 'an assembly-line process'. Direct instruction in 'how to read and write' only, is of limited value.
- Understanding text does not necessarily result from knowing how to read words. The process requires the interaction of personal meanings and knowledge with those inherent in the text.

- Similarly, producing coherent text depends more on the interaction of personal intent, knowledge and thinking than on knowing how to spell and write specific words.

Let us now contemplate reading and writing separately, bearing in mind the context and balance between literate communication and communicative literacy.

## READING

### Circumscription

Return to the four questions on your understanding of reading and writing posed at the end of the introduction to this chapter. Rethink the answers that you gave at the time. Do you have anything to add or change before you proceed to contemplate reading?

It is hardly possible to dissect the act of authentic reading into 'components' without losing perspective on its dynamic complexity. It is also impossible to look at reading outside of the context of meaning-making and communication. Our conceptualisation of reading may therefore benefit more from an effort to circumscribe reading than to define it.

It is important to understand that reading is an act in which overlapping and mutually informative processes contribute continuously to the reader's understanding and thinking about the communication represented by the text. Burns, Roe and Ross (1992) call reading a lifeskill, and have identified nine aspects of the reading process which combine to produce the reading product: sensory, perceptual, sequential, experiential, thinking, learning, associational, affective and constructive aspects. Elements of all nine can be distinguished in both broad divisions of the act of reading (i.e. decoding and comprehension), but the first three (sensory, perceptual and sequential aspects) feature most prominently in decoding and/or recognising words, and the remaining seven (i.e. again including the sequential aspect) in reading comprehension.

**Sensory:** Not only visual and aural information – think also of the tactile and kinesthetic information processed by readers who are blind and deaf.

We should think of reading as an **integrative** mode of communication – vitally intra-active as well as interactive. It is intra-active in that the reader is constantly cross-referencing a vast amount and range of her own abilities, knowledges and skills to access the text, and make semantic sense and personal meaning of it. It is interactive in that the reader is conducting a dialogue with the text. The dialogue is an endeavour to process the sense intended by the author and, as Pike et al. (1997) explain, use this information from the printed text to construct meaning. Reading involves more and extends further than the printed page in that readers

**Intra-active:** Occurring *within* the individual/object.

**Interactive:** Occurring *between* two parties/objects.

bring their own information and experience to the text and then extend their comprehension beyond the information and perspective presented therein.

In processing running text, readers use three sources of information, namely semantic, syntactic and graphophonic information (Pike et al., 1997; Sampson et al., 1995). These information systems which are always related specifically to the language in which the text is written (which then implies that reading in a language other than the mother tongue is likely to hold additional challenges in each of the information systems).

1 **Semantic** information is pivotal. It involves the reader's knowledge of meanings in the language of the text, and his associations with relevant experiences and existing content knowledge, which together form the frame of reference to construct the personal meaning of the text.
2 **Syntactic** knowledge carries the processing of the statements, besides enabling readers to constantly monitor their reading and backtrack to clarify confusion when a word is misread.
3 **Graphophonic** information underpins the decoding process, affording the reader access to each word in the text.

**Semantic:**
Dealing with linguistic meaning.

**Syntactic:**
Concerning the rules that govern sentence construction in the language of the text.

**Graphophonic:**
The print-symbols representing the sounds of the spoken words in accordance with the orthography of the language of the text.

These information systems overlap to a degree. Proficient readers use all three flexibly, as needed, whereas less fluent readers tend to rely more heavily on one – either being at pains to recognise each word and therefore resorting overly to decoding by means of phonics, or guessing at words and textual meaning by leaning strongly on semantics and/or syntax.

The value of learning to read from running text, which enables learners to utilise the three information systems to the optimum, is obvious. When learners are presented with isolated words to recognise and/or decode, such as in word lists or on flash cards, they are in effect cast adrift from their various bases of meaning. In being required to focus only on the structural characteristics of the word (the sequence and form of letters and the sound-symbol relationship in the orthography of the language of the text), they have to do without much supportive information that can be derived from text.

**Phonics:**
Application of phoneme-grapheme (sound-symbol) relationships.

**Decoding:**
Converting the printed form (code) of words into the spoken form.

Reading running text, the reader is continuously performing acts of **closure** in using the semantic, syntactic and graphophonic information to assist her in decoding and recognising the words. Goodman (1988), who spearheaded the meaning-based, whole language approach to reading education in the 1970s, has frequently pointed out that proficient readers tend to take minimal note of the symbol-structure (representation) of words. Often they register little more per word than the first syllable or number of letters, or otherwise the structural frame

**Closure:**
Completion of words not fully recognised, by adding the missing element(s) on the grounds of perceptual knowledge (most importantly phonic awareness), syntactic knowledge, semantic knowledge and/or content knowledge (schemata).

of the initial and final consonants, and close words by adding the ending or filling in the vowel to form words appropriate to the semantics, syntax or context of the statement.

The principle of closure certainly demonstrates the inter-relatedness of decoding and comprehension, and qualifies as a form of predictive and highly attentive reading. This skill of the 'educated guess' is especially necessary in languages with a deep orthography, such as English, where many words cannot be decoded by applying the rules of phonics. And, once more, learning to read text in a language other than the mother tongue is particularly challenging because of a limited vocabulary with which to close words (Birch, 2002).

**Fluency** in reading is sometimes misconstrued as referring solely to an adequately high and fluid reading speed (by means of facile decoding and accurate word recognition). This misconception overlooks the role played by a comfortable process of meaning-making in fluent reading. Associating fluency with reading speed tends to overemphasise the importance of reading aloud with correct pronunciation, directing attention one-sidedly to decoding and word recognition. Some professionals consequently fall into the erroneous trap of thinking in terms of reading ages. However, it is virtually impossible to track the course of development of such highly communicative behaviour by means of measurable, quantified, prescribed norms which disregard the relevance of meaning-making.

**Top-down approach:** Emphasising the prime importance of making meaning – dealing with the larger units of context and understanding before addressing reading at sentence level, then focusing on words and lastly on individual letters.

By now you should understand that decoding/word recognition and comprehension function reciprocally, each underpinning the other all the time. Let us proceed to contemplate the two components, bearing in mind their inter-relatedness.

## Decoding and word recognition

**Bottom-up approach:** Beginning with the smallest units of language, building up from individual letters to whole words, sentences and so on to finally arrive at meaning.

The phonetic decoding of print symbols into the spoken form of words is a so-called **'bottom-up' process** (as contrasted with the **'top-down' process** of reading, which is meaning-based and holistic). Generally thought of as the 'sounding out of words', decoding depends on **phonological awareness** and is performed when print-symbols are translated into sounds and the sounds are blended into words. Decoding is a complex process, entailing various memory, attention and perceptual skills, both visual and auditory (Marsh & Hallet, 1999; Vacca et al., 2000; Everatt, 2002; Hatcher & Snowling, 2002; McEwan, 2002; Robertson & Bakker, 2002; Singleton, 2002). This is again being mindful of the tactile and kinesthetic modes used in addition by learners who are blind and deaf (on account of the sensory barriers they encounter, the reading process of these learners is more strongly analytical and sequential). Shanker and Eckwall (1998) point out that learning to decode, according

**Phonological awareness:** The ability to reflect on the sound structure of spoken words (Snowling, 1996).

to research findings, is more highly related to phonological awareness than to other well-known measures such as alphabet knowledge, intelligence and reading readiness.

Fortunately, phonological awareness can be taught. But Manzo and Manzo (1995) report that research has shown the following with regard to phonics instruction and the development of reading proficiency:

- Phonics instruction is necessary but not sufficient to learning to read.
- Developing a 'phonetic sense' may be more important than learning phonetic rules.
- Readers use a variety of cue systems in addition to phonics.
- Readers have varying personal learning strategies (and most poor readers have a 'strategy imbalance', tending to rely excessively on one tactic to the exclusion of others).
- Frequent exposure to words is a key factor.
- Writing and spelling complement reading, from which it may be concluded that reading programmes could be improved by including writing and spelling instruction.

The decoding operation is strongly influenced by the degree of regular sound-symbol relationship in the **orthography** of the language of the text. Decoding therefore obviously becomes more challenging in a deep orthography. Words that cannot be decoded because of irregularities in their sound-symbol relationship need to be memorised for instant visual recognition. Such words are called 'sight words' and the 100–500 most frequently used ones in English are contained in various so-called 'Sight Vocabulary Lists'.

**Orthography:** The mode or system of spelling in a particular language. Languages with a regular sound-symbol relationship (such as Afrikaans and the indigenous languages in South Africa) are said to have a *shallow* or *surface* orthography, whereas orthographies with numerous apparently unpredictable sound-symbol relationships (such as English) are described as *deep*.

Orthographic differences between languages complicate the task of decoding for learners who have learned to read in their mother tongue and are then required to read in an additional language (Birch, 2002). They are likely to encounter some sounds which do not occur in their mother tongue, and some symbols will be found to represent different sounds. But, more profoundly, South African learners switching to English will be confronted by the more strongly visual, holistic processing of printed text required by irregular words in a deep orthography in comparison with the predominantly auditory, analytical (sequential) processing in a surface orthography where decoding is readily achieved (Bouwer & Güldenpfennig, 1999). However, this challenge needs to be addressed – it is not at all being suggested that learners should begin their schooling in any language other than the mother tongue. The conceptual base and experiences accessible to young learners in their mother tongue are crucial to their full language-*cum*-cognitive development during the lower grades.

The development of competence in decoding and word recognition is a significant building block in reading education and certainly an important means of access to words also in meaning-based reading. But learners' understanding of the communicative nature and function of reading can be compromised if decoding and word recognition are taught with regard to single words (e.g. a set of words representing a particular combination of symbols, or selected at random from a sight vocabulary list) rather than running text. It is equally detrimental if reading aloud 'fluently' and 'correctly' is overemphasised at the expense of accurate comprehension of the text.

### Comprehension

Communication by means of printed text depends on comprehension. Indeed, comprehension is so integral to reading that Pike et al. (1997) believe reading and comprehension to be synonymous. Manzo and Manzo (1995) regard the act of silently reading and comprehending a single page of print as one of the most highly integrated functions that we as humans perform.

The communication of thoughts and emotions between the writer and the reader results from the reader's construction of meaning through integrating his prior knowledge with the information presented in the text. In this regard, Manzo and Manzo (1995) draw a valuable distinction between **reconstructive** reading (understanding the author's intended meaning) and **constructive** reading (personalising and building on the author's message). They (1995) declare the ultimate to be **transformation**, i.e. being changed by what we read. The higher order thinking that underpins reading with constructive, transformational comprehension has the following attributes:

- It is dispositional (driven by orientation and will, not only by ability).
- It is mediational, enabling the reader by inner speech to construct personal meaning.
- It is metacognitive and strategic in constantly monitoring understanding and knowledge, and developing most effective thinking and study strategies.
- It implies effective memory, and the acquisition and application of a rich fund of information.
- It articulates with the related language arts, especially the formulation of our own thoughts in writing (Manzo & Manzo, 1995).

**Strategic reading** demonstrates skilled reading comprehension. As purposeful reading, strategic reading reflects our ability to maintain a grasp on the primary ideas or gist of the particular text (Human, Bouwer

& Ribbens, 2001). We read strategically when we adapt flexibly to different formats of printed text, or read differently for different purposes, e.g. newspapers, books, examination questions, forms to fill in. Winograd, Wixson and Lipson (1989: 8) observe that 'good readers are strategic in their attempts to get involved with print; many poor readers are strategic in their attempts to avoid reading'.

The effects of comprehension and **vocabulary** are reciprocal in that they limit and extend the opportunities for further development in both directions: the richer the vocabulary, the more accessible texts become and the more nuanced the personal meanings to construct. Words that we do not know can blur and distort our understanding, but – as in spoken language – we acquire many new words quite naturally in reading when exposed to them repeatedly within the meaningful context of printed text. This then underscores the value of recreational reading, *inter alia* to increase the rate of exposure to those words and forms of expression that occur less frequently in spoken language but contribute significantly to conceptual development.

**Vocabulary:** The sum or aggregate of words in a language known and used by a person.

**Recreational reading:** Reading during our leisure time by personal choice and motivation.

When reading in a second language, our comprehension is often obstructed by unfamiliar words. The solution is not to learn a list of meanings of words separately before 'tackling the text', but rather being provided with a glossary or dictionary to consult regarding the relevant words *while* reading. In this way, we follow a model of focused but natural, context-based exposure to the second language.

## Development of reading maturity

Having contemplated the nature of the act of reading and its chief components in the sections above, spend a moment thinking about your own reading. Review the route and experiences by which you have arrived at your present level of proficiency. Which would you commend, and which might have contributed to challenges and difficulties in your development?

Manzo and Manzo (1995) provide this thought provoking idea: promoting learners' progress toward **reading maturity** (by teaching them to be fully literate) rather than merely toward reading competence (by teaching them purely to read). We could think of the phases of development involved in achieving reading maturity as emergent literacy, learning to read, and achieving independent reading proficiency with regard to texts at various levels of complexity. The phases are not age-specific and each is integrated continuously with development also in speaking, listening, thinking and writing behaviours.

Working through this section, try to reflect constantly on the implications of the discussion for facilitation/mediation/instruction/support during each phase of striving for reading maturity.

In thinking about how a person reaches reading maturity, we must be aware of the shift in perspective on literacy education, away from teaching discrete skills in an exclusively bottom-up approach, that has become increasingly evident since the 1980s. But the change in perspective to a top-down approach has not resulted in a uniform view of literacy development: we need to distinguish further between the holistic approach, which may largely ignore or disregard practising specific skills in reading, and integrated (interactive) approaches, which recognise and address the reality of such skills.

Merchant (1999) reminds us that success in early reading was thought to build on so-called **'reading readiness'**. Reading readiness was regarded as mastery of a set of discrete sensorimotor and perceptual skills (such as visual and auditory discrimination, memory, analysis and synthesis), which were viewed as prerequisites for the successful learning of decoding skills. At the extreme left of the continuum of bottom-up–top-down approaches, it was actually assumed that teachers prepare children for reading by having them hop and skip, distinguish colours and shapes, and identify environmental sounds.

In programmes that endorse the bottom-up approach, learners are expected to decode letters and words before they can obtain meaning from print. Much attention is devoted to the development of phonic awareness. Direct instruction and basal readers feature prominently, together with continuous assessment and follow-up 'reteaching'. Meaningfully processing the full content is regarded as secondary to word decoding and word recognition, thus tending to leave comprehension somewhat to chance.

**Basal readers:** A series of books of increasing difficulty which cover a particular range of skills and follow a particular sequence (the order in which the skills are introduced, taught and tested).

Yet we cannot afford to summarily dismiss the bottom-up approach, and adhere indiscriminately to the top-down perspective. Manzo and Manzo (1995) point out that reading programmes that are expressly orientated toward bottom-up processing have tended to produce greater decoding gains in the first three grades. Moreover, fewer learners have required serious learning support than in some programmes based on top-down models. We should also seriously consider the observation by Manzo and Manzo (1995) that direct instructional models have proved more effective than models of incidental learning for learners at all levels, particularly poor and minority children. The top-down approach to reading development clearly contains some limitations too.

Pike et al. (1997) explain that the top-down approach is based on the premise that reading, as primarily a process of meaning-making, cannot occur outside of the reader's background knowledge. It follows that educators subscribing exclusively to this approach regard the learner's frame of knowledge as the springboard for her engagement with text and

that they strongly encourage the development of a personal response to textual content. In favouring trade books and immersion in a literate environment, such educators make little use, if any, of standard materials. They provide less formal or direct instruction, often relying on incidental learning for their learners' development of the skills of decoding and word recognition. Continuous assessment tends to take the form of discussion with some reference to the text, and reteaching might then well be directed at checking the text for facts and developing the skills of inference and argument.

How, then, should the development of decoding and word recognition skills be addressed effectively, while yet devoting primary attention to the learner's authentic, rich communication with text? Some synthesis or, at least, balance, evidently needs to be achieved between the bottom-up and top-down approaches to reading education. An **interactive model** may be the solution. According to Pike et al. (1997), interactive models of reading education are based on the assumption that readers are constantly utilising information from all of the three information systems (semantic, syntactic and graphophonic), and that their existing knowledge and the printed text thus constantly inform each other. Manzo and Manzo (1995) hold that interactive models are more like top-down models than bottom-up ones, but are still considered to be a synthesis of the two. Interactive models differ from top-down models in that they acknowledge the importance of attending explicitly to the skills of decoding and word recognition. To this end, some use may be made of basal reading materials, in addition to looking at the orthographic principles wherever relevant examples appear in the trade texts.

The reconstructive/constructive model proposed by Manzo and Manzo (1995) is arguably the best example of an interactive approach to reading education. This model supports the need to teach both word attack skills and higher order thinking skills to engage in the constructive reflection that leads the reader beyond the author's intended message. The two-phase process can take place in both sequences: bottom-up (decoding → accessing literal meaning → evaluation and personal responses) and top-down (prediction/reaction → verifying/altering position in looking at literal meaning and actual wording).

Proponents of interactive models have become increasingly interested in the reader's personal strategies of monitoring and fixing reading difficulties as these occur. Such strategies are often found to be unique to an individual since they are derived from assorted cognitive strengths with regard to the reader's processing of meaning and print. The sense of assessing the level of learners' reading maturity **qualitatively** and **holistically**, especially when difficulties become apparent, is surely obvious.

A process description has far greater value than quantitative results. We will now briefly discuss the kinds of problems to look out for.

## Reading difficulties

Try to remember any difficulties that you or a classmate may have experienced during your development as a reader. Would you be able to explain any of those difficulties in the light of anything that you have so far read in this chapter? More importantly: Was the chief impact of the difficulties cognitive by nature at the time, or emotional? What did you think, and how did you feel, when you were required to read aloud from your desk and your errors were heard by the teacher and all your classmates? What did you think, and how did you feel, when expected to answer inferential questions and the text seemed to you little more than a string of words?

Learners can encounter an extensive range of difficulties in any phase and with regard to any aspect of the development of reading maturity. The difficulties can be related to intrinsic or extrinsic barriers to learning to read, or to both. Some of the extrinsic barriers, especially those that are language-specific, have been mentioned in the sections above.

**Factors** generally related to difficulties in reading, and which need to be considered when we deal with a learner who is struggling, include the following:

- An inadequate base/process of exposure to environmental print during the period of emergent literacy that affects learners' development of word recognition and decoding skills as well as their experience of the communicative and constructive power of print, and tends to translate into superficial and literal reading comprehension.
- An inadequate culture of literacy and/or learning in the home (frequently associated with a socio-economically disadvantaged environment) that inhibits the learner's motivation and encouragement for knowledge acquisition, as well as his overall communicative development.
- Emotional factors, such as stress-related misreading of test questions, and acute embarrassment and fear of failure when reading aloud.
- Life experiences that are limited or different from those of the classmates, tending to hamper interpretive reading of selected texts at the levels of reconstruction as well as construction.
- Sensory factors, including problems such as a temporary hearing impairment and ear infections suffered from infancy throughout the preschool period.
- Perceptual difficulties (on account of both neuropsychological factors and gaps in learning and development), such as poor phonic awareness or poor visual recognition and memory skills, which impact on the development of decoding and word recognition skills.

**Neuropsychological factors:** Dysfunctions of the central nervous system, impacting on motor and sensorimotor integration as well as lower order cognitive skills (e.g. perception, attention, memory).

- Limited cognitive potential, which impedes comprehension and knowledge acquisition, although sometimes allows fair development of decoding and word recognition skills.
- Language factors, such as a limited exposure to the mother tongue, or reading in an additional language, which influence the learner's communicative processing of print in both semantic and syntactic respects while frequently leaving her own culture-specific knowledges untapped.
- Education factors, including those related to limited resources in the school, the lack of expertise and commitment of some teachers, the model of reading education adhered to, and the form and frequency of practice and exposure to reading.

Given the vast list of factors that could need addressing when a learner demonstrates a reading difficulty, we should pay heed to Manzo and Manzo's (1995: 345) observation: 'Any method is potentially a special method when it is applied in response to an unattended need. Special does not need to mean exotic – though it can be; nor does it have to be specialised – which it also can be. However, it must always be thoughtful and provisional: if it doesn't work, change it, and if you find a match, light it!'

To help us understand a learner's reading difficulty, a **reading assessment** needs to yield a rich description of both the process and the product of his reading behaviours, with due recognition of the factors in the home and school environment that support as well as impede reading development. This is obviously not possible when a quantitative measure is used alone. We need to look from various angles at what the learner does when reading. Useful procedures include an error analysis; a comparison between reading words and reading running text, and between reading aloud and reading silently; total recall of a passage; comprehension questions directed at both the reconstruction and construction of knowledge; executing instructions; and the setting of questions by the learner himself.

Clay (1991) found the following range of choices available to competent readers when they are faced with word decoding difficulties (these strengths then offer some indication as to useful learning support strategies to consider). Readers can:

- ask someone who might know how to say the word
- make a guess, supported by the text (i.e. meaning-based), and be correct
- make an erroneous guess, detect it and correct it – a self-correcting, meaning-based tutorial
- select slow processing to facilitate the grasp of necessary information
- direct their full attention to selected features

- choose partial sampling of sufficient cues to solve the problem
- derive unknown words by analogy with known words
- partially sound the word and then perform meaning-based closure
- sound the word in parts and link these to known words
- sound the word and be unable to link it to any existing knowledge.

One classification of difficulties can be made in accordance with the components approach (attributed to Aaron by Reid, 1998), when we plot a learner's strengths and weaknesses in aspects of reading performance on a grid. The grid represents comprehension as a continuum along one axis, and decoding and word recognition along the other, as shown in Figure 6.1.

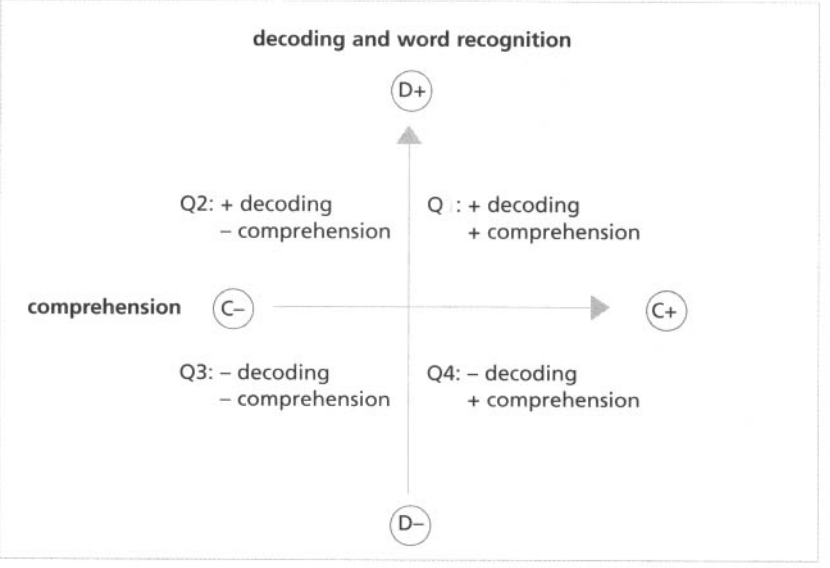


Figure 6.1 Classification of reading difficulties in terms of performance in decoding and word recognition X comprehension

However, the plotting of only a single, quantified indication of a learner's achievement in the two components of reading onto one quadrant of Figure 6.1 constitutes a static representation that signifies a deficit model, tempts the professional to label the learner, and can yield virtually no understanding of the specific difficulties experienced by the learner. Our concept of the act of reading should direct our assessment and contextualise our findings more fully, always giving some indication of the course to take in learning support.

Further developing the principle applied in Figure 6.1, it may be helpful to describe details of the learner's strengths and weaknesses

concerning the process and the products of reading in the relevant quadrant. If we then complement this information with our observations regarding factors in her situation (assets and barriers) that are possibly related to her reading performance, we may achieve some understanding of how she functions as a developing reader. Figure 6.2 (overleaf), provides an example of the performance of a learner, Pule, that has been plotted chiefly in the second quadrant. Pule attended a township school in Grade 1 and 2 where he learned to read in his mother tongue. He has been attending an English-medium school since the start of Grade 3. He is skilled at decoding, but he experiences difficulties in comprehension that are perhaps related to his situation, requiring him to use an additional language as his language of learning and teaching.

The reading difficulties of some learners are strongly related to neuro-developmental factors (Knight & Hynd, 2002). Learners with **dyslexia**, a specific learning difficulty, frequently pass unnoticed and unattended in the mainstream classroom on account of apparently normal cognitive potential and relatively successful participation in verbal activities. Frith (2002) convincingly argues for a three-level description of contributing factors – looking at aspects of a biological (neuro-developmental), cognitive (processing) and behavioural (product) nature – and recognises that these interact with cultural (environmental) influences.

Dyslexic learners generally have phonological processing deficits (Snowling, 1996; Turner, 1997) that contribute to difficulties with decoding and word recognition, and they thereby tend to stumble over and/or 'lose' words from printed text. In fact, the text frequently becomes fragmented to the extent that the meaning of a sentence or even an entire passage disintegrates (Bouwer & Jordaan, 2002). Although these learners' comprehension is typically better than their word recognition (Turner, 1997), some of them tend to process what they read only superficially, rereading sections of the text repeatedly for better understanding. They may also experience difficulty integrating old and new information.

The learning difficulties of learners who are dyslexic can be intensified by inappropriate reading education strategies, especially those that focus exclusively on the bottom-up process of decoding and word recognition. An overly strong process orientation to reading may prove unproductive with regard to these learners, since it teaches to their weaknesses instead of to their intact abilities and endorses word-by-word reading at the expense of whole-text reading (Bouwer & Jordaan, 2002).

However, learners who are dyslexic do not seem to automatically apply active learning strategies, such as metacognition and the questioning/ prediction of events (Burke, 1997; Bouwer & Jordaan, 2002).

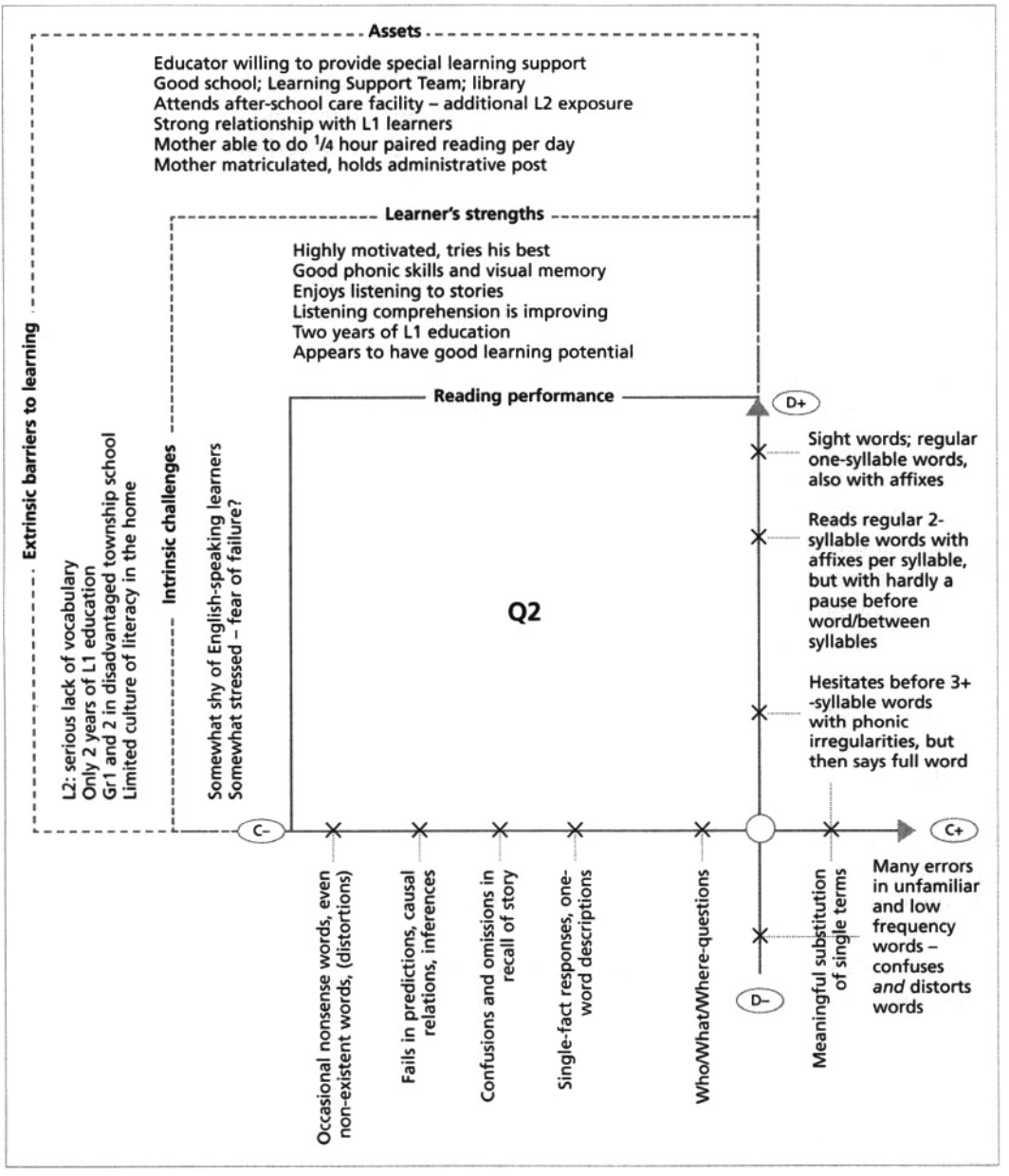


Figure 6.2 Assessment of reading (example: learner in Grade 3, 3rd term)

They tend to display a lack of engagement with text and make little effort to solve the puzzles that are generated by their virtually endless misreadings (Brand-Gruwel, Aarnoutse & Van den Bos, 1998; Shanker & Ekwall, 1998). Consequently, learning support should include a distinctly

holistic and meaning-based component that focuses on the enhancement of thinking skills.

In developing our concept of literacy, we considered the fact that reading and writing are *inter-related* and that the processes could best be learned in connection with each other rather than in isolation. Manzo and Manzo (1995) draw attention to the fact that the demand for a writing component to any reading programme has become an established part of the literature of the field. Quoting studies that show that better writers frequently are better readers and read more than do poor writers, Pike et al. (1997) remark that the good readers who are poor writers and good writers who are poor readers could very well be products of a fragmented language arts programme.

Let us now look at the nature, development and difficulties of writing behaviour. While working through the sections below, make an effort not to think of writing superficially as the 'flipside' of reading. Discover the unique differences. Also, try to be sensitive to their facets of interactive and integrative processing.

## WRITING

### Circumscription

When challenged to reflect on your own writing, what do you think about first – how well/poorly you express yourself, how successfully/unsuccessfully you organise your thoughts, how well/poorly you spell, or what your handwriting looks like?

As in reading, two chief components are involved in writing, although somewhat more distinctly so. The components are meaningful communication (composition), and encoding (transcription). When we think of writing (and certainly when we assess text produced by a learner), we can easily focus one-sidedly either on the expressive, creative composition of thoughts in written form, or on the mechanics of transcription.

**Composition** concerns more than writing; it is primarily about thinking and represents the essence of the writer's communicative powers of construction and tone. Browne (1999) explains that composition involves making decisions about the content of writing (in generating and selecting the ideas that will be used) and comments that teachers should guide children to understand that writers consider and plan what they write and can change and delete that material. Manzo and Manzo (1995) believe that writing supports cognitive and metacognitive development, because composition forces levels of introspection, analysis and synthesis deeper than any other mediational process. In addition, Stephens (2000) observes that the 'shaping' of written texts entails metalinguistic awareness that can impact even on the use of spoken language.

**Transcription** is the process of converting what is being composed (i.e. the flowing, fragmentary, inner language forms of thought) onto the page. To Browne (1999), this includes spelling, handwriting, punctuation, grammar and layout, and it can be difficult for young writers to master. In this chapter, we can look only at spelling and handwriting.

### Writing as expression and composition

Since writing is communicative by nature, written text has both an author and an **audience**. Contemplating the perspective of the author, Browne (1999: 93) aptly describes the composition of text as 'the intention to mean', and recommends that children should experience a wide range of audiences in order to learn how to write in different ways and suit their writing to the situation and the reader. Manzo and Manzo (1995) observe that our response to learners' writing helps them to develop a sense of the uniqueness of their identity and the special quality of their work. Manzo and Manzo (1995: 341) point out the inspirational value of remarks such as: 'When you write something, it will be different from anyone else's anywhere in the world. Let me see what you have written'.

Writing in a language other than the mother tongue surely impacts on the learner's expression of ideas in many ways. Limited vocabulary and poor control of linguistic structures may become so constraining that it is virtually impossible for the learner to make meaning beyond the simplest and most literal of statements. To writers in an additional language, the illusion of audience and a purpose for writing are frequently lost.

### Spelling

Spelling is generally perceived to be more difficult to master than decoding and word recognition in reading, since it requires the production of an exact sequence of letters, appears to contain limited linguistic clues and calls for constant phoneme-to-grapheme decisions. Differences between the orthographies of the mother tongue and an additional language of learning complicate the task significantly. These factors could perhaps partly explain why many learners and teachers approach the mastery of spelling skills chiefly as a memory task.

The act of executing the letters correctly and legibly, which requires a high level of sensorimotor integration, is an additional challenge.

### Development of writing maturity

When we recognise that spoken communication and thinking are an integral part of the act of writing, we can expand Manzo and Manzo's (1995) perception that full literacy implies **reading maturity** to include **writing maturity**. From the springboard of emergent literacy we would

then also expand the subsequent phases to learning to read-and-write, and achieving independent proficiency in reading-and-writing.

In this section, we will distinguish the development of communicative writing, spelling and handwriting (producing print), but we must remember that these happen in interaction with the development of reading comprehension, and decoding and word recognition.

*Development of written composition*

As with reading, there has been a shift away from the development of motor skills and spelling through pre-writing activities such as tracing and copying handwriting patterns and words. The earlier emphasis on correct letter formation and spelling often neglected to widen children's understanding of the uses of writing and thus dampened their enthusiasm for writing. Browne (1999) reminds us that it is now accepted that even young children know a great deal about writing and that they can and do produce unaided writing that demonstrates their understanding of the system and the function of writing.

Bean and Bouffler (1997) advise that opportunities to experiment with and see demonstrations of writing should be created daily, and Browne (1999) suggests that the developmental course runs through expressive writing to transactional writing, and culminates in poetic/literary writing. Manzo and Manzo (1995), however, view the school's primary mission to be education of the mind by teaching and promoting clarity and purposeful thought, rather than reaching for some level of art.

Strategies for the development of writing maturity include reading. Bean and Bouffler (1997) propose that the more students learn about text through reading, the more they will learn about creating text. Shared writing is another way of mediating writing. According to Browne's (1999) description of the process, the educator records what the learners compose, writing in large script so that they can see how words are written down, arranged on the page-form and spelled. The educator negotiates the learners' suggestions and draws attention to how the text has to be suited to the function and audience. Finally, compiling a personal book that will be read many times by others and by the child provides many lessons about writing – authorship, audience, functions of writing, composition, transcription, and the need to think about and discuss a matter (Browne, 1999).

Manzo and Manzo (1995) have identified five stages in the writing process that could usefully constitute a 'master plan' for teaching writing:

1 **Prewriting ('getting it out'):** This deals with motivation and interest, selecting a topic, calling up relevant knowledge and experiences, and identifying an audience.

2 **Drafting ('getting it down'):** This is the student's attempt to channel her ideas, purposes, facts and personal feelings into words and structure.
3 **Revising ('getting it organised'):** This entails evaluation and introspection, and a willingness on the student's part to critique herself and redraft the text.
4 **Editing ('getting it right'):** This is a review for correctness of the transcription with regard to aspects such as spelling, grammatical usage and punctuation.
5 **Publishing ('going public'):** This occurs when the writing is read by others as reinforcement for future writing.

For bilingual children, Dodwell (1999) cautions that the links of writing with oracy and reading need to be carefully planned. Writing activities based on familiar texts or writing which introduces particular patterns of familiar language are important. In later stages of development, key words and topic words need explicit introduction and practice in meaningful contexts.

*Development of spelling*

The phases of spelling development are described slightly differently by various authors; this seems mainly influenced by differing emphases on the written (visual-motor) and cognitive components of spelling. Nevertheless, roughly five stages are distinguished (Manzo & Manzo, 1995; Bean & Bouffler, 1997; Browne, 1999):

1 scribbling
2 drawing
3 non-phonetic lettering
4 phonetic (often invented) spelling
5 conventional (standard) spelling.

Bean and Bouffler (1997) observe that some teachers and parents are reluctant to allow invented spellings because they believe it encourages the use of non-standard forms. Bean and Bouffler (1997) argue, however, that invented spelling belongs within the framework of language learning and that children are more likely to become standard spellers if they have the opportunity to write for real purposes, and if they are indeed encouraged to explore possible spellings for themselves.

For young children, spelling is chiefly a **phonologically-based process.** The children base their spellings on the sequence of sounds which they perceive in the words and represent each phoneme by a grapheme. However, their knowledge of letter names can cause them to spell a set of

phonemes with the single letter having this name (e.g. bgin) instead of on a phoneme-by-phoneme basis. Treiman and Tincoff (1997) consequently advise educators to emphasise **letter-*sounds*** more than letter-names in teaching spelling. Eliciting spellings in written form, never verbally, also supports the functional use of letter sounds instead of letter names (Bouwer, 2000).

Bean and Bouffler (1997) comment that spelling is learned at the interface between reading and writing. They have observed that most children begin to show concern for standard spelling somewhere towards the end of the first year of school, and surmise that this is because by then they are achieving a degree of independence in reading that can consciously be used to assist their writing. Leong (1998) established that, for 9- to 12-year-old children, reading and spelling probably develop concurrently and quotes various studies to support this finding. Dougherty and Clayton (1998) believe that print exposure plays an important role in the development of orthographic representations, since the speller is able to use reading experiences to check and confirm specific word information.

The role of **memory** in spelling increases with age and should be recognised, but not overemphasised. Leong (1998) holds the view that two main strategies, a rule-based and a lexical strategy, are used. The rule-based strategy entails the mapping of phonemes onto graphemes. The rules are 'probabilistic' and provide an effective means to spell regular and novel words, minimising the load on memory. The lexical strategy emphasises orthographic knowledge and word-specific memory, and is considered important for irregular or exception words. Lennox and Siegel (1998) qualify this view, stating that the ability to integrate phonological and orthographic skills requires **metacognitive** skills. In this regard, it is important to note that rote procedures are indeed not the most effective in the development of spelling proficiency. After reviewing 38 spelling studies, Fulk and Stormont-Spurgin (1995) conclude that spelling should be integrated in a meaningful language arts programme, rather than being addressed as a list-learning task.

Learning to spell through non-deliberate exposure to print admittedly occurs fairly slowly and does not at first generalise to new words (Treiman, 1998). However, self-directed learning, in which the learner deliberately examines his spelling in running text and relates it metacognitively to his own word knowledge, would expectedly achieve positive outcomes. Learners should be encouraged to access and combine all aspects of their word knowledge to identify relevant spelling principles of words in a meaning-based examination of print (Bouwer, 2000).

### Writing and spelling difficulties

Writing can be difficult. Moats (1995) draws attention to the intrinsic challenges of certain aspects of written language and the fact that these are learned fairly slowly (even by learners without disabilities), concluding that a certain amount of error is generally to be expected. Manzo and Manzo (1995) remind us that all writing is something of an experiment – one of the greatest fears of many writers is having little, if anything, to say. In addition, we must face the daunting metacognitive tasks of how to formulate each idea accurately and how to structure the line of argument or event – in other words, how to communicate effectively with various audiences and for various purposes. All of the above is complicated for the majority of South African learners as they face the demands of communicating educationally in a language other than their mother tongue.

Try to distinguish between the challenges and difficulties that you encountered during your development as a writer, and perhaps reassess your level of writing maturity more positively!

As with reading, learners can encounter an extensive range of difficulties in any phase and with regard to any aspect of the development of writing maturity, and the difficulties can be related to intrinsic or extrinsic barriers to learning to write, or to both. Factors generally related to difficulties in writing by and large complement those for reading and include the following:

- An inadequate base/process of exposure to environmental print during the period of emergent literacy that affects learners' experience of the communicative and constructive nature of print.
- An inadequate culture of literacy and/or learning in the home (frequently associated with a socio-economically disadvantaged environment) that inhibits the child's motivation and encouragement for overall communicative development.
- Emotional factors, such as a stress-related inability to generate and communicate knowledge and experiences lucidly in print, and embarrassment and fear of being evaluated for the written product.
- Life experiences that are limited or different from those of the classmates, tending to hamper expressive writing at the levels of reconstruction as well as construction.
- Sensory factors, including problems such as a temporary hearing impairment and ear infections suffered as a baby.
- Visual-motor and perceptual difficulties (on account of both neuropsychological factors and gaps in learning and development), such as poor phonic awareness or poor memory skills, which impact on the development of letter formation and spelling skills.

- Limited cognitive potential, which impedes knowledge construction, although sometimes allows for fair development of handwriting and spelling skills.
- Language factors, such as a limited exposure to the mother tongue, or writing in an additional language, which influence the learner's communicative processing of print in both semantic and syntactic respects while frequently leaving her own culture-specific knowledges untapped.
- Education factors, including those related to limited resources in the school, the lack of expertise and commitment of some teachers, the model of writing education adhered to, and the form and frequency of practice and exposure to writing.

In assessing a learner's growth as a writer, Wolf and Gearhart (1997) suggest posing these questions: Where has the child been?, Where is she now? and Where can I advise her to go next? – but in the process they urge us to honour the learner's efforts to make meaning and validate language variety. This implies that learners using an additional language as the language of learning and teaching should be accommodated instead of simply being expected to produce the same standard of writing as mother tongue speakers.

The assessment of spelling is more visible. Thinking of the myriad red marks that many teachers tend to make on the written pages submitted by a poor speller, calls the well-known image of the battlefield to mind – and there is no doubt as to the pain suffered! Not surprisingly, Moseley (1989) found that 13- to 15-year-olds with spelling difficulties compensate for their problem by using more short and regularly spelled words and fewer words outside a core vocabulary of 500, avoiding hard-to-spell words and overly repeating words and phrases with which they feel comfortable. Obviously, this tendency of spelling anxiety to depress written performance perpetuates the problem by causing a significant loss of spelling practice and experience.

An error analysis that distinguishes only **types** of error (e.g. misspelling the -ed in regular past tense, or the -le of word endings) and ignores repetitions and extra misspellings of words often generates the pleasant surprise of few real difficulties. These can then be more positively focused on for correction.

Spelling difficulties range from inconsistencies and lapses with regard to specific spelling principles or rules (the knowledge base) to more serious confusion around sound-letter correspondence and letter sequence, and to a high frequency of errors on account of 'slips of the pen' owing to slipping attention (the process-base). The probability of spelling errors is obviously increased for learners in an additional language.

Moreover, learners with visual-motor integration problems are in danger of scoring lower for spelling on account of letter formation errors which are interpreted as spelling errors (e.g. b/d and other reversals; b/l/f/k and u/v/w in cursive script; spacing). The number of learners with handwriting difficulties has been estimated to be as high as 10–15% of the school population (Alston, in Montgomery, 1997).

The errors of dyslexics appear to be no different from those of normal spellers of a younger age (Moats, 1995; Montgomery, 1997), but unfortunately this does not mean that the difficulty will in time be resolved. Typically, learning support for dyslexics is more successful with regard to their reading, and their ability to write an organised composition, than their spelling.

In South African schools, strong influences on the acquisition of spelling skills presently include the culture of literacy at home and at school, and the educator's language proficiency, didactic expertise and model of spelling instruction. Du Toit and Dreyer (1998) found that specific spelling errors of learners in Grade 3 are linked to particular deficiencies in the teaching of spelling and the learners' linguistic knowledge.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 What happens when communication experiences are fragmented?
2 How may life experiences impact on literacy instruction?
3 What is the relationship between the beginnings of reading and the beginnings of writing?
4 How can the relationships among speech, writing and reading be demonstrated?
5 How are listening and literacy development related?
6 What insights into spelling do children gain through reading and writing activities in meaning-centred classrooms?
7 How would you go about combining the bottom-up and top-down approaches to reading and writing education? Devise one strategy for each.
8 How would you combine reading and writing education? Devise one strategy.
9 How can you assess the reading and writing of learners who appear to be having difficulties? Devise one strategy for each.

## VOICES

### Good readers

Ooh, reading is my best fun thing. The story takes me right away from where I am, far away to exciting, happy places and I get to know super-duper people.

To read a book makes me cleverer! I learn and think about things.

### Readers in an additional language

Reading is to pronounce the words right.

Reading is to learn what all the words mean.

### Learners who are dyslexic

Reading is to say the words from paper. ... but I'm a little stupid, I can't do that very well.

I really and truly HATE reading. It's stupid!

I make tons of mistakes with the words. The letters go all fuzzy strings. The class goes all quiet.

### Successful writers

It is to show how you think.

It's a real sweat, to build your thoughts so somebody else will understand what you are saying.

### Writers in an additional language

It's like I'm blocked, I can't say what I know. Later, I go empty, I have no ideas left.

### Learners who are dyslexic

I can't spell.

I-I-I sometimes ... say I-I didn't do the work, although I did – because I just know all the words will be wrong.

### Educators

When I was at school, I thought reading and writing was about saying and writing words correctly. It is truly empowering to understand that the central value of both is communication, and that I should go for thinking. Now, I focus on getting my learners to access and express meaning, and I bother less about first teaching the details of decoding and spelling. It has made teaching and learning more fun. But I must admit: I sometimes worry about the misreadings and the spelling errors that learners make. Perhaps I am neglecting those areas too much?

MEPAWS (see Table 6.1) has made such a difference in my class! It allows the personal learning style and strengths of my learners to surface. The desensitising effect of recognising that words only have trouble spots and are for the greater part fully regular has contributed enormously to their confidence.

Table 6.1 Metacognitive Examination of Print for Attentive Writing and Spelling (MEPAWS) (Bouwer, 2000: 189–90)

| Participants | Procedure |
|---|---|
| Learner, with/without facilitator | • Select a suitable text to use for a week, considering content (interest and lexicon), complexity, length, font type and size, and line spacing.<br>– In the early stages, plan for as little as three to four lines per session and later increase to a paragraph, or even two.<br>– Start with a new text every week.<br>• Prepare the text as required by the circumstances.<br>– Make a photocopy if the book needs protecting.<br>– Prepare a taped recording if the learner will be performing the routine on his own, e.g. in a large class, for differentiation regarding the learner's rate of work, for lack of (literate) supervision, etc. |
| Learner | Perform a silent reading of the text *for comprehension*, i.e. first pay attention to the content eventually to be written (process as communication). |
| Learner, with/ without facilitator or taped recording | • Read the text aloud to clarify pronunciation.<br>– This reading is *not for the sake of fluency,* but to establish the basis of comparison for the dictation to follow (i.e. to support pronunciation in inner speech).<br>– Poor readers could check their reading against a tape-recorded version. |
| Learner | • Identify and *underline* those *words* which are anticipated to be written incorrectly.<br>– Encourage the learner metacognitively to identify personal goals, in terms of personal strengths and weaknesses.<br>– In a group session, each learner will be marking different words. |
| Learner | • Mark the 'trouble spots': *encircle* the *letters* within the underlined words which appear troublesome.<br>– Encourage learners to identify only the specific 'trouble spot' within each word (mostly only one to a word) in order for them to be desensitised about the severity of their spelling difficulty, for their confidence to be enhanced and for the regularities within that word, as well as related words, to be enhanced or established. |
| Learner, with/ without facilitator | • Contemplate the 'trouble spots': discuss them, look up analogous words, find the reasons and/or hints for particular spellings, devise idiosyncratic mnemonics. |

| | |
|---|---|
| Learner, with/ without facilitator *(cont.)* | – Group discussions, even on personal mnemonic techniques, are helpful.<br>– Encourage learners to acquire a personal spelling notebook and enter problematic words in perceived categories. It should contain a 'puzzle page' in the back, for words with apparently inexplicable characteristics. |
| Learner | • Master the spelling of the text: utilise at will the methods which have arisen, and take any amount of time.<br>– The learner and facilitator are encouraged to experiment with new strategies, to discover those which work best for him. |
| Learner and facilitator or taped recording | • Write to dictation.<br>– Dictate the text in meaningful phrases, with no repetition unless expressly requested by the learner, to allow learners freely to utilise their inner speech as their continuous base of reference in controlled writing, and to enhance concentration in an independent, self-regulated style of work.<br>– Urge learners to exercise constant and close control over their writing and, in the very process of writing, immediately to correct whatever errors they might notice with *the pen being used to write the passage (Colour One).* |
| Learner | • Having completed the passage and *still using the same pen* (i.e. Colour One, the working colour), proofread the writing for errors without referring to the printed text, and correct these.<br>• Score all those corrections made independently (i.e. all alterations made in Colour One) and enter the total on the page *in Colour One*. |
| Learner | • *Change to a second colour* and, paying special attention to the 'trouble spots', check and correct the writing against the printed text.<br>• Score this second set of corrections and enter the total *in Colour Two*. |
| Facilitator | • *Using a third colour,* finally mark the work for any remaining, undetected errors.<br>• Score the third set of markings and enter the total *in Colour Three*. |
| Learner, with/ without facilitator | • Consider the scores.<br>• Contemplate the performance metacognitively.<br>• Enter additional problem words in the personal spelling list.<br>• Set goal(s) for the next session.<br>– Learners aim consecutively to decrease and eventually eliminate their scores in Colour Three → Two → One.<br>– Initially, they strive to raise their score in Colour One, being the desired and metacognitive way to lower the other two. |

## APPLICATION STRATEGIES

Achieving a balance between challenging, meaning-based questions and tasks to target the holistic development of learners' cognition, and supportive knowledge and skills to access and transcribe text at the word level, should be the chief focus of literacy education. You may consult a vast number of textbooks in this regard.

The following paradigmatic questions that invite critical and creative reading, writing, listening, speaking and thinking are suggested by Manzo and Manzo (1995: 327–8):

- 'How is this text like another that you have read?' This encourages learners to make connections and see analogies.
- 'Does this story/information make you aware of any problems that need attention?' This encourages youngsters to see themselves as active participants in problem identification and problem-solving.
- 'What does this mean to you, and how might it affect others?' This gives learners the right to feel and express their own best interests, and also to empathetically consider and understand the views of, and possible consequences to, others.
- 'Is there anything wrong with this solution, and how else might this problem be solved?' This is at the heart of successful critical analysis (i.e. constructive questioning).
- 'What more needs to be known, or done, to understand this better?' This invites thinking beyond what is known and written.
- 'Who thinks they can say this, or picture this differently than it is said or pictured here?' This invites a more artistic or aesthetic point of view, personal imaginings and expressions.
- 'What is the author trying to get you to believe, understand or know, and why?' This is a cornerstone of critical thinking: it helps learners to understand the fallibility, and possible biases, of even the best-intentioned authors.
- 'What is a contrary way of seeing this?' This is basic to teaching dialogical thinking.

## TEN FACTS ABOUT READING AND WRITING

1 We know that achieving the deep understanding of a learning difficulty necessary for assessment and support depends on our knowledge of the particular learning area and the challenges it presents.

2 We know that literacy encompasses all aspects of communication (speaking, listening, reading, writing and thinking) and that full literacy is demonstrated in reading and writing maturity, not merely in reading and writing competence.

3 We know that literacy practices differ from the context of one family, community and system to another.

4 We know that emergent literacy is the child's developing awareness of the inter-relatedness of oral and written language as the outcome of carefully focused, integrated mediation.
5 We know that the development of reading and writing proficiency is not a bottom-up 'assembly-line process' of discrete items, and that direct instruction only in how to read and spell has limited value.
6 We know that understanding text does not necessarily result from knowing how to read words. The process requires the interaction of personal meanings and knowledge with those inherent in running text.
7 We know that producing coherent text depends more on the interaction of personal intent, knowledge and thinking than on knowing how to spell and write specific words.
8 We know that direct teaching and some forms of drill do have value, and that balance needs to be achieved between the bottom-up and top-down approaches to reading and writing education.
9 We know that communicating in a language other than the mother tongue confronts learners with unique challenges that need to be accommodated if we are to avoid obstructing their learning.
10 We know that learners who are dyslexic have difficulties in reading and writing that are related to neuro-developmental factors and require particular learning support.

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# Acquisition of Mathematics Literacy

Drienie Naudé

## INTRODUCTION

Because not all learners acquire mathematics literacy in the same manner and at the same pace, the role of the educational psychologist with regards to the acquisition is threefold: analysing learners' learning needs within a specific educational setting and in keeping with the learners' developmental level, giving consultative advice on individualised programme development and implementation (including procedures, methods and techniques), and providing educator support, individualised learning support to specific learners, and parent guidance on matters related to the learners' educational needs.

Outcomes-based education (OBE) is now the system of education used in South African schools (Department of Education, 1997). One of its requirements is for teachers and parents to take new approaches to developing numeracy. In the planning of a mathematics programme of learning and learning support, four defining principles must be taken into account (Vandeyar & Killen, 2003):

1 **Clarity of focus:** This principle requires that mathematics teaching and assessment be clearly and explicitly based on well-defined learning outcomes in order for valid inferences to be made about learners' achievements.
2 **Designing down or back:** This principle implies that a 'building blocks' design should be followed. We can visualise the areas of mathematics as building blocks of mathematics, each brick representing a concept or a group of concepts in the mathematics continuum. Higher level bricks are built upon lower ones, contributing directly to learners' achievement of immediate learning outcomes, and progressing towards more complex learning outcomes that would eventually lead to the exit learning outcomes of the programme. When this principle is applied to the learning of mathematics, it encourages teachers to rethink and mould teaching strategies and assessment tasks to facilitate the close monitoring of learners' learning, which would inform the teachers about the readiness of learners to proceed to more complex mathematics learning. Mathematics teaching and assessment are inseparable, both continuously providing information about learners' current understanding of numeracy, their readiness to proceed to the next step, and their progress towards long-term outcomes.
3 **High expectations:** This principle is based on the idea that, given the appropriate opportunities, every learner can achieve high standards of mathematics competency, reflecting the idea that teachers' expectations, as well as their teaching practices, influence learners' achievements (Luke, Lingard & Ladwig et al., 1998). Mathematics

teaching should be challenging, not simply routine, and assessment tasks should provide scope for learners to demonstrate deep levels of understanding and high levels of achievement, essentially because this OBE principle emphasises teaching and assessment for understanding.

4 **Expanded opportunity for learning:** This principle embodies the idea that all learners can succeed if they are given adequate opportunity and time. It encourages the mathematics teacher to use 'wait time' to allow learners to think through their responses, to probe their thinking and reasoning, and to follow their lead to allow them to reveal their understanding and view of mathematics. The ultimate goal is that learners learn successfully, not that they learn in a particular way or in some fixed period of time.

In the implementation of these OBE principles, this chapter offers alternative methods of mathematics teaching, assessment and learning. Professionals have to temporarily relinquish their customary roles as psychologists, counsellors and teachers, and assume the role of learning specialist to facilitate mathematics understanding and learning. Therefore the term 'learning specialist' will be used in this chapter and is intended to include all professionals involved in the learning and teaching of mathematics.

## ACQUISITION OF MATHEMATICAL SKILLS

Mathematics is the logical study of shape, arrangement and quantity. It is also a communication tool that uses mathematical symbolism to describe quantified relationships in the universe (Ariel, 1992). Because many learners at various levels of education exhibit difficulties in the acquisition of mathematical skills and in using mathematics as a communication tool, the teaching of mathematics through creation of mathematical learning experiences (as opposed to drill) has become an area of focus amongst South African educators. The learners' mode of interaction with the mathematical learning experience, and the way in which they construct and deconstruct mathematical concepts, play a significant role in the acquisition and mastering of mathematical skills. Learners act upon and manipulate objects in the environment (concrete experience, enactive representation), then they develop mental imagery (figural, iconic) and finally they associate labels (names) with the objects (symbolic, form of language).

**Mathematical symbolism:** Symbols and words that are used to describe quantified relationships in the environment (universe). It forms the basis for the logical study of shape, arrangement and quantity, and also serves as a communication tool. Learners act upon and manipulate objects in the environment (concrete experience, enactive representation), then they develop mental imagery (figural, iconic) and finally they associate labels (names) with the objects (symbolic, form of language).

Various factors pose barriers to the acquisition of mathematical skills, such as problems of attention and concentration; poorly developed

imagery, memory and abstraction, including mental manipulation; difficulties in symbol substitutions and processing of graphic symbols; difficulties in visual-spatial relationships; difficulties in analysis, synthesis and reproduction of patterns, in seeing whole-vs-part relationships, and in visualisation. Some learners lack experience or are not developmentally ready to learn; others have particular learning needs.

Levels of exploratory learning:

- Manipulation of concrete objects and establishing imagery of concrete, figural and pictorial materials.
- Discovery of mathematical relationships by inductive and deductive reasoning.
- Development, understanding and attainment of concept, and convergent production.
- Automaticity of concept and attainment of automatic function by means of practice.
- Mastery of concept (symbolic, divergent production) (Ariel, 1992).

## LEARNERS WITH LIMITED LANGUAGE PROFICIENCY

**Mathematical vocabulary:** The 'naming' and articulating of mathematical concepts. This plays a defining role in the mastery of mathematics. It is a requisite for higher cognitive functioning and abstract thought. Limited mathematical vocabulary proficiency suggests difficulty articulating numerical problems and concrete level thinking. This might impede learners' ability to think in mathematical terms.

Limited language proficiency can pose a barrier to using mathematics effectively as communication and problem-solving tools. Statistics on learner enrolment in South Africa show that a total of 503 228 girls and 552 169 boys enrolled for Grade 1 during the 2000 academic year (Strauss, Van der Linde & Plekker, 2001). Many of these learners must overcome a variety of academic and learning difficulties that might be ascribed to their limited language proficiency (Lopez & Gopaul-McNicol, 1997).

The term **'language proficiency'** refers to the degree to which the learners exhibit control over the use of language. Many learners in South African classrooms have a dominant language for communication that differs from the language of instruction (Cummins, 2000), and some of them reveal impoverished language development (Naudé, Pretorius & Vandeyar, 2003). However, these linguistically diverse learners are expected to perform academically on par with learners from home environments in which the language of communication matches the language of instruction. When beginning to learn a language other than the mother tongue, the linguistically diverse learner makes errors in production and/or comprehension, and also can have difficulty in processing information presented in this non-proficient language. Even after developing

what appear to be adequate expressive and receptive language skills, the learner with limited language proficiency may continue to process academic information at a slower rate. Cummins (2000: 129) conceptualised two aspects of language proficiency: **'basic interpersonal communicative skills (BICS)'** and **'cognitive academic language proficiency (CALP)'.**

**Basic interpersonal communicative skills (BICS):** The language skills that are needed in daily personal and social situations (Cummins, 2000). It can be described as a type of 'surface fluency' that the learner learns when he interacts with peers and adults, and it is therefore regarded as a social language. BICS may take two to three years to develop in a language other than the mother tongue.

### Basic interpersonal communicative skills (BICS)

According to Cummins (2000), the BICS concept refers to those language skills that are needed in daily personal and social situations. It can be described as a type of 'surface fluency' that the learner learns when he interacts with peers and adults, and it is therefore regarded as a social language. BICS may take two to three years to develop in a language other than the mother tongue.

**Cognitive academic language proficiency (CALP):** Aspects of language such as vocabulary, concept knowledge, metalinguistic insights and the knowledge of how to process decontextualised academic language (Cummins, 2000). CALP is essential to transcend ordinary social language, and encompasses reasoning, problem-solving and other cognitive processes required for academic achievement. On average, learners need between five and seven years to attain CALP at a level that would support grade-level performance of academic tasks.

### Cognitive academic language proficiency (CALP)

CALP refers to aspects of language such as vocabulary, concept knowledge, metalinguistic insights and the knowledge of how to process decontextualised academic language (Cummins, 2000). The concept entails the use of the language skills that are essential to transcending ordinary social language. Because language and thinking are closely interwoven, CALP encompasses reasoning, problem-solving and other cognitive processes required for academic achievement. On average learners need between five and seven years to attain CALP at a level that would support grade-level performance of academic tasks. This is significantly more time than it takes learners to acquire conversational fluency.

Some aspects of language proficiency are notably more important for learning and mastering of mathematics than are the superficial manifestations of language proficiency frequently emphasised by learning specialists. Furthermore, failure to recognise these differences can have unfortunate consequences for linguistically diverse learners. The fact that these learners have acquired communicative proficiency does not necessarily imply an ability to handle tasks that require CALP. Competencies in expressive and receptive languages are essential for successful performance of almost every aspect of academic tasks, including mathematics. Learning specialists make serious errors when they assume that communicatively competent learners should have no difficulty in understanding mathematical concepts presented in a non-proficient language, and that after two or three years of preschool attendance linguistically diverse learners should have acquired sufficient language skills to converse in a particular language, follow simple directions and be able to function

in a monolingual academic setting (Garaway, 1994). These learners often fall progressively below grade level in basic academic tasks, including mathematics.

A linguistically diverse learner who has achieved BICS may still experience difficulty performing on par academically, because she has not developed the CALP necessary to support higher order cognitive tasks in a language other than her mother tongue. Learning specialists, particularly foundation phase teachers, are encouraged to distinguish between these two language proficiencies, acknowledging the fact that linguistically diverse learners require about five to seven years to attain CALP. Naudé et al. (2003) highlight vocabulary, ready knowledge, memory, associative ability, conceptual thinking and relational thinking skills, as well as the ability to integrate graphic (pictorial) information with verbal descriptions, as essential skills serving CALP.

**Relational thinking:** The ability to show a connection between two or more things, especially relevant in mathematics when a concept is compared to something else.

### *Vocabulary*

Expanded vocabulary proficiency is a requisite for higher cognitive functioning and abstract thought, thus vocabulary plays a defining role in the mastery of mathematics. Limited vocabulary proficiency suggests difficulty articulating numerical problems and concrete level thinking. This might impede learners' ability to think in mathematical terms. The inference is that learners with limited language proficiency might not have mastered cognition of semantic units as a prerequisite for mathematics learning because they should have an adequate vocabulary before they are capable of understanding mathematical problems. Furthermore, learners should be able to verbalise their thought processes and know the correct terminology, in order to avoid having to relearn any terminology later.

Instruction and assessment must always occur together. Thus the learning specialist needs to discuss the sums with linguistic non-proficient learners to determine what they understand, with which concepts they are familiar and which errors of reasoning or calculation they make, because they might not understand the mathematical language involved in the task at hand. Appropriate oral and concrete work should pave the way for pencil-and-paper activities.

### *Ready knowledge*

**Ready knowledge:** Encompasses general knowledge concerning facts essential for adequate functioning inside as well as outside the school. Restricted ready knowledge proficiency suggests inadequate retrieval of associations or general knowledge from the long-term memory, non-productive language ability and non-productive inductive reasoning ability. It is assumed that the knowledge that a learner acquires, retains and re-applies from experience is useful not only for present functioning, but also for further, more advanced knowledge acquisition. There seems to be a close link between acquired ready knowledge, re-application of such knowledge, and inductive reasoning, each of which are of cardinal importance for the acquisition of numeracy.

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**Conceptual thinking:** The ability to create, originate or visualise an abstract principle. Mastery of mathematics requires the ability to conceptualise relationally in terms of purely verbal stimuli (in other words, convergent production of semantic relations), which involves specific processes and functions such as associative ability, short- and long-term memory, and verbal fluency.

We can infer that impaired inductive reasoning ability might obscure the learner's view as to what it is that he has to find to solve a mathematical problem, what he needs in order to find it, whether he does have the data, and how he should use this information to arrive at the solution. During both instruction and assessment of mathematics, learning specialists should first let linguistic non-proficient learners verbalise the mathematics problem, then have them translate it into arithmetical language and, finally, execute the operation. The starting point should rather be the practical situation in which concrete material is used. The aim is the reinterpretation of information and concepts in order to enable linguistic non-proficient learners to reapply knowledge to other areas of numeracy, and to encourage them to use inductive reasoning so that they can independently discover the 'rule' required to solve the mathematics problem.

### *Memory*

**Memory:** Encompasses both short-term and long-term memory, and refers to the ability to store and reproduce meaningfully ordered verbal and non-verbal information for shorter or relatively longer periods of time. When doing mathematics, learners should be able to select relevant ideas from the memory pool, discard the irrelevant and clarify categories of information before reproducing a meaningfully ordered translation of the mathematical problem into arithmetical language.

In order to master mathematical problem-solving, learners should be able to store and reproduce meaningfully ordered verbal information, which represents an important facet of mathematics learning. We can see that when the sequence of figures in simple operations is given orally to linguistic non-proficient learners, the learners might have difficulty in remembering these and writing them down in sequence. They might find 'story sums' extremely difficult, especially if the sums are given orally.

Learners should be able to select relevant ideas, discard the irrelevant and clarify categories of information before reproducing a meaningfully ordered translation of the mathematical problem into arithmetical language. Furthermore, those with limited language proficiency might struggle to order and categorise meaningful information relevant to mathematical problem-solving. Such learners need knowledge acquisition strategies to help them retrieve, sort through and order useful knowledge to solve number problems.

### *Associative ability, conceptual thinking and relational thinking skills*

Mastery of mathematics requires the ability to think relationally in terms of purely verbal stimuli (in other words convergent production of semantic relations), which involves specific processes and functions such as associa-

tive ability, conceptual thinking and verbal fluency. Intact long-term memory is also a prerequisite for adequate conceptual thinking, because accumulated knowledge and experience – upon which associative ability can be based – should be recalled. Linguistic non-proficiency might hamper associative ability, conceptual thinking and relational thinking skills.

In disadvantaged and poor communities, a lack of resources has a major influence on children's development, particularly on their language development and knowledge base (Donald, Lazarus & Lolwana, 2002). This base, along with discourse markers, styles of communication, values and attitudes, is culturally contextualised, and therefore linguistic non-proficient and culturally diverse learners' thinking reflects a way of seeing things that does not necessarily meet the challenges they face during mathematics teaching. In order to enhance conceptual and relational thinking skills, mathematics teaching and probing should be interwoven, and should aim at providing insight into the learners' understanding and knowledge base. During teaching the learning specialist should:

- Pose questions and set tasks that elicit, engage and challenge the learners' thinking.
- Listen carefully to the learners' ideas and ask the learners to clarify and justify these ideas orally and in writing.
- Decide what to pursue in depth from among the ideas the learners propose during a discussion.
- Decide when and how to attach mathematical notation and language to the learners' ideas.
- Decide when to provide information, clarify an issue, model and allow the learners to find their own solutions (Burns, 1993).

*Integration of graphic (pictorial) information with verbal descriptions*

Mathematical problem-solving also requires concrete, practical judgement based on language comprehension, the construction of hypotheses and the reinterpretation of ideas and symbols. Therefore, learners should be able to integrate graphic (pictorial) information with verbal descriptions. During the process of number problem-solving, the relationship between graphic stimuli and representative verbal descriptions must continuously be checked and evaluated. Limited language proficiency might pose a barrier to learners linking up graphics to related verbal descriptions. Learners with limited language proficiency might find it difficult to redefine and transform relatively complex verbal information (as presented in story sums) into graphics (a numeral sentence), and vice versa. Mathematical terms such as **plus, minus, sum of, product of, the difference between, more than** and **less than** must be associated with relevant non-verbal symbols (graphics) such as +, –, <, =, > and × in

order for the calculation to be executed. It is difficult for the linguistic non-proficient learner to shift the meanings of words from one context to another, and to attach mathematical symbolism (numeral sentence) to a verbal representation thereof.

## MATHEMATICS TEACHING THAT MAKES SENSE

The aim of mathematics teaching is to enhance learners' ability to use numbers to solve problems, hence the development of mathematical problem-solving. During lesson planning the learning specialist seeks to promote mathematics learning in ways that might lead to the improvement of an attempt at best practice. Best practice implies the following:

- Rote memorisation of tables and algorithms is to be replaced by probing which aims at encouraging the learners to explain their reasoning processes, justify their solutions to mathematical problems and formulate convincing arguments as to why their answers make sense (Burns, 1993).
- Learners continuously be requested to explain their thinking and reasoning processes and to relate their numerical figuring to the mathematical problem at hand.
- Verbalisation and explanations pave the way for paper-and-pencil activities that relate learners' understanding to mathematical symbolism.
- Learning specialists continuously incorporate thought provoking questions that place mathematical problems in a new context, or generalise application of newly mastered strategies.
- Learning specialists continuously explore the concepts embedded in the problem, encourage the learners to identify relationships therein and to explain what they already know about concepts or strategies, extrapolate the problem to other areas, challenge the learners' conceptions and probe for accurate and profound meaning (Burns, 1993).
- Teaching, probing and assessment tasks reveal sensitivity to cultural diversity, not leading to a certain way of thinking (because styles of thinking may be related to culture).
- Learning specialists allow for and use waiting time productively to allow learners to develop their own thinking.

### An effective environment

The mathematics learning environment created by the learning specialist must reflect a positive psychological climate that will elicit and enhance learners' enthusiasm for learning mathematics. The philosophy is that learners develop mathematical skills better in a healthy and positive learning environment than in an unhealthy, negative and rejective one.

The learning of mathematics is a collaborative process. The learning specialist who models collaborative skills such as leadership, decision-making, trust-building, healthy communication and conflict management will encourage learners to interact collaboratively in a positive manner during the learning process and thus learn more successfully. Metaphorically, the learning specialist can be seen as the travel agent who assists learners to explore new horizons, to journey along unfamiliar roads in the search of new destinations, to use the best equipment and to acclimatise to newly claimed territory. The learning specialist is a facilitator who is constantly watching the progress of the learners' learning, anticipating their needs, guiding them to productive learning and encouraging them to discover answers for themselves. In such a supportive environment, learners will assume active responsibility for their own learning, and will develop and use control executive functions such as planning, organising, monitoring and checking outcomes.

An effective learning environment provides many opportunities for successful learning experiences, facilitates strategic learning, and provides immediate feedback and reinforcement, thereby making learners aware of the results of their efforts. They can adjust their strategies accordingly – a process that promotes independent learning and self-direction. The learning of mathematics can be further enhanced through the use of instructional procedures that make sense, such as cooperative learning, and peer and cross-age tutoring.

**Peer and cross-age tutoring:** Peer tutoring is the instruction of one learner by another under the supervision of a learning specialist, while cross-age tutoring involves older, more advanced learners teaching younger ones.

### *Cooperative learning*

According to Ariel (1992: 296), cooperative learning is defined as 'a group learning experience in which the outcome results from common effort, the goal is shared by all its members, and each member's success is dependent on each other's'. Cooperative learning requires a set of practical strategies that the learning specialist can use to structure the relevant activities to promote the learning of mathematics. The following procedures are adapted from Ariel (1992):

**Cooperative learning:** 'A group learning experience in which the outcome results from common effort, the goal is shared by all its members, and each member's success is dependent on each other's' (Ariel, 1992: 296).

- Familiarise learners with cooperative learning and establish guidelines for cooperation:
  - explain the general principles of cooperative learning and the shared responsibility of each group and each group member
  - explain the learning or assessment task and the cooperative goal involved.
- Divide the learners into cooperative groups:
  - select the group size most appropriate for the learning or assessment task at hand

  - assign learners to groups to maximise the heterogeneity of learners in each group.
- Create a classroom set-up that is conducive to cooperative learning:
  - arrange seating so that group members sit close together and facing each other
  - provide a group activity area
  - provide appropriate support materials.
- Develop learners' cooperative learning skills:
  - provide opportunities for learners to practice specific cooperative skills
  - observe learner-learner interaction and act as facilitator when needed
  - assign group members specific roles and train them
  - provide feedback to learners concerning their effectiveness in cooperative learning.
- Evaluate cooperative learning:
  - develop evaluation and grading procedures
  - evaluate groups for their product as well as their ability to work together.
- Gather both individual and group data so that groups know when to give help and assistance to individual members.

*Peer and cross-age tutoring*

Peer tutoring refers to the instruction of one learner by another under the supervision of a learning specialist, while cross-age tutoring involves older, more advanced learners teaching younger ones. Both styles of tutoring can occur on a one-on-one basis or in small groups. The advantages of peer and cross-age tutoring are as follows:

- More individual attention can be spent with a learner who presents with specific challenges.
- It promotes understanding of individual differences.
- It facilitates collaboration and enhances the learning process.
- It produces both academic and social/emotional gains (Ariel, 1992).
- The tutor's own abilities and strengths are developed.
- Content is often rephrased from a peer's point of view and experiential background.

When tutors are selected, they should undergo specialised training. They have to know what the learning outcomes should be, and they should have a solid understanding of individual differences, and learning needs in particular. Tutors have to be trained in appropriate teaching procedures, and they should know the content to be taught and the materials

and methods to be used. Furthermore, tutors should reveal interpersonal skills that will engender a comfortable, effective and satisfying experience for both the tutor and the learner. In the training of tutors, both role-playing and practice tutoring sessions are important.

**Number readiness:** Skills essential for mathematics learning include classification, one-to-one correspondence, seriation, conservation, flexibility and reversibility. Older toddlers learn these readiness skills throughout their daily experiences at home and at preschool by means of play activities, constructional play, sorting and various experiences in the manipulation of objects. Prior to formal instruction in addition and subtraction, the foundation phase learner should start off with counting activities in order for number sense and flexibility to be developed.

## Number readiness

Certain developmental aspects such as attention span, concentration abilities, perceptual skills and motor development are closely linked to learners' readiness to learn mathematics in the foundation phase. The learner who has a short attention span and poor perception often struggles to see objects in groups or sets and has difficulty distinguishing between specific objects or attributes (Ariel, 1992). A poor sense of direction and spatial orientation can lead to reversal of numerals, difficulty in understanding reversibility, and problems with geometric concepts and measurements.

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### *Creating counting experiences*

Initially the learning specialist should provide the learner with ample opportunity to practise counting at all levels, i.e. learning to count at a concrete level by means of concrete objects, followed by learning to count at a semi-concrete level by means of domino cubes, objects (pictures) on play cards, various illustrations on paper, and so forth. Initially the learner counts in ones, later on in twos, and eventually in threes, fours, fives and tens. The aim is to develop the learner's flexibility with numbers, therefore the learner must practise counting back and forth from any given numeral. This is later followed by counting experiences with the aid of a number line and a 100-chart. These counting experiences should be repeated daily until the learner has mastered flexibility with numerals and has reached a level of automaticity.

### *Mastering number sense*

Mastering number sense and developing understanding of place value are important aspects of the mathematics curriculum for foundation level learners. To learn about place value, learners benefit from a variety of

experiences. They should estimate and count large numbers of things, work with concrete materials, look for patterns in written numerals, relate our number system to money and explore numerals in everyday contexts. Learners need to be engaged in activities that require them to compare different numerals and think about the logic of the numerical symbols (Burns, 1993).

*Introducing place value by means of the number line and 100-chart*

Learners should be guided to discover the position of numerals in relevance to other numerals. After learners have determined the answer, they are requested to write the numeral, for example: 'Where on the number line or 100-chart is the number 8? In front of which numeral does the 8 stand? Now write down the numeral. Which numeral does it follow? Now write down the numeral. In front of which numeral does the 5 stand? Now write down the numeral. Which numeral does 5 follow? Write it down. Which numeral is next? Write this down.'
By doing this activity, the learners are integrating their understanding of place value with number symbolism.

*Comparing numerals (more than, less than)*

Now learners are prompted to compare different numerals. At this stage the learning specialist only works with numerals one to nine. She poses the following problems: 'Which numeral is greater: 8 or 7? How much is 8 greater than 7? How much is 7 less than 8? Which numeral is two greater than 7? Which numeral is two less than 7?'

These problems are extended to include all numerals from one to nine, for example: 'What is the difference between 7 and 9?' After each question, learners are requested to write down the numeral.

Compiling and analysing numerals

*Learning combinations of numerals 1 to 10*

With loose counters, unifix cubes and the abacus, learners are guided to discover different combinations of numerals, using different groups of counters. Learners practise combinations of numerals up to 5, followed by combinations of numerals up to 10. A variety of combinations is practised, and on gaining an understanding of these combinations the learners start to practise what they understand by means of pencil-and-paper activities. All numerals are analysed in two and three components, and all the combinations are practised until the learners have mastered the combinations of numerals up to 10.

*Learning combinations of numerals 10 to 20*

With unifix cubes, the abacus and spread charts 1–20, learners start to practise combinations of numerals 10 to 20. The numeral 10 should always be seen and handled as a unit. Afrikaans speaking children start with the numeral 15, because numerals prior to 15 are not aurally supportive (i.e. they do not sound the same). English speaking children start with the numeral 14, because numerals prior to 14 are not aurally supportive. The learning specialist makes use of the abacus and, while relying heavily on the auditory, she guides the learners to discover the following combinations: 10 + 4 = 14, 10 + 5 = 15, 10 + 6 = 16, 10 + 7 = 17, 10 + 8 = 18 and 10 + 9 = 19. Only then does the learning specialist return to the 'bottom numerals' and the learners discover that 10 + 1 = 11, 10 + 2 = 12, 10 + 3 = 13, etc.

Following this, the learning specialist starts using the spread charts to map the different combinations. She puts down the 10-chart, and places the 4 over the 0 of the 10 while she explains: 10 + 4 = 14. She maps all numerals in the same way, using the previous sequence (10 + 4 = 14, 10 + 5 = 15, 10 + 6 = 16, 10 + 7 = 17, 10 + 8 = 18 and 10 + 9 = 19; and backwards to 10 + 1 = 11, 10 + 2 = 12, 10 + 3 = 13). The rationale is that the learners should discover that the numeral 1 which they see in numerals such as 11 and 19 in fact represents 10 and not 1. In a similar way, learners also discover that 10 + 10 = 20.

*Learning combinations of numerals up to 99*

With the abacus, spread charts 1–99, 100–chart and 100 colour cubes in a 10–by–10 tray, learners are guided to see the similarity between the abacus, the 100–chart and the 100 colour cubes tray. The learning specialist starts with numerals 10, 20, 30, 40, 50, 60, 70, 80 and 90, while relying on learners' existing knowledge and their ability to count in tens. The learning specialist uses the abacus, moves two rows of counters and says: 'Here are 20. Add 10 to these. How many are there now? Correct, now we have 30. See, we have 3 rows of 10 each. We could also say we have 3 tens.' A simplified version of extended notation is then introduced, using pencil-and-paper activities. For example: 30 = 10 + 10 + 10, or 30 = 20 + 10.

The learning specialist then poses the following sequence of questions, using the 100 colour cubes tray:

- 'How many blocks do you think there are in the tray? Check to find out for sure.' (The word 'blocks' is used instead of 'cubes' to simplify the language.)
- The learning specialist builds a 2–by–2 cube and asks: 'How many blocks did I use to build this cube?'

- 'Can you somehow write down this problem?'
- 'If you use all 100 blocks to build cubes this size, how many can you build? Will any blocks be left over? How many?'
- 'Would you like to build the cubes to check or are you sure about your answer?'
- 'Can you somehow write down this problem?'
- 'Add some blocks to a 2–by–2 cube to make it a 3–by–3 cube. How many blocks did you use altogether for the 3–by–3 cube?'
- 'Can you somehow write down this problem?'
- 'How many 3–by–3 cubes could you build using all 100 blocks? Will any blocks be left over? How many?'
- 'Can you somehow write down this problem?'

*Learning to write down simplified extended notation*

The learning specialist uses the spread charts and work with numerals 21–29, 31–39, 41–49, and so forth. By introducing the 20–chart, she places down the 1 over the 0 of the 20 while explaining: '20 + 1 = 21'. She removes the 1 and places the 5 over the 0 of the 20 and asks: 'How much is 20 + 5?'. She extends the learners' knowledge to other numerals. The learners themselves then map different numerals that are presented to them orally and in writing. Simplified extended notation is also practised, for example: 54 = 50 + 4, 54 = 20 + 20 + 10 + 4.

The learning specialist ensures that these concepts are well understood and established before learners proceed to the next activity.

*Learning combinations of numerals 100 to 999*

With spread charts 1–999, the learning specialist explains the combination of various numerals, for example 283, by introducing the 200–chart to the learners. She puts down the 80 over the 00 of the 200, followed by the numeral 3 over the 0 of the 80. The learners proceed by analysing 283 orally, using simplified extended notation: 283 = 200 + 80 + 3. The learners have to explain the notation verbally while writing it down. Various other numeral between 100 and 999 are analysed in the same way.

*Learning about visual representation, writing (notation), recognition and reading of numerals 10 to 100 and 101 to 1 000*

The learning specialist uses the abacus (numerals up to 100), spread charts 101–1 000, and sheets of paper to write on. By now the learners have a relatively sound understanding of numerals, but they still need some practice in order to integrate visual representations of numerals with reading and writing skills. To represent the numeral 45 visually, the

learning specialist says the numeral so that the learners can hear it. The learners count 10, 20, 30, 40 with the aid of the abacus, add another five counters, and say: '40 + 5 = 45'.

The use of the abacus is immediately followed by spread chart activities. Learners place the 40 in front of themselves, put the 5 over the 0 of the 40 and say: '40 + 5 = 45'. The spread chart activity is followed by pencil-and-paper activity (writing and reading). Learners write down 45, using pencil and paper, and read the numeral.

They proceed to numerals higher than 100. First the learners say the numeral (auditory input), then they construct a visual representation of the numeral by using the abacus, then they map the numeral by using spread charts, and finally they write down the numeral.

#### *Consolidating recognition and reading of numerals*

The learning specialist uses spread charts and sheets of paper to write on. Learners must be able to recognise and read the numerals that are constructed with the aid of spread charts, or numerals that are presented to them in writing. When they experience difficulties, they are prompted to untie the numeral that is constructed with the aid of the spread charts.

### Doubling and halving numerals

#### *Learning about doubling numerals*

This activity provides useful knowledge to put into practice with multiplication, as well as different strategies and techniques inherent in addition. The learning specialist starts with he doubling of numerals 1–10, followed by decade numerals 20, 30, 40, and so forth. When the learners have a solid knowledge of numerals 1 to 100, the learning specialist proceeds with numerals 100, 200, 300, and so forth. To double numerals such as 34 and 38, learners are guided to implement some kind of strategy or technique such as 34 + 34 → 30 + 30 + 4 + 4 → 60 + 8 → 68 and 38 + 38 → 30 + 30 + 8 + 8 → 60 + 16 → 60 + 10 + 6 → 70 + 6 → 76.

#### *Learning about halving numerals*

This activity provides useful knowledge to put into practice with division. The learning specialist bases this activity on learners' existing knowledge of doubling. Learners start to halve numerals up to 20, followed by halving of decade numerals, and finally numerals 100, 200, 300, and so on. To halve numerals such as 28 and 38, learners are guided to implement some kind of strategy or technique such as: half of 28 → 20 + 8 → 10 + 4 → 14, half of 38 → 30 + 8 → 20 + 10 + 8 → 10 + 5 + 4 → 19, or half of 38 → 30 + 8 → 15 + 4 → 19.

### Manipulating and computating numerals

No formal drilling is done in the teaching of combinations of numerals. By means of well-established counting skills and a solid number sense, learners discover their own techniques and strategies that will allow them to master various number problems.

Although there are minimum requirements (in Grade 1 the learner should master computations up to numeral 10, in Grade 2 up to numeral 20, in Grade 3 up to numeral 99), foundation level learners should be allowed to set their own pace within a certain number area. All types of computations – addition, subtraction, multiplication and division – are taught simultaneously. The learning specialist is nevertheless advised to ensure that learners have mastered addition and subtraction before attempting multiplication and division.

Learners should first be encouraged to solve simple addition problems at concrete level before more advanced number problems at semi-concrete and abstract levels are introduced. All synonyms such as plus, add up, put together, add together and increase should be introduced. Only when learners have mastered addition are they prompted to discover the inverted reasoning involved in addition and subtraction. Again, all synonyms such as minus, take away, remove, subtract, loose and decrease should be introduced. Subtraction is typically difficult for young learners, therefore the learning specialist presents them with a subtraction problem with coloured tiles and watches to see if the learners have to count or if they have some other way to reason numerically. The learning specialist asks: 'Suppose I didn't want 24 tiles, but only 16. Can you take some away so that only 16 are left?' The learning specialist checks on their understanding of the meaning of the digit by inviting them to write the numeral 16. Often, young learners struggle more with numerals in the teens than with larger numerals owing to the irregular language pattern. In twenty-six, fifty-two, seventy-one, and so on, the word relates directly to the written numeral. This is not true, however, for numerals less than 20.

### Learning about story problems

Story problems represent situations involving mathematical operations. Furthermore, they allow learners to apply the skills learned in basic operations to real-life situations. Successful problem-solving requires mental manipulation, reasoning, and inductive and deductive reasoning, whereas procedural knowledge usually involves effective utilisation of strategies, the monitoring of progress and the checking of outcomes (Ariel, 1992). The learning specialist must guide learners through the process, using modelling and visual and verbal cues. The teaching of problem-solving skills should also proceed from the concrete to the pictorial and the

symbolic levels. The teaching of problem-solving involves the following considerations:

- Story problems should be directly linked to learners' learning environment and directly related to their experience.
- Story problems should involve activities that can be easily understood by learners, which in turn should reflect cultural sensitivity.
- The level of verbal language in story problems should be appropriate to learners' functional level in verbal receptive and expressive abilities.
- The learning specialist should assist learners with reading difficulties so that they can understand story problems. Without assistance, such learners' reading abilities are assessed and not their problem-solving skills.
- The learning specialist should teach logical thinking processes by assisting learners in breaking down the story problem into meaningful components.
- Appropriate manipulative materials should be made available to assist learners in the solution of story problems.
- The learning specialist should model effective problem-solving by using pictorial representations of the elements in story problems, story mapping, drawings and diagrams.
- Learners should be encouraged to use metacognitive strategies in problem-solving, such as the development of systematic procedures to evaluate their answers to story problems.
- When the learners have mastered the preceding basic operations and computation skills, a firm foundation is laid for the teaching of related mathematical concepts such as measurements, time and weight. Therefore, continuous review is necessary in order to provide scaffolds that could facilitate understanding.

Superstrategies

- Read and understand the problem.
- Look for the key question(s).
- Recognise key words ('how much', 'difference', 'total', 'product', 'sum').
- Make use of a diagram or mapping strategies to clarify understanding.
- Check whether additional information is needed for the solving of the problem.
- Consider where you should find additional information, or whether you are overlooking the obvious.
- Select the appropriate mathematical operation(s).

- Write the number sentence (equation) and solve it.
- Check your answer.
- Correct your errors.

### Using instructional materials and methods effectively

For the educational psychologist, it is somewhat easier to select instructional materials and methods for mathematics lesson planning than for other learning areas because we usually focus on specific competencies, depending on the developmental phase of the learners. The educational psychologist may use the following guidelines to assist the learning specialist in selecting instructional materials and methods for mathematics lesson planning:

- Materials must be consistent with the principles of mathematics teaching and in keeping with principles of OBE (Department of Education, 1997).
- Skills acquisition must follow a step-by-step progression.
- Materials must facilitate acquisition of fundamental numerical skills, facilitate understanding, clarify concepts and offer possibility of application by means of word problems and problem-solving.
- Materials should be attractive and age appropriate (Ariel, 1992).
- Materials must be presented in a format that facilitates learners' independent error correction abilities, and allows monitoring of learners' progress.

#### *The role of drill and practice*

When learners have achieved a solid understanding of operations, fundamentals and concepts, the learning specialist usually relies upon drill and practice to bring learners' knowledge to an automatic level. At this level, learners perform without hesitation and demonstrate full mastery of skills. Their conceptual understanding must precede the practice in order for their retention and automaticity to be increased.

When to use and when not to use drill and practice:

- Practice and drill is not equivalent to coaching and training.
- Practice and drill should be geared to reinforcing concepts already learned.
- Activities should be spaced to avoid fatigue and maintain interest.
- Practice and drill should involve a variety of strategies.
- Practice should always be supervised to ensure the use of correct methods.

- Feedback on learners' performance during practice should be immediate.

*Using mathematical games*

Because mathematical games have a motivational aspect, they should form an integral part of mathematics learning, teaching and assessment. Games add to a well-rounded and well-balanced programme of learning activities and experiences in mathematics because they are exciting, practical, satisfying, and encourage group work and active participation. Games also assist learners to master automaticity, which enables them to solve problems quickly. Games provide drill that has built-in motivation, reinforces learned skills, is enjoyable and helps learners develop an appreciation for the usefulness of numbers (Ariel, 1992). They also enable learners to switch from being passive consumers of information to being active decision-makers, they promote desirable social interactions among learners by encouraging cooperation and discussion, and they provide learning specialists with diagnostic information which can be used to help learners to correct misconceptions or fill gaps in their learning.

It is best to follow these guidelines when developing mathematics games:

- Select activities that are within learners' mastery level and easy to introduce.
- Ensure that the games have elements of both fun and reinforcement.
- Decide on specific outcomes that the particular game should facilitate.
- Make simple, durable materials.
- Write simple rules and procedures.
- Make provision for immediate feedback.
- Build in some anticipation.
- Create the material so as to allow variations.
- Have the game peer-evaluated by a colleague.

Types of games that can be developed include:

- Preparatory games that enhance readiness-to-learn mathematics, based on perceptual-motor skills.
- Exploratory games for introducing mathematical concepts, seriation, conservation, matching, numerical equivalence and numerical relationships.
- Exploratory games for the acquisition of new concepts.
- Reinforcement games for practising new concepts.
- Problem-solving games that enhance problem-solving strategies.
- Comprehensive mathematical games that include all the preceding elements.

## COMPUTER-ASSISTED LEARNING AND TEACHING

Combinations of computerised and conventional learning and teaching may work well to consolidate newly learned skills, to assist learners who experience learning difficulties, and to make provision for those learners with differential styles of learning. Learners can be assigned to computerised programs to increase motivation and reduce the resistance often detected among learners with special education needs. For learners who experience learning difficulties, such teaching offers a positive break from the routine of failure experiences.

The further advantages of computer-assisted learning and teaching are numerous, as it provides multisensory learning experiences given by a dynamically responsive visual learning pattern with the possibility of auditory clues (Schmidt, Weinstein, Niemic & Walberg, 1985–86). It provides a secure, one-on-one learning environment, while still requiring that learners take some responsibility for their own learning. Pacing can be adapted to individual learner needs, and provision can be made for over-learning and over-practice by means of truly individualised programs of learning. The requirement of type-in responses appears to be ideal for learners who struggle to pay sustained attention, which gives them a sense of control and mastery over the learning task. For learners who are dependent on one-on-one tutoring, feedback is prompt and immediate. Carefully selected programs also provide mathematical and linguistic modelling.

The following aspects enhance the effectiveness of computer-assisted learning and teaching (Ariel, 1992):

- Programs can be structured to allow learners a limited amount of time to respond to questions.
- It provides up-to-the-minute information on learners' strengths and weaknesses, thus helping the learning specialist to effectively balance learning needs and instruction.
- Depending on the type of reporting system embedded in the program, it provides learners with feedback on their progress.
- Learners who make use of such learning are more likely to perceive themselves as capable learners.
- Such individualised programs of learning impact positively on cognitive growth when used properly – learners become increasingly self-directed in their learning styles.

## CONCLUSION

In this chapter we explored how the educational psychologist's role with regards to acquisition of mathematics literacy is aimed at the analysis of

learners' specific learning needs, provision of consultative advice, and of educator, learner and parent support. In order to fulfil these roles, the educational psychologist has to be mindful of the four defining principles of OBE: clarity of focus, designing down, high expectations and expanded opportunity for learning. The focus on drill and rote memorisation is replaced by the acquisition of mathematical skills and teaching for understanding. Young learners first act upon and manipulate objects in the environment (concrete experience, enactive representation), then they develop mental imagery (figural, iconic), and finally they associate labels (names) with the objects (symbolic, form of language).

We discussed how limited language proficiency might pose a barrier to using mathematics effectively as a communication tool, and looked at creating an effective mathematics learning environment and teaching mathematics in a sensible manner. Such teaching follows a sequential development in which higher level skills are built upon lower level skills. The essence of teaching mathematics is to follow through on the mathematics continuum.

We completed our discussion with specific guidelines for effective use of instructional materials and methods.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 Which OBE principles must be taken into account in the planning of a mathematics programme of learning and learning support?
2 Why should the learning specialist have insight into how learners construct and deconstruct mathematical concepts?
3 In which ways can limited language proficiency pose a barrier to using mathematics effectively as communication and problem-solving tools?
4 In which ways can the learning specialist create a positive psychological climate that will elicit and enhance learners' enthusiasm for learning mathematics?
5 In which ways can the learning specialist facilitate number readiness and the mastering of number sense among foundation level learners?
6 What must the learning specialist consider when selecting instructional materials and methods for mathematics lesson planning?
7 What is the role of drill and practice in bringing learners' knowledge to an automatic level?
8 How might mathematical games add to a well-balanced programme of learning activities and experiences in mathematics?
9 Of what nature should mathematical games be in order to assist learners to construct and deconstruct mathematical concepts?
10 Reflect on the advantages and disadvantages of computer-assisted learning and teaching of mathematics.

## VOICES

There is a common belief that you cannot learn mathematics, but in order to master mathematics you have to practise it over and over again, and with continuous practice comes insight!

– Grade 12 mathematics teacher, Kimberley

In the lower grades mathematics just didn't make sense, and I could never master all those tables ... it was only in high school that I sensed the point of mathematics, because my teacher was passionate about it. He encouraged us to discuss our ideas and prompted us to generate new applications. My own understanding and appreciation of mathematics spawned from his enthusiasm ...

– Student at Midrand Graduate Institute, Gauteng

## APPLICATION STRATEGIES

The strategies are as follows:

- Mathematics teaching follows a sequential development in which higher level skills are built on lower level skills – the essence of teaching mathematics is to follow through on this mathematics continuum. Therefore move the teaching from the concrete to the figural to the symbolic levels, in keeping with the learners' level of cognitive development.
- Always preserve the designing down or back principle, which implies that strategic prior knowledge should be activated before new concepts are introduced.
- Have a solid knowledge of learners' functional level in mathematics with regard to computation, concept attainment and skills application.
- Put at the learners' disposal a variety of teaching aids to support their learning. The aids include pictures, diagrams, an abacus, spread charts, a 100-chart, a number line, and manipulative materials such as counters and colour tiles.
- Make mathematics teaching meaningful and about problem-solving; it must facilitate thinking rather than simply producing correct answers.
- Carefully sequence mathematics skills attainment, and present new concepts in small units and in simplest form.
- Verbal mediation is of utmost importance – encourage learners to talk about mathematics, discuss their ideas and collaborate verbally in order to solve problems.
- Follow all activities by immediate, controlled feedback and reinforcement, including correction of errors.
- Take every opportunity possible to allow learners to practise application of the mathematics fundamentals they have learned. Make them aware, when they have reached mastery level, of situations and circumstances in which they can use their newly learned strategies, and of ways to adjust these strategies to meet the needs of unique situations.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 What will I do differently now that I have read about the ways in which mathematics is taught to learners?
2 In future, why will I be less concerned about correct algorithms, formulas and techniques as opposed to facilitating learners' thinking and problem-solving skills?
3 As a mathematics teacher, how will I go about bringing learners' knowledge to an automatic level and fostering insight?

## TEN FACTS ABOUT ACQUISITION OF MATHEMATICS LITERACY

1 Every learner can master mathematics.
2 The language that is used to teach mathematics should match the learner's developmental level and facilitate the understanding of mathematical concepts, allowing the learner to master the units prior to advancing to the next level.
3 Cognitive academic language proficiency (CALP) allows learners to verbalise their thought processes and further their mathematical thinking.
4 Vocabulary, ready knowledge, memory, associative ability, conceptual and relational thinking, as well as the ability to integrate graphic (pictorial) information with verbal descriptions, are essential skills serving CALP.
5 During the teaching of mathematics we should listen to what learners are thinking and how they explain their thinking processes in order to obtain a comprehensive picture of what the learners understand.
6 Having learners memorise rules and algorithms, find exact forms for answers, do computation out of context and answer questions that require only 'yes', 'no' or a number of fixed responses do not facilitate mathematical reasoning and understanding.
7 We should use wait time productively, allowing learners sufficient time to process their thoughts, because a quick response does not always indicate clever thinking.
8 Learners with limited language proficiency need knowledge acquisition strategies to help them retrieve, sort through and order useful knowledge to solve number problems.
9 There is a close link between acquired ready knowledge, reapplication of such knowledge and inductive reasoning. These acquired 'skills' support learners to independently discover 'the rule' required for solving the mathematical problem.
10 Teaching and assessment of mathematics form a double spiral – one building upon the other, and one inspiring the other. Ongoing assessment also provides a feedback loop that enables us to modify the programme of learning.

## SUGGESTED READING

Naudé, H; Pretorius, E and Vandeyar, S (2003). 'Teacher professionalism – An innovative programme for teaching mathematics to foundation level learners with limited language proficiency' in *Early childhood development and care,* 173: 293–316.

## SUGGESTED COMPUTER PROGRAMS

Developmental Learning Materials, *Academic skills builders in math.*
Educational Activities, Inc, *Basic math competency skill drills.*
Love Publishing Co, *Basic skills in math.*
Science Research Associates, *Computer drill and instruction.*
Media Materials, *Mathematics problem-solving.*
Cuisinaire Company of America, Inc, *Math ideas with base ten blocks.*
Compu-Station, *Soccer math.*

## SUGGESTED VIDEOTAPES

Insight Media (2003). 'Classrooms of the future: Mathematics and science.'
This video demonstrates how simulation models and new technological instruments can reveal hidden worlds of science, and considers how these models can bring students to an understanding of mathematical principles.
2162 Broadway, New York, USA
e-mail: cs@insight-media.com
web page: www.insight-media.com
fax: 212-799-5309

Insight Media (2003). 'Mathematics with a human face'.
Introducing the idea of math 'literacy', this video helps teachers-in-training prepare to teach mathematics to elementary students. It features study sessions in which peer tutors work with small groups of students on homework assignments. It presents scenarios that illustrate how to ask questions, use manipulatives, offer encouragement and handle challenging questions.
2162 Broadway, New York, USA
e-mail: cs@insight-media.com
web page: www.insight-media.com
fax: 212-799-5309

Insight Media (2003). 'Math strategies: Introducing fractions.'
Designed for teachers of the primary grades, this video provides an introduction to fractions. It demonstrates the use of manipulatives and games in a fraction lesson plan.

2162 Broadway, New York, USA
e-mail: cs@insight-media.com
web page: www.insight-media.com
fax: 212-799-5309

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National Council of Teachers of Mathematics (NCTM) (1991). Professional standards for teaching Mathematics. Reston, VA: NCTM.

Schmidt, M; Weinstein, T; Niemic, R and Walberg, HJ (1985–1986). 'Computer-assisted instruction with exceptional children' in *Journal of Special Education*, 19(4): 493–501.

Strauss, JP; Van der Linde, HJ and Plekker, SJ (2001). *Education and manpower development*, 2001/20. Bloemfontein: University of the Free State.

Vandeyar, S and Killen, R (in press). 'Has curriculum reform in South Africa really changed assessment practices, and what promise does the revised National Curriculum Statement hold?' in *Perspectives in Education.*

# Learning Styles

Pieter du Toit

## INTRODUCTION

The aim of this chapter is to make all facilitators involved in education and educational psychology practices, as well as all learners, aware that every person has different preferences with regard to learning. This has implications for how we facilitate learning and how we design learning interventions. Against the background of recent theories on multiple intelligences, this chapter investigates the imperative of accommodating different learning styles in the facilitation of learning. It also promotes the idea of developing learning style flexibility in both the facilitator and the learner. Although an array of different theories on learning styles exists, two particular theories are introduced here that serve as an overarching framework in which other theories could be located.

Every learner has unique, unlimited potential. Facilitators should create opportunities through which a learner's potential can be rediscovered and developed to the full. Challenges such as this bring the quest for creativity to the fore. Therefore, this chapter discusses theories in a way that applies the underpinning principles to the context of the intentional design of opportunities for effective learning – the responsibility of any educator or education psychologist (who are referred to in this chapter as 'facilitators').

Learning brings about change, change means growth and growth is a continuous process for as long as we live. At times learning is intentional; at other times it is accidental. Characteristic to deep learning are the processes of exploration, discovery and experimentation. In order for meaning to be constructed, productive learning should be promoted. The unknown, typical of the current world of work, urges us to focus on productive thinking instead of reproducing learned knowledge.

The unknown engenders uncertainties and therefore asks for creativity in all aspects of life – including education in general, educational psychology practices and learning. Part of rediscovering the creative potential in humans means, *inter alia,* that both the facilitator and learner need to become versatile and whole-brain partners. In this respect recent studies refer to eight different types of intelligences (see below) that should be developed. Other studies refer to brain profiling, and developing both the left (logic) hemisphere and right (creative) hemisphere of the brain.

A short discussion of multiple intelligences (MIs) prepares the palette for applying the colour codes of learning style flexibility and experiential learning.

## MULTIPLE INTELLIGENCES

Gardner (1993) claims that we do not have a single, fixed intelligence that can be determined with a standardised IQ test. He (1993) and other scholars in the field theorise that there are at least eight different intelligences, and that each individual has a differing combination of these. This should be borne in mind by all facilitators of learning. An implication is that they must design learning opportunities and interventions in a wide variety of ways (Armstrong, 1994) to offer learners the opportunity of learning in equally various ways. Integrated with this is the way in which they would assess the learners' mastery of the learning outcomes for a specific learning opportunity. Therefore, a learning opportunity featuring MIs can focus on alternative assessment methods that accommodate learners' different intelligences, their varying levels of ability and their special needs.

The concept of **intelligence** is approached from a different perspective in the sense that Gardner's theory promotes the idea that a person's cognitive ability is multidimensional – it cannot be reduced to a single number on paper. In this regard, he states:

> It is of the utmost importance that we recognize and nurture all of the varied human intelligences, and all of the combination of intelligence. We are all so different largely because we all have different combinations of intelligences. If we recognize this, I think we will at least have a better chance of dealing appropriately with the many problems that we face in the world (Gardner, 1993: 12).

Every person has an array of intelligences and we differ vastly in our combination of these. Gardner has the following to say in this regard: 'Just as we look different from one another and have different kinds of personalities, we also have different kinds of minds' (quoted in Checkley, 1997: 2). An important characteristic of the MI theory is that every learner should be accommodated as a whole. Each learner's uniqueness should be respected and developed. Figure 8.1 illustrates the various intelligences.

The following intelligences are associated with the left brain:

- **Logical-mathematical intelligence:** This is the well-known kind of intelligence associated with problem-solving; it is the non-verbal ability to come to (logical) causal conclusions which may involve mathematical calculations.
- **Linguistic intelligence:** This constitutes the ability to perceive, interpret and produce language as verbal functions.

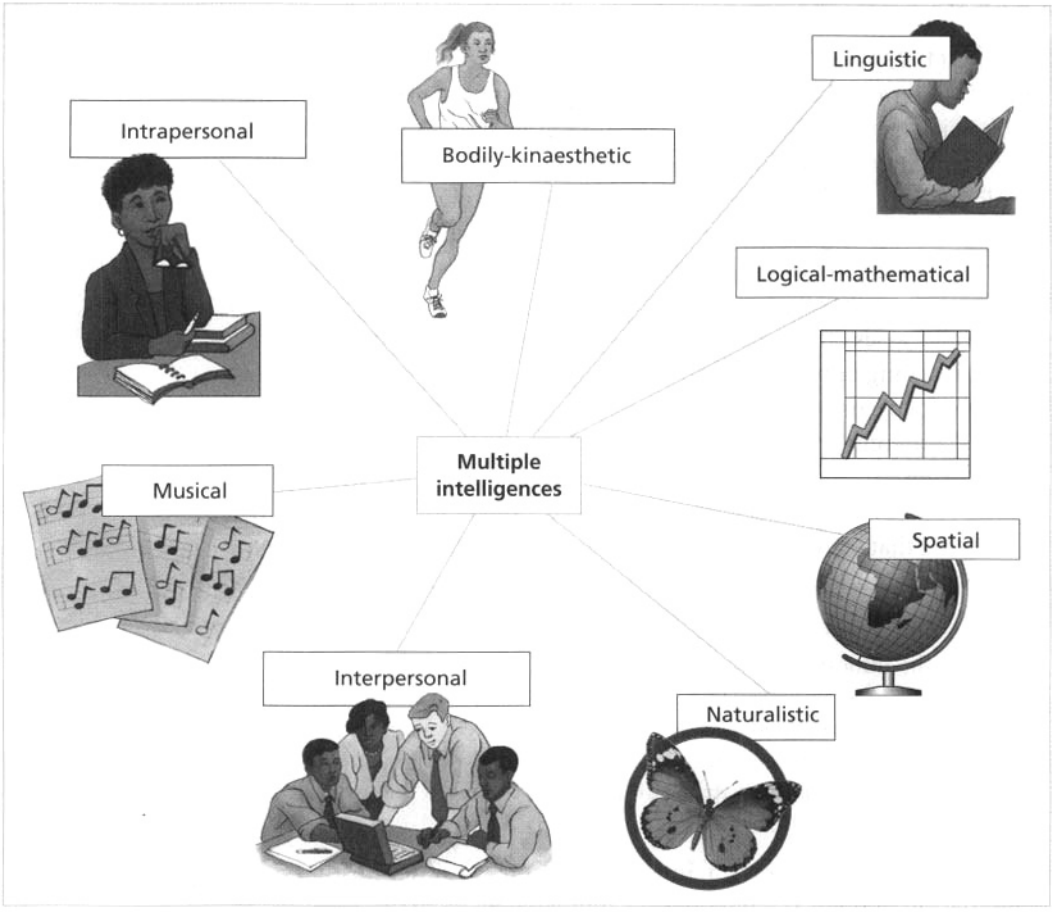


Figure 8.1 Representation of the intelligences

Traditionally, only these two intelligences were diagnosed and used to describe a learner's IQ. Today we know that this neglects the functions of the right hemisphere of the brain, which consists of the following intelligences:

- **Interpersonal intelligence:** This is the ability to relate with others and cooperate in social interaction.
- **Intrapersonal intelligence:** This functions to control the perception, interpretation and production of the intra-subjective relationship (with and regarding the self).
- **Musical intelligence:** This is the ability to perceive, appreciate and produce music.
- **Spatial intelligence:** This is the perception or construction of a mental model of a spatial world, as well as the manoeuvre and application of that model.

- **Bodily-kinaesthetic intelligence:** This is the ability to control body movement to solve problems or to create a product using the whole body or parts of it.
- **Naturalistic intelligence:** This entails all activities related to positive interactions with nature.

## THE HERRMANN FOUR QUADRANT WHOLE-BRAIN MODEL

Research has been done by scholars such as MacLean, who proposed the triune brain theory, and Sperry, who devised the left-brain right-brain model (both in Herrmann, 1995). These gave impetus to the development of Herrmann's (1995) whole-brain model. The research eventually brought about the specialised functions listed in Table 8.1, which are associated with the left and right hemisphere. The left hemisphere is logical, analytical, quantitative, rational and verbal. The right hemisphere is conceptual, holistic, intuitive, imaginative and non-verbal.

Table 8.1 Specialised functions associated with each brain hemisphere (adapted from Trotter, 1976)

| Left hemisphere | Right hemisphere |
|---|---|
| Speech/verbal | Spatial/music |
| Logical, mathematical | Holistic |
| Linear, detailed | Artistic, symbolic |
| Sequential | Simultaneous |
| Controlled | Emotional |
| Intellectual | Intuitive, creative |
| Dominant | Minor (quiet) |
| Worldly | Spiritual |
| Active | Receptive |
| Analytic | Synthetic, gestalt |
| Reading, writing, naming | Facial recognition |
| Sequential ordering | Simultaneous comprehension |
| Perception of significant order | Perception of abstract patterns |
| Complex motor sequences | Recognition of complex figures |

According to Herrmann (1996), physical connections secure integrated brain activity, although each hemisphere is specialised in a different way. Gazzaniga (1998: 35) refers to ongoing research that reaffirms that 'the two hemispheres control vastly different aspects of thought and action. Each half has its own specialisation and thus its own limitations and advantages'.

The left and right hemispheres represent cerebral processes and the two halves of the limbic system represent the more visceral (feeling-based) processes. Each quarter has distinct groupings of cognitive functions. Preference for the A-quadrant (left cerebral mode) indicates that a learner favours activities which involve logical, analytical and fact-based information – referred to as the **'intellectual self'**. A preference for the B-quadrant (left limbic mode) implies a linear approach to activities. Learners with a B-quadrant preference favour organised, sequential, planned and detailed information – referred to as the **'safekeeping self'**. They are conservative in their actions and like to keep things as is. A preference for the C-quadrant (right limbic mode) points to favouring information that is interpersonal, feeling-based and involves emotion – referred to as the **'emotional self'**. A preference for the D-quadrant (right cerebral mode) is mainly characterised by a holistic and conceptual approach in thinking – referred to as the **'experimental self'**.

The cerebral mode is the more cognitive, intellectual part of our thinking processes, while the limbic mode is the more structured, visceral and emotional part. These specialised mental modes function together situationally and iteratively, making up a whole brain in which one or more parts become dominant.

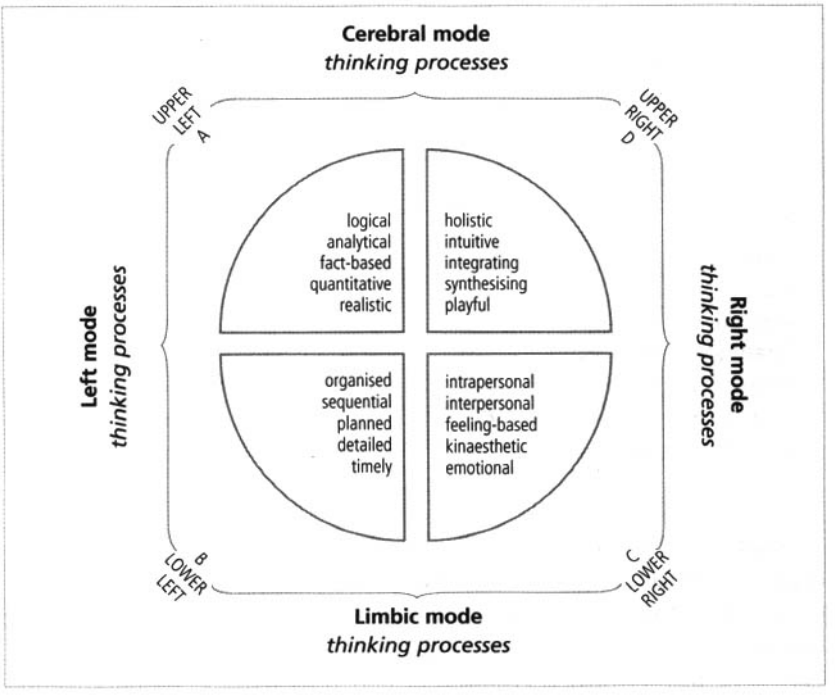


Figure 8.2 Herrmann's whole-brain model (adapted from Herrmann, 1996)

It is documented that effective learning takes place when the whole brain is involved in learning (see Knowles, 1990; Buzan, 1991; Ornstein, 1997). In terms of Herrmann's model, illustrated in Figure 8.2, this implies that all four brain quadrants are involved in learning activities. Lumsdaine and Lumsdaine's (1995) identification of four modes of learning can apply to Herrmann's model as follows:

- **External learning** is related to teaching from authority through lectures, lessons and textbooks. It is predominantly A-quadrant learning.
- **Internal learning** can be described as an insight or visualisation, and the synthesis of data through an understanding of concepts holistically or intuitively. This is predominantly D-quadrant learning.
- **Interactive learning** is brought about by discussion, hands-on activities and sensory-based experiments in which a learner can try, fail and retry with an opportunity for verbal feedback and encouragement. It is predominantly C-quadrant learning.
- **Procedural learning** is characterised by a step-by-step testing of what is being taught, as well as practice and repetition to improve skills and competence. It is predominantly B-quadrant learning.

These four learning modes highlight that learning experiences ought to be constructed to accommodate and utilise the cognitive functions in all four quadrants of the Herrmann whole-brain model. Cognitive functions are accommodated when learning activities are constructed to comply with a learner's preferred mode of learning. The functions are utilised when learning activities are constructed in such a way that those functions associated with all four quadrants of the Herrmann model are used, as illustrated in Figure 8.3, overleaf.

The left (structured) mode is categorised by processes dealing with logical, rational, critical, quantitative issues and activities. The procedural, planned, sequential and organised elements of learning activities are found in this mode. The learning activities are depicted in the cultural and social environment by achievements, fact-based knowledge and traditional ways. The right (experiential) mode is categorised by processes dealing with visual, conceptual, emotional and interpersonal activities. In the cultural and social environment, the learning activities of this mode can be described as participative and future orientated. The inclusion of all these modes in learning comprises a full range of activities.

Activities that implement all the modes of Herrmann's model will ensure that learners' preferred thinking styles are accommodated and less preferred thinking modes are utilised. Herrmann's model requires that facilitators become aware of their own thinking preferences and the

implications thereof for their practices. As Felder (1996: 18) remarks, if educators

> teach exclusively in a manner that favours their students' less preferred learning style modes, the students' discomfort level may be great enough to interfere with their learning. On the other hand, if [they] teach exclusively in their students' preferred modes, the students may not develop the mental dexterity they need to reach their potential for achievement in school and as professionals.

The Herrmann brain dominance instrument (HBDI) is used as diagnostic instrument for identifying learners' learning style preferences.

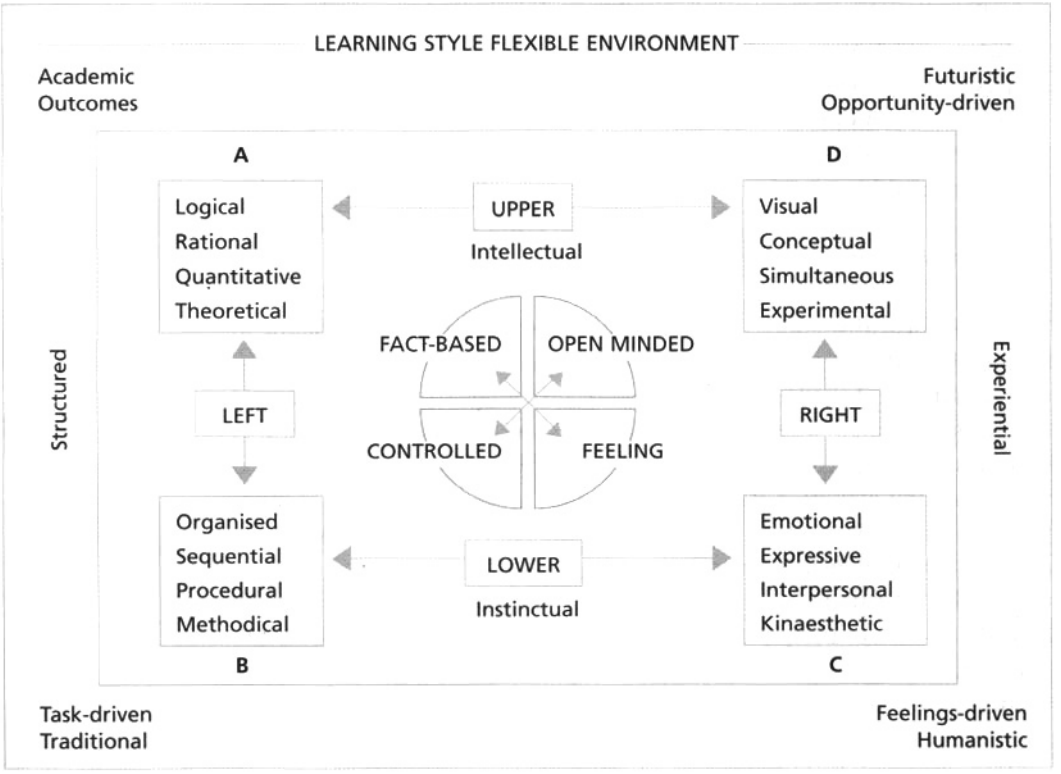


Figure 8.3 A learning style flexible model (adapted from Herrmann, 1995)

### Approaches to designing learning activities

A variation in design and delivery approaches would facilitate learning in all four of the specialised quadrants. Structuring learning activities to incorporate the expectations of learners in these quadrants, as summarised in Table 8.2, would facilitate the development of the full potential of learners. This will accommodate learners' thinking

preferences, and areas of lesser preference and avoidance are activated. For example, if the learning content contains fact-based data and research results in a logical order, a learner with a thinking preference for the A-quadrant will feel comfortable if the content is presented in a lesson-type instruction. For a learner with a thinking preference for the C-quadrant, facilitation of learning pertaining to data and research results should be constructed to include group discussion and personal involvement. Designing learning activities in such a whole-brain way provides the basis for bridging the gap between the unique individual learner and the design and delivery of the learning, therapy, assessment or intervention.

Table 8.2 Expectations of learners with thinking preferences in the four quadrants

| **A-quadrant preference** | **D-quadrant preference** |
|---|---|
| The learner expects:<br>• precise, concise information<br>• theory and logical rationales<br>• proof of validity<br>• research references<br>• textbook readings<br>• numbers, data. | The learner expects:<br>• fun and spontaneity<br>• playful approaches<br>• pictures, metaphors, overviews<br>• discovery and exploration<br>• quick pace and variety in format<br>• opportunity to experiment. |
| **B-quadrant preference** | **C-quadrant preference** |
| The learner expects:<br>• organised, consistent approach<br>• staying on track and on time<br>• complete subject chunks<br>• a beginning, middle and end<br>• practice and evaluate<br>• practical applications<br>• examples<br>• clear instructions/expectations. | The learner expects:<br>• group discussion<br>• sharing, expressing ideas<br>• feeling-based approach<br>• hands-on learning<br>• personal connection<br>• emotional involvement<br>• user-friendly learning<br>• use of all senses. |

## KOLB'S LEARNING CYCLE MODEL

The work of Kolb (1984) on learning styles complements Herrmann's theory. As we have seen, people learn differently. All facilitators should realise that taking cognisance of the research done on learning styles can make a difference in accommodating learners. In addition to this, it should be the aim of every facilitator to develop the full potential of learners by providing learning opportunities and tasks that challenge learners by

taking them out of their comfort zones or preferred ways of doing.

Knowing more about how learners learn can help facilitators in planning in an innovative way. Knowing how you learn will also help you to be able to monitor your own professional development more effectively. Kolb (in Ellis, 1997) distinguishes between four stages in a learning cycle that he calls **'experiential learning'**. These are shown in Figure 8.4. When we learn in a natural way, we tend to go through different stages to come to an understanding of our experience.

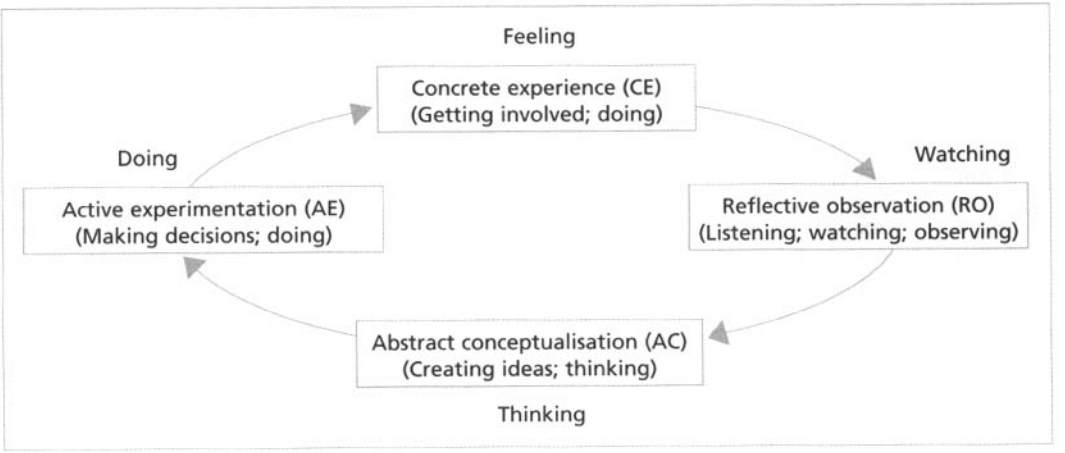


Figure 8.4 Kolb's learning cycle model (adapted from Kolb, 1984)

### Concrete experience (CE)

Personal involvement with people is emphasised. The learner tends to rely more on feelings than on systemic approaches to problems and situations. During this stage the learner would fall back on the ability to be open-minded and to change. This stage is also associated with **learning from feeling.** The following are characteristic of this stage:

- Learning from specific experiences.
- Relating to people.
- Being sensitive to people and their feelings.

### Reflective observation (RO)

Learners understand ideas and situations from different points of view and likewise construct their own meaning. The learner would rely on patience, objectivity and careful judgement but would not necessarily take any action. The learner would use her own thoughts and feelings in forming opinions. This stage is associated with **learning by watching and listening,** which has these characteristics:

- Carefully observing before making judgements.
- Viewing issues from different perspectives.
- Looking for meaning.

### Abstract conceptualisation (AC)

In this stage, learning involves using logic and ideas rather than feelings in problem-solving. The learner would rely on systematic planning and developing theories and ideas to solve problems. This stage, also known as **learning by thinking**, is characterised by the following:

- Logically analysing ideas.
- Systematic planning.
- Acting on an intellectual understanding of a problem.

### Active experimentation (AE)

Active learning forms the core of this stage. The learner actively experiments to influence or change situations. The learner would take a practical approach and be concerned with what genuinely works, as opposed to simply witnessing an event. The learner values being constructive and seeing the results of influence and ingenuity. This stage, also known as **learning by doing**, is characterised by the following:

- Being constructive.
- Taking risks.
- Influencing people and events through action.

### Learning styles

The learners' learning style preferences can be determined by completing Kolb's learning style inventory, which is a simple test that helps learners to understand their strengths and weaknesses. It measures on which of the four learning modes a learner relies the most. No single mode entirely represents the learners' learning styles. This is because each learner's style is a combination of the four basic learning modes. Therefore, learners are often challenged to use a less preferred style in a learning situation.

Understanding the strengths and weaknesses of his learning style type empowers a learner and helps him to achieve the most from learning opportunities. The four learning styles identified by Kolb (1984) can be described as follows:

1 **Accommodator:** This type of learner is also known as the 'enthusiastic learner'. This learner combines steps of **Concrete Experience** and **Active Experimentation**. She has the ability to learn from hands-on experience, and enjoys carrying out plans and involving herself in new and challenging experiences. She tends to act on 'gut' feelings rather

than on logical analysis. In solving problems, she may rely more on people for information than on her own technical analysis. This learning style is important for effectiveness in action-orientated careers such as marketing and sales.

2 **Diverger:** Divergers are also called 'imaginative learners'. **Concrete Experience** and **Reflective Observation** are combined. A learner with this style excels at viewing concrete situations from many different points of view. His approach to situations is to observe rather than take action. He may enjoy situations that call for the generation of a wide range of ideas, as in brainstorming sessions. He likely has broad cultural interests and enjoys gathering information. This imaginative ability and sensitivity to feelings are needed for effectiveness in arts, entertainment and service careers.

3 **Assimilator:** Assimilators are also known as 'logical learners'. The assimilator combines learning steps of **Abstract Conceptualisation** and **Reflective Observation**. This type of learner is best at understanding a wide range of information and putting it into concise, logical form. She is probably less focused on people and more interested in abstract ideas and concepts. She tends to find it more important that a theory has logical soundness than practical value. This style is important for effectiveness in information and science careers.

4 **Converger:** Convergers are also referred to as 'practical learners'. This type of learner combines learning steps of **Abstract Conceptualisation** and **Active Experimentation**. A learner with this style is best at finalising practical uses for ideas and theories. He has the ability to solve problems and make decisions based on finding solutions to questions or problems. He would rather deal with technical tasks and problems than with social and interpersonal issues. These learning skills are important for effectiveness in specialist and technology careers.

With regard to effective learning, it is extremely important for the learner to become flexible in her learning preferences and problem-solving skills. Depending on the nature of a learning task, she might need to adapt her learning style for learning more effectively. The independent learner who is aware of her learning style and who is able to monitor her own learning processes will be sensitive to improving her learning skills. The facilitator is also responsible for providing learners with the opportunity to become flexible. In this regard, certain strategies can be followed.

*Strategy of developing supportive relationships*

This is an easy way to improve learning skills. Learners should be made aware of their own learning style strengths, and they should build on these.

Learners should also be sensitised to valuing other learners' learning styles. They must realise that they do not have to solve problems alone. Thus, cooperative learning is a powerful tool to be used by the facilitator for helping learners to improve in this regard. Working with others increases learning power. Although learners may be drawn to other learners who have similar learning preferences, they will learn more and experience the learning cycle better with peers who have opposite learning preferences.

If a learner has an abstract learning style, such as a converger, the facilitator could help him to communicate ideas more effectively by providing opportunities for him to associate with learners who are more concrete and people orientated, such as divergers. A learner with a more reflective style, such as an assimilator, can benefit from learning opportunities in which she has to observe the risk-taking and active experimentation of a more active learner, such as an accommodator.

*Strategy of becoming a flexible learner*

Learners can become flexible by strengthening their weak learning skills. Flexible learning implies that a learner will be able to cope with problems of different kinds, and will be able to adapt, depending on the task at hand.

It is the responsibility of the facilitator to plan for different types of learning opportunities that will challenge learners to learn in ways they would naturally avoid. Figure 8.5 illustrates how different types of learners could be accommodated by means of different types of learning opportunities.

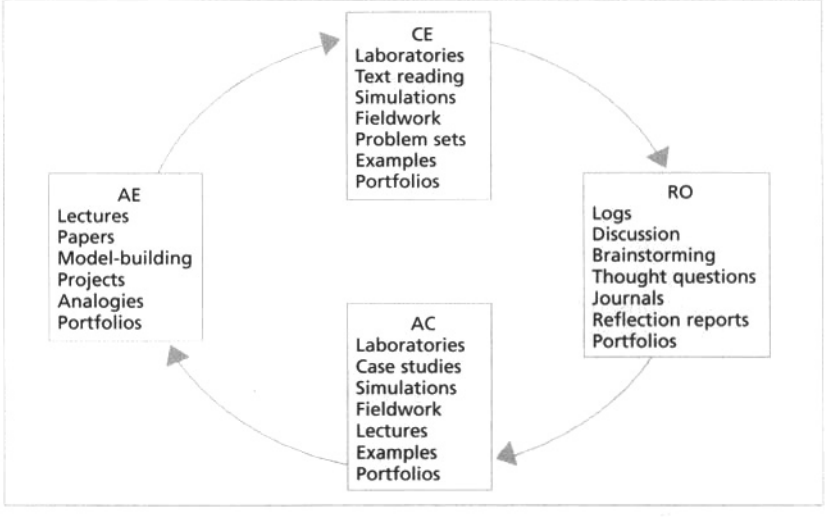


Figure 8.5 Learning and assessment opportunities complementing Kolb's learning styles (adapted from Kolb, 1984)

Table 8.3 summarises the learning profile characteristics that are applicable.

Table 8.3 Learning profile characteristics

| Learning style | Characteristics |
|---|---|
| **Accommodator** | • Gets involved with lots of new activities; is a good starter<br>• Operates through trial and error, on 'gut' feeling<br>• Obtains others' opinions, feelings, information; depends on these<br>• Involves and inspires other people<br>• Seeks new experiences<br>• Likes risks, excitement, change, incentives<br>• Dislikes routine<br>• Adapts well to new situations<br>• Is willing to try; jumps in<br>• Can be impulsive<br>• Likes learning with people through projects, discussion, 'doing' |
| **Diverger** | • Sees many alternatives in the whole picture (gestalt)<br>• Uses imagination<br>• Creates with emotions; has an aesthetic interest<br>• Orientated towards relationships with people; is supportive<br>• Listens; observes; asks questions<br>• Can model behaviour<br>• Is good at imagining self in different situations<br>• Is unhurried, casual, calm, friendly; avoids conflict<br>• Regards timing as important; will not be rushed<br>• Likes assurance from others<br>• Learns by listening, then sharing ideas with small number of people or by modelling |
| **Assimilator** | • Is a good theory builder; planner<br>• Puts ideas together to form a new model<br>• Is a good synthesiser<br>• Is precise, thorough, careful<br>• Is organised; follows a plan<br>• Redesigns; retests; digests<br>• Calculates the probabilities<br>• Reacts slowly; wants facts<br>• Works independently; thinks; reads<br>• Avoids over-involvement<br>• Pushes mind; analyses ideas; critiques<br>• Is rational, logical<br>• Learns by individually thinking through ideas and designing a plan or model in an organised way |

| | |
|---|---|
| **Converger** | • Applies ideas to solving problems<br>• Makes theories useful<br>• Has detective skills; searches and solves<br>• Tests hypotheses objectively<br>• Is unemotional<br>• Uses reason, logic to meet goods; takes action<br>• Speculates on alternatives<br>• Likes to be in control of a situation<br>• Sets up projects, pilots with research<br>• Acts independently, then obtains feedback<br>• Uses factual data, books, theories<br>• Is responsible; takes action on tasks<br>• Learns by working at probabilities and testing them, then coming to conclusions |

In becoming a flexible learner, as previously indicated, the learner has the responsibility of expanding his repertoire by practising specific skills. Likewise, the facilitator has the responsibility of providing the opportunities for the practice of those skills. Table 8.4 summarises some ideas of what should be done by learners to practise different skills that do not form part of their repertoire.

Table 8.4 Learning style skills

| Learning style to be developed | What the learner should practise |
|---|---|
| **Accommodator** | Being sensitive to people's feelings<br>Being sensitive to values<br>Listening with an open mind<br>Gathering information<br>Imagining the implications of uncertain situations |
| **Diverger** | Committing herself to objectives<br>Seeking new opportunities<br>Influencing and leading others<br>Being personally involved<br>Dealing with people |
| **Assimilator** | Organising information<br>Building conceptual models<br>Testing theories and ideas<br>Designing experiments<br>Analysing quantitative data |

| | |
|---|---|
| **Converger** | Creating new ways of thinking and doing<br>Experimenting with new ideas<br>Choosing the best solution<br>Setting goals<br>Making decisions |

## CONCLUSION

The similarity between the learning style theories of Herrmann (1995) and Kolb (1984; in Ellis, 1997) is indicative of the notion that all such theories could be related to the theory of multiple intelligences. The facilitator should keep in mind that learners have their own preferences, and that these are different to the facilitator's. For learning opportunities to be effective, on the one hand the facilitator should accommodate the learner according to his preferred learning style. On the other hand, the facilitator should not allow learners to learn only according to what could be explained as their comfort zone – rather, learners should be challenged to learn outside of this comfort zone.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 To develop a learner's intelligences, how would you set about designing a learning opportunity in a specific learning area, or an intervention?
2 Make a list of learning opportunities for a specific learning area, or a series of interventions that would fit each of the quadrants in Herrmann's whole-brain model. How would you assess the learning in a complementary way?
3 What are the consequences for learning if the facilitator has a preference for A- and B-quadrant learning, and the learner has a preference for C- and D-quadrant learning?
4 For a group of learners, design a learning cycle of different learning opportunities for a specific learning area, or a series of interventions, according to Kolb's theory.

## VOICES

Since the theory of whole-brain learning has been introduced to me two years ago, I realised that I need to become flexible in my learning styles in order to adapt to the demands of the task at hand. I have also learned what the significance of whole-brain learning is in family life.

– Grade 9 learner, Gauteng

Whole-brain learning makes a lot of sense for the application of outcomes-based principles in my Biology class. It also helps me in mentoring the student-teachers I am responsible for.

– Mentor teacher, Gauteng

## APPLICATION STRATEGY

Apply learning style flexibility to all aspects of the teaching practice. Make sure that the curriculum allows for such flexibility – as implied in the critical cross-field outcomes. Apply the principles of learning style flexibility when facilitating learning and when assessing students.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 How would you describe your own style of learning?
2 Did you provide for learning style flexibility in your practice in the past?
3 How would you make provision for learning style flexibility in your practice regarding facilitating of learning?
4 How would you change your assessment practice in order to provide for learning style flexibility?

## TEN FACTS ABOUT LEARNING STYLES

1 It goes against the way people act to reduce their capacity to only two intelligences, namely linguistic and logical-mathematical intelligences, as was done in the past.
2 Intelligence is now recognised as much more diverse a phenomenon that represents all facets of human behaviour.
3 All learners have strengths in terms of the various intelligences.
4 All learners have different preferences in terms of how they learn.
5 Learners' preferences regarding learning are closely linked to their strengths regarding the array of intelligences.
6 Education practitioners also have a preference in terms of the way in which they learn and solve problems.
7 The practitioner's learning style influences her teaching style.
8 The practitioner's teaching style influences all roles he must fulfil.
9 Although learners should be accommodated according to their preferred style of learning, they should also be challenged to work outside of this 'comfort zone' to reach their full potential.
10 Education practitioners should become flexible in order to help their learners to become flexible.

## SUGGESTED READINGS

Ellis, D (1997). *Becoming a master student.* Massachusetts: Houghton Mifflin.

In a more practical, user-friendly way than Kolb, Ellis applies the principles of Kolb's theory. This book provides excellent complementary reading.

Gardner, H (1993). *Multiple intelligences: The theory in practice.* New York: Basic Books.

Any book by Gardner on his multiple intelligences theory offers excellent reading material. This particular book provides convincing material that would urge any education practitioner to become more innovative in practice.

Herrmann, N (1995). *The creative brain* 2nd edition. USA: Quebor Printing Book Group.

For a thorough understanding of Herrmann's theory on whole-brain learning, this book gives an excellent overview. It allows the reader to read beyond any restricting context of learning to explore the possibilities of applying the principles of whole-brain learning as a lifeskill in all spheres of life.

Kolb, DA (1984). *Experiential learning.* Englewood Cliffs: Prentice Hall.

This book provides an overview of the author's entire learning style theory.

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PART THREE

# Social Context

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# Families

Mokgadi Moletsane

## INTRODUCTION

The definition of the concept of **family** is extremely broad. People define families differently, depending on their culture and the time in which they live. The various meanings of families are defined in this chapter, and different forms of families, family expectations and needs are discussed. Several factors that contribute to the child's development and learning, parenting styles and models, the existence of the special child in a family as well as the educational psychological intervention with regard to parental guidance are also highlighted herein.

The family is a social institution that, in Western countries, is based on the organised and legally determined unit of father, mother and child. It differs in form depending on cultural circumstances. In our society the most important function of the family is to ensure the education and socialisation of the child according to the norms that most people in society obey. It is in the family that the child learns the habits and traditions of his group. By identifying with his parents, the child's personality and character are formed (Pretorius & Le Roux, 1998).

## FORMS OF FAMILIES

The word 'family' has an indefinitely large set of meanings. The definition, forms and characteristics of families have changed tremendously over time. Today, two people of the same sex can marry and start a family; a century ago, such a situation would have been taboo.

The United States Census (in Lasswell & Lasswell, 1991) defines a family as a group of two persons or more (one of whom is the householder) related by birth, marriage or adoption and living together; all such persons (including subfamily members) are considered members of one family. Different societies have various types of families, but none is without some form of familial pattern – often called a 'kinship system' – which provides for committed relationships between men and women, and between parents and children.

Characteristics seen in all kinship systems, according to Markson and Stein (1985), are:

- **The amount of spouses and individuals permitted at one time:** In some societies only one is permitted (**monogamy**), whereas in others more than one is permitted (**polygamy**). In certain societies only men may have more than one partner (**polygyny**), and in others only women may have more than one spouse (**polyandry**).
- **The identity of the couple:** In some societies someone other than the couple themselves makes the selection of marriage partners. A parent, or a broker chosen by the family members, can select the suitable partner.

- **The transmission of lineage and family property:** If the form, or type of family, is made through males, the family is considered **patrilineal**, through females it is **matrilineal** and through both parents it is **bilineal**. Historically the **patrilineal** was the most common pattern, probably because men were considered to be heads of households and authority figures in the families. As a result, it was appropriate that the property belonged to men rather than women.

A couple can live with the husband's family (**patrilocal**) or with the wife's family (**matrilocal**), or apart from their families of origin in a new location (**neolocal**). When couples live with either partner's kin, the pattern is called an '**extended family**'. Those who live by themselves with only their own children present, apart from their families of origin, form a **nuclear family**.

In most societies some form of **patriarchy** prevails (for example, traditional African families where husbands are authoritative figures). By contrast, in countries such as the USA, families are more likely to be **equalitarian**, which means that power differences are not institutionalised as firmly as in the past or as in certain other societies. Power differences are likely to be less marked between husbands and wives, and between parents and children.

**Equalitarian couples:** Couples whose beliefs about gender call for similar and shared work-family roles.

Family forms change with time. Owing to HIV/AIDS, the concept of family is changing in many societies. For example, in Africa numerous children have a single parent as the other parent has died of AIDS. In other cases, both parents have died and the children are orphaned. Extended families who used to be the pillars of African societies are faced with change. Many relatives hesitate to take charge of the HIV orphans because they fear that the orphans may be infected also, and that on the one hand the orphans will infect their own family, and on the other hand the orphans will demand a lot of attention and medical care.

This situation is common in Africa and has led to another form of family, called the '**child-headed family**'. In these families, children take care of their siblings without adult supervision. In some cases, children as young as eight cook, fetch and carry water from the communal tap and bathe their younger sisters and brothers every day. Forced to take on adult responsibilities at such a young age, these children lose their own childhood.

## FAMILY FACTORS CONTRIBUTING TO CHILD LEARNING

### Socio-economic status

Many studies have shown that parental socio-economic status and education levels are extremely predictive of children's developmental and

academic outcomes, and even their educational and occupational attainments as adults.

> A study performed on the island of Kauai, Hawaii, followed every child born in 1955 until the age of 32. It found, for example, that the effect of socio-economic status is more powerful than the effects of perinatal complications. By twenty months of age, children who had experienced the most severe perinatal complications, but who grew up in upper middle-income homes, had intelligence levels nearly equal to those of children who had experienced no perinatal stress but were living in lower level socio-economic homes. By the age of ten, the former children had above-average IQs. The children from low income homes who had experienced severe perinatal complications remained significantly delayed with regard to development of intelligence, language, perceptual, reading and social skills (Smith, 1998).

According to Berk (1997), harsh life conditions of lower income parents, the powerlessness they feel and lack of influence they have in their job, the authoritarian model presented by employers and their lack of higher education that would refocus values onto abstract ideas, may result in such parents using authoritarian methods of enforcing **external characteristics** in their children such as obedience, neatness and cleanliness. In contrast, higher income parents tend to value **internal characteristics** such as curiosity, happiness and self-control, which they encourage in their children through verbal praise, explanation and mutual problem-solving. These variations in child rearing set different educational paths. The more the child's environment promotes intellectual stimulation, feelings of personal value and control, the more likely she is to overcome the effects of a poor start in life.

### Parent-child interaction

Homes in which parents are alcoholic, abusive to children or absent for long periods of time are detrimental to children's intellectual, academic and socio-emotional development. A lack of parental interaction can also deter child development. By contrast, a positive, stable, stimulating and supportive relationship with adults can render children resilient to the effects of a negative environment.

A study conducted by Matheny, Wilson and Thoben (1987) concluded that, other things being equal, children growing up in homes characterised by noise and confusion developed more difficult temperaments. A parenting style that consists of many commands, requests, directions and instructions is associated with slower vocabulary acquisition in the child. Preschoolers whose parents' communications tend to be prohibitions, such as 'stop that' and 'don't do that', rather than responses to child initiations, such as asking questions, repeating, paraphrasing and extending their children's statements, have lower IQs.

Parents who are less involved with their children; who communicate lower expectations; who do not monitor how constructively their children's time is spent, nor set clear and consistent limits; and who are least accepting, nurturing, encouraging, involved in school work and emotionally responsive to the needs of their children tend to have children with the most academic difficulties.

Parent-child interaction is a two-way process. The relationship can be hampered by the characteristics of the child, and not only the parent. For instance, if a child suffers from a damaged central nervous system, his body movements – which constitute early non-verbal communication between himself and his mother – could be disrupted. This in turn could reduce the optimal parental stimulation for cognitive and social development.

Appropriate parenting can do much to make up for a poor start in life, and for the correlates of poverty. Teachers must be sensitive to the parents' circumstances. They must provide parents with information on how to interact with their children more productively. This may be as simple as suggesting that parents talk more with their children, use different words and take turns in play because these actions relate to higher intelligence in preschoolers.

### Physical surroundings

The availability of books, magazines, learning supplies and other related aspects of a child's physical learning environment affects the child's success in school. For example, a child who grows up in a family where reading and writing materials are in abundance, and where the parents actually make use of these materials, tends to develop an equal enthusiasm for reading and writing.

Poverty-stricken families can ill afford resources for their children such as educational toys, and writing and reading materials. A child who

lives in such an environment, or in a family where the parents read or write poorly, will lack cognitive stimulation and interest in schoolwork.

### Identification and modelling

Children learn the concepts of right and wrong from their parents. As the first teachers of their children, parents should behave in an exemplary way – their children copy and learn from them. When the parents are successful, children want to be like them. For instance, a child may resist the temptation to lie because she recalls her parents' example in a similar situation and fears the loss of her parents' respect if she does not do the right thing. The processes of identification and modelling should be fostered by warmth and support on the part of parents, which in turn foster in their children such prosocial traits as kindness, honesty, generosity, resistance to cheating and lying, obedience to rules and consideration of the rights and welfare of others.

In order for parents to promote modelling of appropriate behaviours, they must not only have a favourable attitude toward their child but also should attract the child's attention to the processing of modelled behaviour. This can be done through overt or covert verbal rehearsal, encouragement of actual practice of the behaviour and provision of incentives for adopting this behaviour. Parents can deliberately use these processes to influence their children, although most often they do so unconsciously.

Parents of children with special needs may need to explain matters further, highlight important aspects, help the child verbally rehearse and role-play what has been said, and provide support when problems arise with regard to information processing or motivation.

### Imitation

Children like to imitate their parent, peers, other adults in the community and media figures (Lasswell & Lasswell, 1991). They observe more carefully than adults realise. They adopt one behaviour, action or gesture from one source and another from another source, mixing and matching until they form a style of their own. When playing, children frequently pretend to be, for example, the scolding aunt, the loving mother, the busy father.

Punishment and reward have an effect on children's behaviour. When a child observes another whose actions are rewarded or punished, he is more likely to imitate the person who receives rewards. He is also most likely to imitate those with whom he has positive relationships.

Children are aware of which parent in the family has the power to reward and punish, and are more likely to imitate that adult than the one

who seems to have less power. Parents who are regarded by their children as powerful, warm and caring are more likely to be imitated by their children.

### Gender role

Children tend to imitate those with whom they feel they have something in common. One of the influential similarities appears to be sameness of gender – put simply, boys tend to imitate their fathers and girls tend to imitate their mothers. Parental attitudes and treatment of children are more often closely related to children's learning of masculine or feminine traits than the actual masculine or feminine behaviours of the parents whom the children imitate.

Boys whose fathers are absent sometimes identify more with their mothers or have a confused gender-role identity, unless there has been another male adult with whom he can identify.

Studies conducted by Hetherington (in Lasswell & Lasswell, 1991) show that girls are less affected by father absence in their early years than boys. However, the effects appear in adolescence when such girls display attitudes towards males that differ from girls whose fathers have been present. For example, girls whose fathers were absent as a result of divorce sought more attention and praise from males and were more often described as 'boy crazy', while girls whose fathers had died tended to avoid males altogether. The presence of parents in the home and their gender-role definitions and behaviours are thus seen as crucial to the way children learn to behave.

### Direct training

Direct training through teaching and discipline is another way in which parents instil desired attitudes and behaviours in their children. Threats of punishment or corporal punishment are less effective than reasonable explanations about why the child should behave in a certain way. Positive reinforcement, and flexibility that balances adult needs with child needs, are important for maximising children's social and emotional development.

According to Smith (1998), Baumrind investigated child-rearing practices among parents of middle socio-economic status. Three general patterns emerged from the study:

1 **Authoritative** parents were controlling and demanding. They made high demands for obedience, academic achievement and sharing in household tasks. They were also warm and open to discussing a child's reasons for not wanting to comply, and they responded positively to the child's independent behaviour.

2 **Authoritarian** parents were more punitive and rejecting. They also had high standards for behaviour, but these tended to be absolute, inflexible. Power measures, unaccompanied by reasoning and communication, were used to establish compliance, which they valued for its own sake. There was little verbal negotiation with their children.
3 **Permissive** parents were extremely accepting of all their children's impulses and did not enforce rules or standards for conduct and achievement.

According to the study, there was a correlation between parental authoritative patterns and children's behaviours that showed the children as socially responsible, independent, friendly to peers, cooperative, achievement-orientated, dominant and purposeful. Authoritative parents who also valued non-conformity produced the most dominant and purposeful children in the study. In contrast, children of authoritarian parents tended to be unhappy, withdrawn and distrustful. Children of permissive parents were the least self-reliant, self-controlled and explorative.

Several adult practices and attitudes that facilitated the development of socially responsible, assertive, cooperative, purposeful, confident, altruistic, creative, cognitively challenging and independent children, according to Baumrind (in Smith, 1998), are:

- adult modelling of socially responsible and self-assertive behaviour, especially if the adult is seen as powerful and a strong support or advocate for the child
- firm enforcement policies that reward socially responsible behaviour, punish deviant behaviour and are accompanied by explanations consistent with the parents' principles
- accepting but not overprotective or passive-acceptant parental attitudes, and approval that is conditional on the child's behaviour
- a high demand for the achievement of and conformity with parental policies, accompanied by openness to the child's rationale and encouragement of independent judgement
- provision of a complex, stimulating environment that offers challenge and excitement as well as security.

We can add a fourth child-rearing practice to the discussion: **democratic parenting**, according to Pretorius and Le Roux (1998), is characterised by warmth as well as permissivity. Thus this practice combines some features of Baumrind's authoritarian and permissive patterns.

## HIV/AIDS families

HIV/AIDS is causing an unprecedented threat to the well-being and safety of children today. A child's vulnerability begins to increase before a parent dies. The common impacts include deepening poverty, pressure to drop out of school (to instead attend to the needs of the family), food insecurity, reduced access to health services, deteriorating housing, loss of parental love and care, and the necessity of spreading siblings among relatives to share the economic burden of their care. Psychological distress also greatly affects children and families. Such distress involves anxiety, depression and grief.

The death of a parent causes greater problems, such as funeral costs, which consume much-needed financial resources. Following the deaths of both parents, siblings are often divided among several households within the extended family. Some children become heads of households, while others leave the destitute households to fend for themselves on the street.

HIV/AIDS is every person's problem. The communities, private sector, NGOs and government should work hand in hand to secure the future of the children, especially AIDS orphans.

## Parental guidance: Educational psychological perspective

Parent-child interaction is extremely important with regard to the development of the child. Parents who are absent from home deprive their children of the valuable opportunity for interaction. This can deter the child's development and learning.

Children who grow up in families where parents read and write tend to develop a love of reading and writing as well. Poverty-stricken families have few resources. However, parents in such families do not need to buy expensive toys and educational games to stimulate their children cognitively – freely available material, such as old newspapers, old magazines, discarded empty boxes of food such as biscuits and oats, and the advertising boards that are tied to street poles, can be used for reading, writing and spelling.

Parents who cannot read can play competitive and non-competitive games with their children in order to stimulate their thinking and emotions. Traditional games such as *masekitlana* for socialisation, self-expression and language enrichment, as well as *diketo* for counting, should be encouraged, especially if parents cannot afford to buy educational toys for their children. These can also build their children's language skills, self-esteem and social development.

***Masekitlana:***
A traditional South African game that is usually played by distressed children. The children express themselves verbally while playing with small stones. It is not a competitive game; it rather develops children's communication and coping skills, and serves as a therapeutic tool.

***Diketo:***
A traditional South African game for counting. Players are required to add, subtract, multiply and divide small stones. At the end of each round there is a winner. It is therefore a competitive game.

## MODELS OF PARENTING

Parents play a crucial role in children's lives. Children imitate their parents and regard them as role models. The success of parenting depends on the models used by parents. LeMaters and DeFrain (in Lasswell & Lasswell, 1991) put forward the models of parenting that we will now discuss.

### Martyr model

Parents using this model make sacrifices for their children and often seem to feel that they must compensate for what was lacking in their own childhoods. Such parents are often protective, regarding it as their duty to provide a 'safe world' for the children. They tend to exhibit guilt about not doing enough for their children. For example, a mother who was not employed outside the home while her children were small may suffer guilt when she decides to go back to school or to take a job for her own sake. Children often resent parents who are overprotective, yet feel angry when the parent's availability is lessened. Some children rebel and break out of the overprotective environment (often a healthy action), whereas others remain trapped and handicapped by that environment.

### Buddy or pal model

Parents using this model endeavour to blur the age gap between the generations by attempting either to become a part of the child's world (through acting as if they are closer to the age of the child) or to make the child grow up (too) quickly and become an adult. Research suggests that early marriages and young parenthood may have helped this model to develop. Many young parents and their children appear to be growing up together. When the children reach adolescence, their parents are still young and may have trouble conceptualising themselves as the parents of teenagers.

### Police or drill sergeant model

Autocratic parents use this model. They often appear more interested in the rules than in the children themselves. Such parents experience problems when their children reach adolescence because teenagers are often ingenious in finding ways to avoid both their parents and the rules. Only when they also provide abundant warmth and love are such parents likely to succeed beyond the first few years of parenting. Sometimes a 'benevolent dictatorship' can be developed in which parents are strict and controlling but tolerated by their children because the children feel loved as well as controlled, and believe that the parents have their best interests at heart.

### Teacher-counsellor model

In this type of parenting model, the children's needs are seen as paramount, within the tolerance limits of the family system. Parents present themselves as experts. They participate in new techniques, read the latest books on child psychology and involve themselves in most aspects of their children's lives. Certain parents feel anxious about making mistakes in their parenting and feel guilty when they unintentionally do.

### Athletic coach model

Parents using this model exhibit a good balance of cooperation, assertiveness and concern for each member of the family 'team'. This model involves being fit, knowing the rules, mastering skills and developing self-discipline. It is important for everyone involved to realise that the coach cannot play the game for the players. In other words, the parents cannot live their children's lives, but they can provide guidance, instructions and emergency aid. The difficulty here is that life is not as simple as a game of sport. Coaches can select and replace players; parents do not have this option – their 'players' (their children) cannot be replaced.

## FAMILY DISCIPLINE, COOPERATION AND COMMUNICATION

### Discipline

Children who come from families which do not exercise control often fare poorly. A loving, supportive and secure home is more effective in positively shaping children's characters than any single style of discipline. Discipline does not need to be harsh to be effective. From the review of the research on punishment (Baumrind, in Lasswell & Lasswell, 1991), the following facts emerge:

- Punishment is most effective when it is closely associated in time with the undesired behaviour.
- Punishment should be accompanied by an explanation of why the behaviour is wrong, and alternate behaviour should be offered so that the child can be redirected.
- The punishment should 'fit the crime' as much as possible, so that the child makes an association between the incorrect act and the punishment.

Children who come from homes that are predominantly supportive and positive require punishment infrequently because they voluntarily conform more often to their parents' wishes. They also require less severe punishment because they are more sensitive to their parents' displeasure and respond to milder sanctions.

Fatigue and stress often cause parents to behave in ways that may harm their children. Moreover, many parents resort to physical punishment because their own parents practised it on them. The disadvantage with physical punishment is that it is usually delivered in anger and exasperation, which can make it disproportionate. For example, a naughty child may receive a slap from a parent who is tired and stressed when instead the incorrect behaviour merely required a verbal reprimand.

### Cooperation

'Parental coalition' describes parents who stand unified and do not allow children to play one parent against the other. Some parents are unable to form a coalition because of mutual emotional conflict. Children may take advantage of a relationship between parents that is fragile or strained. Parents can unconsciously accentuate the family tension, and children may side with the parent who can benefit them the most.

### Communication

A family is an interacting communication network in which every member influences the nature of the system and, in turn, is influenced by it. Communication occurs in levels: the first level is the content, and deeper levels involve tone of voice, body movements, inflections, emphasis, speed of communication and other non-verbal behaviours that give clues to various implications of the interchange.

Each family develops its own rules of communication. In some families, only positive comments can be voiced and only positive feelings may be expressed. An angry child would be banished to her room or made to feel guilty for such emotion. No space is allowed for negative feelings, which seems advantageous, but on closer examination it becomes evident that the family ceases to be a place where members can have their emotional needs (positive *and* negative) met.

Successful families foster an environment of growth in all dimensions of their members. Clear, open communication allows both children and parents to understand, support and encourage each other to grow.

### Parental guidance: Educational psychological perspective

Children are good imitators of their parents. Parents should therefore behave in an appropriate manner so that children can imitate the positive. Discipline, cooperation and communication in families are vital. When punishing children, parents should explain

why the punishment is being given. Punishment should have its source in love and should suit the type of error committed.

## SPECIAL CHILDREN

### Family reactions

When they decide to marry and have children, people form different pictures of their ideal families. Some people imagine a husband and wife who are married for several years before the wife falls pregnant on purpose and gives birth to their own child. But the parent-child relationship can also begin in many other ways – with a single parent of either gender, with homosexual parents, with parents in their late forties, with an unplanned pregnancy or with an adopted child.

Parents sometimes form mental pictures of the new family long before the first child is born or adopted. By the time the event has occurred, a process called '**idealisation**' may have begun. This process includes not only thoughts about the physical appearance of the child, but also assumptions about the child's intelligence, health, attitude and even performance later in life. At times, children admire their friend's families, and as they grow older they likewise form idealised images of their own parents. Most people do not picture themselves having a child with special needs. They are also not aware of their own attitudes about special children until they have an opportunity to interact with a family that has a special child or they have one themselves.

**Idealisation:** Seeing loved ones as extraordinary, remarkable and unique.

Parents' visions tend to be based on what they know and see around them; these are visions based on their own hopes and dreams. The visions do not usually include special need children. Parents of children with special needs discover their children's condition in different ways and at various times. Some families learn their child's diagnosis early in the child's life, whether at birth or a little later. Other families struggle for many years to find a diagnosis. This is because some illnesses or conditions are well documented, but others are yet to be discovered. Despite the differences in each family's situation, many of the feelings that they experience are the same, for instance shock, denial, anger, sadness, guilt, confusion and loneliness, but also hope, peace and love. As bearers of bad news, the school personnel, family physician, psychologists, physiotherapists and other professionals at times

become objects of the parents' anger, but they also can provide much needed support and assistance.

### Parental guidance: Educational psychological perspective

**Common family reactions to their special child (also see Figure 9.1)**

- **Regret at losing the dream:** In facing the situation of having a special child, parents grieve the loss of the near-perfect child they dreamt about. They regret losing the dream. An intense emotional period comes with this loss; although painful, it does help parents to cope.
- **Shock and panic:** Many parents experience shock in general. In particular, they cry and scream, or feel numb or removed from the newly discovered reality. They also panic because they feel unable to cope with, or take proper care of, the child.
- **Denial:** This is one of the first reactions that parents have. Some parents deny that they are in this situation; they may refuse to talk about it. Other parents keep busy with other activities and responsibilities, thus giving themselves little time to focus on the painful challenges.
- **Sadness and depression:** Depression can accompany the parents' sadness. This manifests physically as exhaustion, tension and general unease. Shortness of breath also tends to occur. Parents may be frightened and sad, and feel unable to identify a means of helping their child.
- **Fear:** People fear the unknown. Parents worry that their child's problem will be worse than they imagine, until the diagnosis becomes clear. They fear that their child may not attend school with her peers or that her development as compared to her peers will be delayed. Parents fear that the child's condition requires many resources that they do not have, and that they could not provide sufficient support for the child while they are at work.
- **Anger:** This is the most difficult emotion – it can be so intense that it harms anyone within reach, including medical personnel, spouses, other children, friends and co-workers. In anger, people tend to search for reasons to blame others, and others are least likely to accept anger in a person. Parents who are angry as a result of their inability to deal with the challenges of their special child risk being rejected, rather than supported, by the people around them.

- **Anxiety:** A child with special needs requires parents and other family members to make changes within themselves to meet the needs of the new environment. Attitudes, priorities, beliefs, values and daily routines must undergo significant adaptation. Such change requires energy.
- **Guilt:** The causes of a mental disability are not always clear. Parents of a child with special needs cannot always understand the reasons underlying the situation. As they search for answers, parents may wonder whether they have done something to cause the problem.
- **Acceptance:** Despite the common responses to this situation, parents do not experience the emotions in the same way. Some may be familiar with each emotion, whereas others will be able to identify only one or two. Some experience intense reactions, others do not. There is no right or wrong response, and the path through these experiences is unique to each parent. Parents who share their experiences will realise that their reactions are normal and common. With time, and the support of professionals such as educational psychologists, these parents can come to acknowledge their feelings, develop coping skills, and finally accept and love their special child unconditionally.

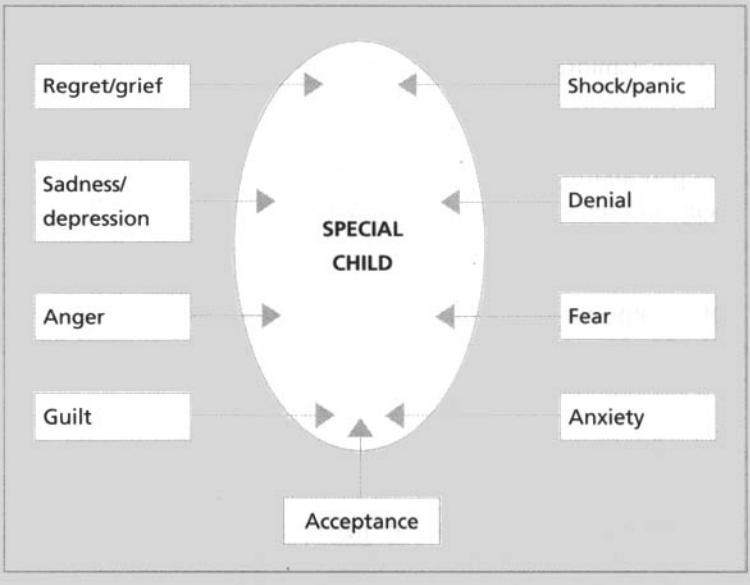


Figure 9.1 Common reactions to a special child

## NEEDS TO BE MET BY FAMILIES

### Emotional needs

The intimacy of the living environment that parents share with their children implies that parents have a unique opportunity to give their children unconditional love. Because children carry these early messages regarding their value and self-worth with them throughout their lives, the role parents play in providing such affection and nurturing is pivotal.

### Social needs

The social relationships that people enjoy have their source in relationships within the family. Thus, the interaction of parents and children is crucial. Parents teach children how to talk, listen and share; how and when to express feelings; how to be polite; and so forth. Within the family children have the opportunity to learn about and practise social skills that they will use in life's countless interactions.

### Financial needs

Each and every family needs money to address the basic need for food, shelter and clothing.

### Daily care needs

Families' daily care and other needs include cooking, cleaning, transporting family members to various places, obtaining necessary medical attention, and so forth. Children need their parents' attention, care and guidance.

### Educational needs

Families play an important role in the education of their children. Parents are their children's first teachers and the home is the children's first school. Children enter the world with certain potentials; it is how they learn in their first school – that is, the home – that will most affect their ultimate cognitive development. Throughout their children's lives, parents serve as models for behaviour and stimulate their children to interact with the world.

### Parental guidance: Educational psychological perspective

All children, including special needs children and HIV/Aids-affected and -infected children, deserve to be cared for and loved unconditionally. Children are our leaders of the future – they must

be taken seriously. The most important and challenging tasks for families are to prepare each family member for the future and to ensure that they have every opportunity to succeed and enjoy life as adults.

## CONCLUSION

Home is the child's first school, and parents are the child's first teachers. The interaction between genetic and environmental factors is instrumental in shaping the child's intellectual capacity. Parents play a significant role in this process – they are the first adults that the child knows and thus are his role models.

When starting a family, people have high expectations of their unborn children. They do not always consider the possibility of a child with special needs. All children, including those with special needs, have potential that must be explored and nurtured. As foundation builders, parents should accommodate their children and help them to identify and strengthen their abilities.

Effective initiatives to increase primary education access for HIV/AIDS orphans and other vulnerable children should be seriously considered. Successful initiatives will need to capitalise on community strengths and equip children with critical learning skills, while taking into consideration their need for security, stability, personal growth and development.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 Which family factors contribute towards child development and learning?
2 How would you describe educational psychological parental guidance with regard to family reactions towards their special child?

## VOICES

You can see and hear what is happening in families just by listening to the children in your class.

– Grade 1 teacher, Free State

I struggle when my daughter does not seem to listen to me. I am intending to look for professional help.

– Mother of six-year-old girl

## APPLICATION STRATEGIES

The strategies are as follows:

- Combine punishment with explanation about *why* the behaviour is wrong.
- View families as dynamic, holistic units.
- Remember that parents themselves are products of their own families of origin.
- Take note of your own parenting style and be conscious of the effects that it has in your family. Adapt your style accordingly.
- Enlist the support of your broader support network if you have a child with special needs.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 After reading this chapter how do I view educational psychological parental guidance with regard to discipline?
2 What needs do I think should be met by families?
3 Have my views of the family reactions towards the discovery of a special child changed since I read this chapter? If so, how?

## TEN FACTS ABOUT FAMILIES

1 Parents are the child's first teachers and the home is the child's first school.
2 Parent-child interaction is a two-way process.
3 Parental coalition is the concept that describes parents who put up a unified front and do not allow children to play one parent against the other.
4 A family is an interacting communications network in which every member influences the nature of the entire system and in turn is influenced by it.
5 Children imitate their parents and regard the parents as role models.
6 In coping with the reality of having a special needs child, many parents mourn the loss of an ideal concept they had envisioned of their child.
7 The care of a child requires the participation and cooperation of the entire family.
8 Educational psychological intervention with regard to special needs children and parental guidance is important.
9 Owing to the HIV/Aids pandemic – something that affects the entire world – the concept of family is changing in some societies.
10 The intimacy of the living environment that parents share with their children implies that parents have a unique opportunity to love their children unconditionally.

## SUGGESTED READINGS

Lasswell, M and Lasswell, T (1991). *Marriage and the family* 3rd edition. California: Wadsworth.

This book explores marriage and families. A useful quote from the text: 'Children are great imitators of parents, adults in the community, and media figures. They observe much more closely and carefully than adults may realize. They adopt a bit from one source and bit from another, mixing and matching until they form a style of their own. Children are more likely to imitate behaviour that is rewarded and to avoid behaviour that elicits punishment' (Lasswell & Lasswell, 1991: 39).

Santelli, B; Poyadue, FS and Young, JL (2001). *The parent to parent handbook. Connecting families of children with special needs.* Maryland: Paul H Brookes Publishing.

This book focuses specifically on families of children with special needs. A useful quote from the text: 'Preparing each family member for the future is another important function that families have, and families work hard to ensure that their family members have every opportunity to succeed and enjoy life as adult members of society. This is a challenging role for any family but one that may be even more challenging is when a child has special needs' (Santelli et al., 2001: 3).

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# Group Work

Brigitte Smit

## INTRODUCTION

**Social facilitation:** This occurs when an individual's work or performance is enhanced by the presence and input of other people. Closely linked is the fact that the most popular reasons for joining a group are related to needs of security, status, self-esteem, affiliation, power and goal achievement (Maslow, 1954; Wittig, 2002).

Drawing on an interdisciplinary approach to groups that has its source in Social and Industrial Psychology (Hallam, Blatchford & May, 1994; Sternberg, 1995; De Corte & Weinert, 1996; Baron & Byrne, 2000; Wittig, 2002), this chapter is generated by the author's personal experiences in secondary and tertiary education, as well as her role as facilitator, consultant and qualitative research methodologist. The broad purpose of this chapter is to describe and explain the relevance of groups, since children function in groups in a variety of settings, such as in the family, in the classroom, on the playground, in therapy and in faith-based situations. We will focus on groups in the school setting and in the classroom context.

A number of social issues will be discussed, as they relate to group work in educational psychology. These issues, concepts and processes will assist you to understand how groups develop and function, and how they may influence the educational practice. Groups are part of our daily lives: at home, at school, in sport and in the workplace. Learners in schools spend time in groups and are expected to learn in group settings. Some questions come to mind in this regard: Are two (or more) heads better than one? How do groups fare on open-ended tasks, which call for creativity and imagination? Are groups in the educational setting always as conducive as assumed? We will work through these questions and issues using practical examples, and interpret them using different theoretical lenses to clarify the complexities of groups and group development as experienced in the school setting.

**Group:** A collection of people or individuals who interact with one another. Two things usually happen when a group of people comes together: they perform some kind of work or task and, in doing so, deal with relationships. Put differently, people are united by a common interest, characteristic or bond, and their activities influence each other's activities.

## DEVELOPMENT OF GROUPS

### Stages of group development

**Stages of group development:** The stages of forming, storming, norming, performing and adjourning.

#### *Preparing stage*

Educators need to prepare thoroughly for group work. Issues pertaining to aims, objectives, tasks, participants and outcomes need to be dealt with in the preparation stage. Once the educator has decided on the rationale of the group work, as opposed to individual work, the forming stage of the group begins.

**Group leaders:** These serve a particular function, such as guiding the group to complete or fulfil a task (work) and facilitating the group processes by rendering support and group cohesion (Sternberg, 1995).

#### *Forming stage*

This stage is characterised primarily by a great deal of uncertainty, as the emotional undertone concerning the purpose of the group, the structure and the leadership (educators) needs to be clarified. In this stage, learners can be nervous and loud, and feel anxious (Geldard & Geldard, 2001).

They may be heavily dependent on clear instructions of what needs to done. Some learners will try to 'test the waters' – they will misbehave to try to find out how far they can go (i.e. what types of behaviour are acceptable and punishable).

Frequently, learners will hide their discomfort through the use of defence mechanisms (e.g. denial and projection), particularly when the educator does not alleviate the tense or awkward atmosphere. It is important for the educator to observe closely how learners 'join in'.

This stage of the group development ends when the learners start to see themselves as group members. This is notable in their use of expressions such as: 'This is my group'.

*Storming stage*

This is a stage of intra-group conflict. Although they may now accept that they belong to a group, learners often resist the constraints that the group imposes on their individuality. For instance, there may be disagreement over who controls the group. Verbal conflict occurs frequently in this regard – not only learners, but even some educators, rebel against authority. As a result, some learners leave the group and others converse about irrelevant issues to escape the current difficult situation. Another way of coping with the inherent ambiguity is to form **pairs** and smaller **sub-groups.** These sub-groups are either loud, rebellious and active, or passive and withdrawn.

It is important for the educator to recognise this phase and to acknowledge the barrage of emotions, both her own and those of the learners. This stage concludes when some informal hierarchical structure has formed.

*Norming stage*

The norming stage takes place when close connections or even relationships develop. The group displays interconnectedness and cohesion. Learners will experience a sense of group identity and camaraderie, and may even give their group a name. Explicitly or implicitly, learners may set out their own rules. They discuss how to tackle the task or project at hand; they assume various roles of involvement and participate in the performance of the work.

During this stage, it is common for the educator to notice that the noise levels have dropped and the learners are deeply involved in their task. Learners may even experience a sense of belonging, which is often associated with contentment, and a sense of pride in their own group.

*Performing stage*

This stage links closely with the norming stage, and manifests in a fully functioning and accepting group. The educator usually notes that the group has progressed from getting to know and understand one another to completing the task at hand.

*Adjourning stage*

**Working groups:** A group which carries out a specific task – be it mundane or specialised.

If the group is working in a temporary setting, this stage is usually reached when the task is completed. Learners conclude their functions, and this can be accompanied by a sense of loss or sadness. Some learners may have struck up genuine friendships with other members of the group and feel a sense of loss when it disperses.

The educator can provide the learners with an opportunity to reflect on the task as well as with feedback on how he experienced the group as a whole (Cilliers & Koortzen, 1997; Geldard & Geldard, 2001).

## Person-centred approach to the group process

The person-centred approach to groups was developed by Rogers (1961), and was grounded on the assumption that human beings tend to move toward wholeness and self-actualisation. This takes place in a group context, where individuals can find direction with a minimal degree of help from the group leader. The person-centred approach to group stages offers insight into group development, which may facilitate the understanding of educators, counsellors and psychologists. Rogers (1980) describes approximately fifteen process patterns in this regard – we will now discuss those appropriate to the educational setting. Educators will see how learners tend to **mill around**, simply owing to a sense of confusion and frustration in the beginning stage of a group. Seldom will learners reveal more than is necessary; they frequently express **negative** feelings. Depending on what stage the group has reached, later in the process learners tend to show signs of **self-acceptance** and a willingness to **help** others in the group. As the group develops, the educators will see a change in behaviour, such as increased **openness** amongst learners.

**Group processes:** The visible interactions in the group, such as milling around, self-acceptance, openness and facilitation.

In addition to viewing levels of group development from this particular perspective, educators take on the role of group facilitator. Rogers and Freiberg (1994) have performed extensive research on **facilitation** in education. They (1994) believe that good facilitators have a great deal of **trust** in the group process and suggest that a group can move forward or make progress without directive intervention. Facilitators must be able to **listen** and provide a safe learning environment. Attitudes such as **empathy**, **unconditional positive regard** and **congruence** are important

skills for the facilitator. The educator as facilitator is in touch with his own feelings and is able to focus on the **'here-and-now'** events taking place in the group process.

### Psychoanalytical approach to the group process

This approach aims to uncover the unconscious dynamics in groups. When we consider problems or conflicts of group members, we recognise that some members may find it difficult to deal with feelings such as anger, resentment, hatred or guilt. From a psychoanalytical perspective problems experienced in a group often have their origin in earlier life, which makes it important for teachers to have some understanding of where the learners are coming from.

Learners experience a variety of groups at school. At times, learners are grouped according to similar ability or mixed ability, and at other times they may form a self-selected group – of class friends, for instance. Teachers need to be attentive to what they can expect from learners in the variety of group configurations in which they interact and perform their work, and how this may affect their performance. For example, relevant questions are: To what extent could or would teaching learners in a mixed ability group lower the overall achievement? and Can skilled learners help to improve the achievements of weaker classmates?

**Formal groups:** Groups that are defined or determined by the structure of the institution, with designated assignments and tasks.

**Informal groups:** Groups that are not formally structured; instead they are natural formations in the work (school) environment.

Research (see, for instance, Geldard & Geldard, 2001) has found that some children work better in groups based on friendship, while other children are likely to do less work in such groups. Irrespective of which view holds true, the social setting and the processes of group formation are important dimensions to gaining an understanding of what happens to groups prior to addressing the issue of learners' performance.

### A diversity approach to the group process

We should strive to know the cultural backgrounds of the learners in a classroom. Pluralism is an ideal state in which the reality of diversity is acknowledged, appreciated and, in an educational setting, encouraged. The educator should cultivate understanding and appreciation of diversity in culture, ethnicity, race, gender, class, religion and lifestyle. Learners in groups (and in classroom) bring with them specific **values** and **beliefs** that are influenced by their culture, race or ethnicity, gender, historical experiences and economic background. The educator should take a broad multicultural perspective, not least of all because learners' perceptions are learned within the context of culture. Learners see their world differently, owing to their various cultural backgrounds (Corey, 1995).

It can happen that learners are misjudged for the difficulty they might have with the language of instruction, which may well be different from

their mother tongue. The educator must strive never to impose value judgements on learners. Closely related is the notion of **stereotyping**, which refers to the categorisation of learners by educators (and at times also by peers) in groups based on perceived common elements such as gender, age, ethnicity or behaviour pattern. The process of stereotyping rejects the unique characteristics of an individual and attributes more generalised features – learners are grouped together and viewed as having characteristics which not all members of the group may indeed possess. Educators are sometimes guilty of stereotyping, believing, for example, that all the boys in a certain group are rebellious. Such a process has an unfavourable effect; learners find the assigned status unsettling and their work is adversely affected (Sternberg, 1995).

Sociolinguists study the relationship between social behaviour and **language**. They observe that people make use of various linguistic signals, for instance turn-taking in conversations. Educators can learn a great deal from this, as they become familiar with the uses and complexities of language, particularly with regard to groups. Turn-taking, silences or learners who talk too much often indicate something deeper. Turn-taking refers to conversation analysis, i.e. who speaks after whom. The silences are unpredictable. Some learners can talk too much and overwhelm other learners, rendering them silent. Teachers need to be attentive to such a situation. Often, those who are silenced in groups hold on to something for which the group might not be ready; when this silence is 'broken', something genuinely meaningful can be revealed.

It is helpful to recognise how learners distance themselves or position themselves using language. Learners tend to change their use of language in different contexts; as an educator, it is interesting to see how learners modify their language to suit each context (Sternberg, 1995).

**Groupthink** (Johnson & Johnson, 1997) may occur when a group of learners is more concerned about group consensus than about genuine interaction. Such a process can be productive and task-orientated, or it can be used to avoid the task at hand. It is helpful for the educator to recognise the group's intentions, since **cooperative group work** is encouraged, but not always achieved. To generate cooperative group work successfully, the educator needs to understand the complexities, processes and dynamics of groups. Moreover, she should form and monitor the groups with care and consideration (De Corte & Weinert, 1996).

**Group dynamics:** Based on certain assumptions about groups, such as dependency, flight or flight, and pairing.

## GROUP DYNAMICS

Groups can be divided according to their psychodynamic phenomena. We will now focus on the basic assumptions underlying the life of a group.

### Dependency

This refers to the notion that a group creates a leader on whom it believes it can depend for nurturance and comfort. The person usually becomes the focus of the group members' attention. As the leader, she will instruct and direct the group toward task completion. A problem can occur when the leader fails to meet the group demands – group members will express their disappointment and, on occasion, can become hostile towards the leader. Learners who feel let down by their leaders will expect and even demand additional guidance from educators (Bion, 1996). (See also the norming stage.)

**Social loafing:** It can happen that not all members of a group make an equal amount of effort. Those who make less effort are loafers.

**Social inhibition:** In contrast to social facilitation, this occurs when the presence and input of other people inhibits or hampers an individual's work or performance.

### Fight or flight

With regard to this assumption, the group either fights (using active aggression, scape-goating) or flees from the task (showing withdrawal, passivity, avoidance). This is evident in the classroom when individuals minimise the importance of the task in an attempt to lure the other group members away from the 'here-and-now' situation (Bion, 1996). (See also the storming stage.)

### Pairing

This assumption refers to bonding that can occur between two individuals who express warmth and affection, and often provide intellectual support. In the classroom, we note, for instance, two learners sitting together and either getting on with the work or conspiring to avoid doing the work (Bion, 1996).

## CONCLUSION

Groups and group work play an important part in the life of a school and a classroom. Educational psychology students can benefit greatly if they understand the role of groups with particular regard to the consequences of group behaviour. Educators need appropriate guidance and training to conduct quality group work. This can be done through experiential workshops. Conducting groups in classrooms is not a simplistic, superficial encounter; it requires in-depth study and practice, and continued personal growth and engagement with the learners in the classroom.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 What are some group indicators that show the stages of group development?

2 How does anxiety in a group become visible, and how would you, as the educator deal with it?
3 How does avoidance of the task at hand show itself, and what are possible reasons for this?
4 How do you perform when alone and when in a group?
5 Are some tasks more suitable for group work than others?
6 What can we learn from groups?

## VOICES

In OBE we have to do group work. I often do not understand how I should form or create a group. I see that my fellow educator next door simply divides the class into four groups. They often make such a big noise. I wonder what they do.

– Grade 8 educator, Gauteng

I have noticed that when I divide the class into smaller groups the process is usually chaotic. The learners shift and shuffle; sometimes they shout and move around to another group. In short, my classroom is often a noisy place and my neighbours complain that I have no discipline. I never realised that groups have a process of developing when engaging to begin with a task. I want to recognise how these processes evolve.

– Grade 9 educator, Limpopo

I experience that, often after the group has settled down in a reasonably respectable manner, learners behave in strange ways, particularly when the tasks are announced. Some learners have more and more questions regarding the task, despite clear explanations and instructions. Others will simply ignore the task and gaze out of the window. Some learners will start fighting and arguing about the task and accuse the educator of not explaining properly. Others may take up the role of leader without asking fellow learners whether that is okay with them. A few may not like that particular person and then pick a fight and highjack the task. I have experienced that several learners find the group so overwhelming, they become anxious and are quite happy to let others do the work. I have also noticed that a number of learners like to group up in pairs, or they choose to do the work alone, excluding the rest of the group.

– Grade 8 educator, Mpumalanga

I hate working in groups. Peter always thinks he knows best. He is really bossy! That is why I do not want to work with him. Sally is really sweet but very anxious. That is why I sit next to her – to protect her from Peter.

– Grade 8 learner, Western Cape

I really enjoy being in a multicultural school. Particularly in group work we get the opportunity to learn from one another. At home I never get a chance to mix

with white people. In class I have learnt that together as a group we can use our differences and diverse background in many creative ways.

– Grade 9 learner, Eastern Cape

I know we must do group work in our classes. This year I have such a diverse group of learners with a range of languages. Some learners find it really difficult to understand English, which is the main language in our school. I find that in group work, where children interact in one way or another, a great deal of stereotyping takes place. When I allow the learners to divide amongst themselves they often do so along racial lines. I experience then a strong sense of competition amongst the groups to deliver the best work. Now sometimes that is good, but at other times it feels really compromising.

– Grade 9 educator, KwaZulu-Natal

I know we are a multicultural school and I must learn to live with everybody. I really sometimes do not enjoy the group work because when the educator divides us into groups I always end up doing the work.

– Grade 9 learner, Gauteng

When I design a task for a group, I often wonder who will dominate the group thinking. I am at times concerned that the stronger learner will overshadow some learners. Time and again, I am concerned about the competitiveness between groups as opposed to the intended cooperativeness between groups. What I have discovered though is that mostly *within* groups, members are cooperative, particularly when the task is challenging; in other words, not too difficult and not too boring.

– Grade 8 educator, Mpumalanga

## APPLICATION STRATEGIES

The strategies are as follows:

- Consider carefully the purpose and the aim of group work.
- Attend to the underpinnings of group formation.
- Work with the group processes and dynamics for optimal functioning of the group.
- Take into account the individual in the group.
- Encourage individual as well as collective thinking.
- Take time to get to know all the learners in your class.
- Engage in a journey of continued self-growth.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 How may your own prejudices influence your thinking and behaviour?
2 How can you go about broadening your understanding of your own culture and other cultures?

## TEN FACTS ABOUT GROUP WORK

1 Groups develop in stages.
2 Groups have conscious processes.
3 Groups have unconscious dynamics.
4 Power and anxiety are prominent issues in groups.
5 Understanding the processes and dynamics facilitates performance.
6 Individual behaviour differs from group behaviour.
7 Some individuals perform better in groups, others perform better when alone.
8 Groupthink may be task-orientated.
9 Groupthink may be anti-task.
10 The quality of the group process in the classroom lies in the hands of the educator.

## SUGGESTED READINGS

Bion, WR (1996). *Experiences in groups and other papers.* London: Routledge.

Wilfred Bion draws on the theories of Melanie Klein – of projective identification and the interplay between the paranoid-schizoid and depressive positions – to advance his study of group phenomena. Readers wishing to learn about the unconscious dynamics of groups will find this book most useful.

Corey, G (1995). *Theory and practice of group counseling* 4th edition. Pacific Grove: Brooks/Cole.

The author provides a variety of theoretical perspectives on groups which are relevant for therapists and educators. Theories such as Gestalt, Psychoanalysis, Adlerian and Transactional Analysis are illustrated.

Geldard, K and Geldard, D (2001). *Working with children in groups. A handbook for counsellors educators and community workers.* New York: Palgrave.

This book explains the value of the outcomes of group work with children. It is an excellent source for educators and counsellors who work with children in groups, formally and informally. Aspects such as advantages of group work, different approaches to group work, group planning, assessment in groups and facilitation in groups are discussed.

Johnson, DW and Johnson, FP (1997). *Joining together. Group theory and group skills* 6th edition. Boston: Allyn and Bacon.

The authors offer an interesting discussion of group dynamics. Groups are explored in terms of experiential learning, and contextual

and social issues that relate to groups are discussed, such as communication, decision-making, creativity, leadership, power and diversity. In addition to the manner in which groups function, the theoretical underpinnings of groups are explained.

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# Community Development

CJ Gerda Bender

## INTRODUCTION

This chapter introduces the topic of community development. It is intended primarily for readers who have an interest in the topic and seek an in-depth understanding of the term and the process. For those who are already informed and/or have experience in the field, the chapter provides a resource for exploring and initiating community development and reviewing the basics of the process.

The main aim of this chapter is to acquaint learners with the basic concepts of community development, the principles of community development practice, the approach and models of community development, the community development process and the factors that contribute to successful community-driven development.

In order for us to understand community development it is important that we realise that it has a variety of meanings for different people in various times and places. It is founded on voluntary and healthy interdependence, mutual benefit and shared responsibility. In recent years, community development tends to have involved local people seeking and taking advantage of opportunities, identifying and using their assets, or working together to solve problems.

Community development has its roots in several academic disciplines, including Sociology, Economics, Psychology, and even Architecture. The interdisciplinary approach of community development offers several advantages, such as providing a holistic view of communities. The interest of educators and educational psychologists in this process is well established, but it has recently increased. Accompanying this is a degree of confusion about what community development is and what it is not. While different approaches and a variety of ideas exist about the subject, there remains an underlying assumption that it is familiar to educators and that we have a role to play in the process. However, communities vary as much as do individuals, and no single approach can be effective in every situation. Therefore, this chapter offers a flexible process and more generalised information.

## COMMUNITY, DEVELOPMENT AND COMMUNITY DEVELOPMENT DEFINED

### Community

When we consider **community**, we tend to think in geographic terms. Our community is the place (i.e. city, town or village) in which we live. When community is thus defined, it is positioned within precise boundaries that are readily understood and accepted by other people in various other communities.

Defining communities in terms of geography, however, is merely one way of looking at them. Communities can also be defined by common cultural heritage, language, and beliefs or shared interests. These can also be called 'communities of interest'. Even when community refers to a geographic location, it does not always include everyone within the area. For example, many Zulu communities are part of a larger, non-Zulu geography. In large urban centres, communities are often defined in terms of particular neighbourhoods. Most of us belong to more than one community, whether we are aware of this or not. For example, each of us can be part of a neighbourhood community, a religious community and a community of shared interests – all at the same time. Relationships, whether with people or the land, define a community for each individual (Berger, 1998).

There are many ways to define community. Each of the standard definitions may be sufficient in most situations, but they vary in terms of the elements included (Christenson & Robinson, 1994). In general, practical terms, a community is defined as a particular type of social system – which can include the dimensions of geographic location, psychological ties, and/or people working together toward a common goal – that is distinguished by the following characteristics:

- People involved in the system have a sense of common purpose(s) and/or interests(s) for which they assume mutual responsibility; they acknowledge their interconnectedness, respect the individual differences among members, and commit themselves to the well-being of each other in particular, and of the integrity and well-being of the group as a whole.
- The system has longevity and continuity, and is expected to persist.
- Its operations depend considerably on voluntary cooperation, with a minimal use (or threat) of sanctions or coercion.
- The system is multi-functional. It is expected to produce many things and to be attuned to the various dimensions of interactions.
- The system is complex, dynamic and sufficiently large for instrumental relationships to predominate.
- Usually, there is a geographic element associated with its definition, as well as basic boundaries.

### Development

The term **'development'** is often associated with growth and expansion. During the industrial era, development was strongly connected to increased speed, volume and size. Many educationists, psychologists, social workers and development workers are currently questioning the concept of growth for numerous reasons. There is a realisation that more

is not always better. Increasingly, there is respect for reducing outside dependencies and lowering levels of consumerism. Development, therefore, may not always imply growth; it does, however, always imply change. In community development, the term development refers to a particular type of conscious effort of improvement and of capacity-building.

## Community development

Community development definitions tend to include mention of the process of bringing people together for the achievement of a common goal, usually related to changing the quality of life. Some definitions imply the education of people, and the process of building networks and improving the capacity of individuals and organisations. Other definitions focus on improvements within the community without necessarily paying attention to building relationships.

Based on the theoretical framework of systems theory and ecological theory, community development can be defined as the purposeful effort by community members to learn together to guide the future education, training and development of themselves, and to make full use of their own, as well as external, resources. It is a process whereby community members come together to take collective action and generate solutions to common concerns and problems. Its nature is multidimensional and therefore demands a multidisciplinary team approach. Figure 11.1 illustrates such an approach.

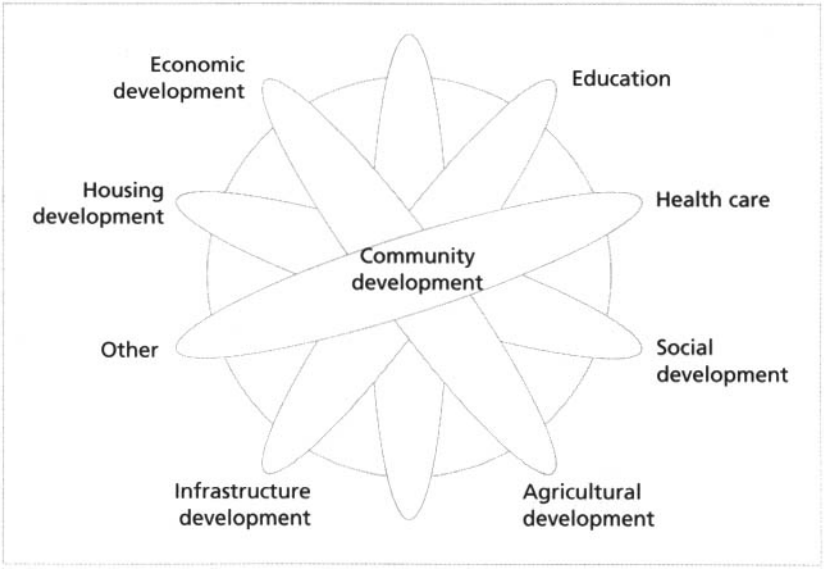


Figure 11.1 Community development as a multidiscipline

The scope of community development can vary from small initiatives within a small group to large initiatives that involve the whole community. Regardless of the scope, effective community development should be a long-term endeavour, well planned, inclusive, equitable, holistic, integrated into the 'bigger picture', initiated and supported by community members, and of benefit to the community.

The primary outcome of community development is a planned effort to build assets that increase the capacity of people (community members) to improve their quality of life (Green & Haines, 2002). Effective community development results in mutual benefit and shared responsibility among community members, and recognises the connection between social, educational, cultural, environmental and economic matters. It takes account of the diversity of interests within a community and is aware of its role with regard to building capacity. Community development helps build community capacity in order to address issues, take advantage of opportunities, find common ground and balance competing interests. It does not simply happen – a *conscious* and a *conscientious* effort is required for something (or many things) to be done to improve the community.

## CHARACTERISTICS OF COMMUNITY DEVELOPMENT

Some observers are apt to label any and all attempts to intervene in community affairs as community development. However, many commentators are more discriminating. Those in the community development and community education field recognise a set of characteristics that differentiates community development from other forms of community-related activities. Its distinguishing characteristics include:

- A focus on a unit called 'community'.
- Conscious attempts to induce non-reversible structural change. The idea of such change is not always made explicit. However, it is generally understood that once structural change takes place in a community system, that system cannot return to its original configuration. Moreover, it is recognised that some form of structural change may be made to avoid other changes deemed undesirable, or to stabilise an existing preferred situation.
- The use of paid professionals/facilitators/workers.
- Initiation by groups, agencies or institutions external or internal to the community unit.
- An emphasis on public participation.
- Participation for the purpose of self-help.
- An increased dependence on participatory democracy as the mode for community (public) decision-making.
- The use of a holistic approach.

Some confusion arises because those in related professions frequently shorten the list of distinguishing elements. They tend to apply an incomplete set of criteria, usually involving only the first five items listed previously. The position of community development clearly involves more than simply the concept of public participation – it is the function and mode of citizen participation in the process that separates community development approaches from other types of planned interventions. In addition, community development is distinguished by the application of a holistic, rather than a sectoral, point of view.

## WAYS OF VIEWING COMMUNITY DEVELOPMENT

In the literature, community development is regarded as **community education, community organisation** or **community participation.** These diverse concepts refer to the active involvement of people at the local community level to either oppose or support a matter, a phenomenon or a programme in which they are interested. Sanders (1958) provides a classic work on the theories of community development. Sanders (in Christenson & Robinson, 1994) presents a four-fold typology of the subject:

1 process
2 method
3 programme
4 movement.

A summary review of this typology is presented in Table 11.1.

**Community education:** A way of providing opportunities for all those who make up the community, with which a school tries to work and to which a school tries to respond. It is a fundamental concern for people and their educational needs, whatever their age or personal history. It extends the principles of educating children and students effectively into providing educational opportunities for the whole community.

**Community organisation:** A process and method through which people execute various activities, such as cooperation, coordination, ordering and control, to attain an ultimate objective which can be aimed at bringing about change.

## CORE OF COMMUNITY DEVELOPMENT

Principles and values are a key part of both community development and **capacity-building**, particularly when these are considered as participatory or inclusive processes. Such values include respecting people, improving the quality of living, appreciating and supporting cultural differences, and looking after the land, water and wildlife.

The actions of today's communities impact on future generations. In order to honour one of the over-riding values in community development – to leave a positive legacy – we must take care to add value to everything we do. We should build capacity and develop our communities in a way that enhances all aspects of the community (the total ecology) and is appropriate for tomorrow as well as for today.

When we refer to the '**core**' of community development we include values and beliefs, assumptions, and principles of community development

**Community participation:** Refers to the actions of communities, groups or individuals related to the development, improvement or change of an existing situation.

**Capacity-building:** The ways and means needed to do what must be done. The term has a broader scope than simply skills, people and plans; it includes commitment, resources and all else that is brought to bear on a process to make it successful. Capacity-building emphasises existing strengths and abilities, rather than being overwhelmed by problems or helplessness. An indication that capacity is developing within a community is that people are active, interested and participating in what is going on. They may also question, challenge and debate – but they should debate what *can be done* rather than believing that change will never take place.

**Table 11.1** Four ways of viewing community development

| I. A PROCESS<br>Community development as a process: | II. A METHOD<br>Community development as a method: |
|---|---|
| • has a person/human being as a focus point<br>• allows the process to progress in phases, namely: situation analysis, determining the needs and unfulfilled opportunities, decision-making about what can and should be done to change the situation, and moving in the direction of achieving the goals and objectives being aimed at<br>• allows for the presence of a facilitator to accompany the process, as well as support of the community<br>• demands self-help and self-decision as a prerequisite<br>• demands collective action from the community, that is community involvement and participation<br>• allows the community to identify needs by themselves<br>• formulates specific goals which should be achieved. | • refers to a procedure<br>• is focused on a specific aim<br>• utilises the process of community development<br>• links various disciplines into a multidisciplinary team<br>• can be used by a facilitator from outside the community<br>• requires that a community identifies its own needs<br>• enables a community to make its own decisions regarding action plans<br>• utilises resources. |
| **III. A PROGRAMME**<br>Community development as a programme: | **IV. A MOVEMENT**<br>Community development as a movement: |
| • consists of methods (a set of procedures) and contents (a list of activities)<br>• implements specific activities<br>• utilises specialised expertise<br>• is implemented in accordance with a time schedule and a budget<br>• can easily disregard human needs and assets. | • aims to improve the quality of life for everybody and is regarded as a cause to which people are dedicated<br>• is emotionally loaded (some will approve it, others will not)<br>• can become institutionalised<br>• demands specific norms and goals<br>• is a philosophical rather than a scientific concept. |

and good practice (Community Development Academy, 2002). Figure 11.2 provides a visual explanation of this core.

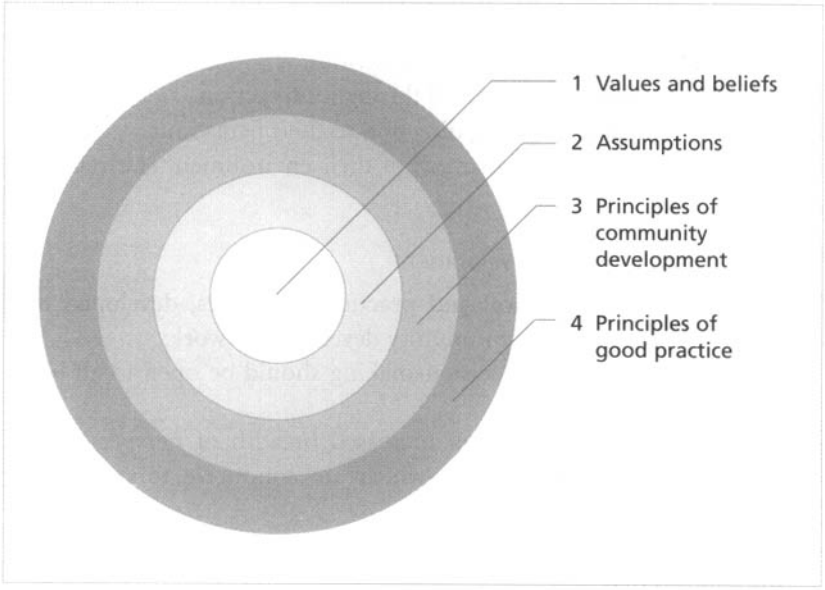


Figure 11.2 Core of community development (Community Development Academy, 2002: 15)

### Values and beliefs

These determine the focus of community development and are useful checkpoints of working approaches to resolve a variety of issues within the community. The values and beliefs are as follows:

- People have the right:
  - to participate in decisions that will affect them
  - to strive to create an environment they desire
  - to strive to reject or modify an externally imposed environment.
- Participatory democracy is the superior method of conducting community business.
- Maximising human interaction in a community will increase the potential for community development.
- Motivation is created in people by their interaction and participation.
- Community development is concerned with developing the capacity of people to deal effectively with their community (Littrell, Littrell & Cary et al., 1992).

## Assumptions

Assumptions of primary importance to community development are as follows:

- People are capable of rational behaviour.
- Significant behaviour is learned behaviour.
- Significant behaviour is learned through interaction.
- People are capable of giving direction to their behaviour.
- People can create or shape much of their environment (Littrell et al., 1992).

## Principles of community development

The following are theoretical and practical principles, developed over time, that act as a guide to community development work:

- Participation in public decision-making should be open to all interested persons.
- Broad representation and an increased breadth of perspective and understanding are conditions which are conducive to community development.
- Methods that produce accurate information should be used to study the community.
- Understanding and general agreement is the basis for community change.
- Any person has the right to be heard in open discussion whether in agreement or disagreement with the norms of society.
- All people may participate in creating and recreating the community of which they are a part.
- A systems perspective or holistic approach is the necessary basis for development that will involve and benefit everyone in the long term (Littrell et al., 1992).

**Community-building:** Refers to a variety of efforts to organise and strengthen social connections, or build common values that promote collective goals, or both. Literally, community-building means building more community (an interim goal) as a way of achieving some set of desired outcomes (safer neighbourhoods, healthier children and families, better preserved cultural traditions, more profitable businesses, improvement of education and training, and so forth). While specific meanings vary widely, depending on context, community-building emphasises the beneficial aspects of key processes (actions) that shape relationships, values, psychological attachment and other aspects of community. As such, community-building has important connections to the organising and development of the community (Bender, 2003).

## Principles of good practice

The Community Development Society (CDS) (2001), an international organisation of community development teachers and practitioners, has adopted the following principles:

- Promote active and representative citizen participation in decision-making so that community members can meaningfully influence decisions that affect their lives. This implies that we should take a resolute approach to including people from all segments of the community in the planning, implementation, operation and ongoing development of any programme.
- Engage community members in issue analysis so that those affected may adequately understand their situation. The more people are

involved in analysing and understanding the issues, the better they are able to make informed decisions and to support those decisions in the community.

- Help community leaders and citizens understand the economic, social, political, environmental and psychological impact associated with alternative solutions.
- Seek to prevent any effort, and inform those involved of the consequences of any effort that is likely to adversely affect the disadvantaged segments of a community. We must foster openness, cohesiveness, inclusiveness and competence in the community, as these are critical to building trust, credibility, community-based ownership and a successful project.
- Actively work to increase leadership capacity (skills, confidence and aspirations) in the community development process. This means that planning and implementation processes should foster leaders' ability to participate, lead, make decisions and learn more about whatever is required.

## COMMUNITY DEVELOPMENT FRAMEWORK

As community development is dynamic, a blueprint for the perfect community development process is unrealistic. It is better to plan a framework that provides guidance and can be adapted to the evolving situation.

The following framework provides broad-based direction and identifies key process issues. This framework is based on the real-life experience of community development practitioners. The main components are:

- building support (organising)
- making a plan (visioning and planning)
- implementing and adjusting the plan (implementing and evaluating)
- sustaining the development (maintaining momentum) (cf. Rubin & Rubin, 1992; Kretzman & McKnight, 1993; Leuci, McCall & Wade, 1993; Mayer, 1994; Walzer, 1996; Kelly & Becker, 2000).

### Building support (organising)

Fundamental to community development are community enhancement and capacity-building. Both are processes that involve learning and inclusion, and, in most instances, the process is as meaningful as the results. All communities have a history – it is important to understand and honour this history. Our excitement and enthusiasm for community development can make us impulsive. We want to rush into action and see results. However, it is better to take stock of what has been done, acknowledge

and recognise the contributions of others, build on community success, and involve a wide range of members and interests.

The first step is to create awareness, understanding and support for the community development process. To build support for community development in a community, we should know the answers to the following questions:

- Why does the community believe a community development approach should be initiated?
- What are the benefits that will result from this approach?
- What first steps need to be taken?
- Who are the key people and/or organisations that should be taking a leadership role?
- What are the longer term implications of the initiative?

Commitment to any long-term process or action should not be made without an understanding of what is to be done, why it is to be done, what the benefits should be and who will be involved. Community development is a broad concept – people may have difficulty knowing where to start and what is expected of them. Thus, identifying the first steps in the process is essential. When interest is created, we need a fast and effective method of expanding this interest to engender further exploration and commitment. Building support for a community development initiative is an ongoing task.

Community development is an inclusive process. Community members with a shared vision and a sense of belonging to their community usually initiate the process. It is important, however, that the process be extended to include the wide range of interests (i.e. economic, educational, social, environmental) and organisations (i.e. government, labour, business, social and education services) that are part of the community. We should never make assumptions about traditional roles and responsibilities or levels of interests. For example, many private sector businesses have become increasingly interested in education and social development issues, and some government agencies are now entering into partnerships with community organisations to provide effective programmes and services covering a wide range of interests.

The individual make-up of a community influences the identities of those to be involved and the activities that will be viewed as legitimate. Ensuring that different cultures and interests are respected and included (in a meaningful way) is vital. For example, respecting cultural traditions and religious holidays, being aware of different styles of communication, and ensuring that persons with disabilities can participate fully are some of the ways in which we can build credibility and support.

Community development is a living process. Many communities begin powerfully but fail to sustain the participatory nature of the process. To maintain interest and support over time, inclusion and local participation should be built into the very nature of the process and must be maintained throughout. This can be done by:

- thinking through and planning the process in advance
- evaluating the process as it is implemented and making adaptations as needed
- communicating clearly
- challenging the community to be successful by focusing on common ground
- developing an informal network by talking to people about the community development plan and the benefits it will produce
- holding community centre meetings (or using the school hall) at regular intervals to keep the community informed and to create an opportunity for dialogue
- asking individuals or organisations known to be strong supporters of community development to promote the initiative
- identifying individuals or organisations that may not be strong supporters of community development, listening to their concerns and inviting them to participate
- assigning concrete tasks and roles to individuals and organisations
- recognising the contributions of individuals and organisations, and celebrating success.

Community development initiatives can fail because of a lack of support or commitment from community members and organisations. When a participatory process is sincerely desired, and individuals and organisations believe they are being listened to and included, we will have been successful in building community ownership, support and legitimacy. Although there is no doubt that developing this support or commitment requires time and effort, developing and maintaining community interest and involvement is an integral part of the process (Rubin & Rubin, 1992; Mayer, 1994; Gelsthorpe & West-Burnham, 2003).

### Making a plan (visioning and planning)

Developing a community plan involves systematically assessing alternatives and making choices in the context of a defined community vision. Planning is a process that assists community members in translating knowledge, concerns and hopes into action. A community plan is a written document created by community members (Rubin & Rubin, 1992; Kelly & Becker, 2000).

The plan outlines the following:

- Where the community is now (community strengths, assets, weaknesses, resources).
- Where the community wants to be (the ideal future for the community – the vision).
- The general direction the community wants to take to close the gap between where they are now and where they want to be.
- The specific actions within each general direction required to close the gap.
- The resource and capacity issues that need to be addressed.
- What success will look like, and how to tell when the community has been successful.

The development of community plans is premised on the logic and structures of the strategic planning process, which takes us from a broad-based vision to specific actions and action plans. The process links vision, goals, outcomes and action into a logical and inter-related structure. The development requires resources and dedicated leadership. It is important to determine whether the community members have what it takes to put a plan in place before they actually begin. Failure to complete a process can harm the community and undermine the commitment of members to future development approaches (Kelly & Becker, 2000; Swanepoel, 2002).

Community development planning is useful for, among other things, bringing a community together and finding solutions. The plan and the process should be integrated, inclusive, realistic, appropriate, results-based, community-based and easy to understand.

The benefits of a community plan are that it:

- creates a long-term framework for decision-making and action
- provides a holistic and comprehensive approach to community development
- enhances the community's ability to make informed decisions about its development
- provides a valuable resource for communicating vision and actions to individuals inside and out of the community
- identifies objectives and actions that can be measured over time
- integrates the perspectives of various community members.

### *Seven steps in a community planning process*

Figure 11.3 illustrates the community planning process, which is neither linear nor static, but instead living and dynamic (Rubin & Rubin, 1992; Leuci et al., 1993; Mayer, 1994; Walzer, 1996; Kelly & Becker, 2000).

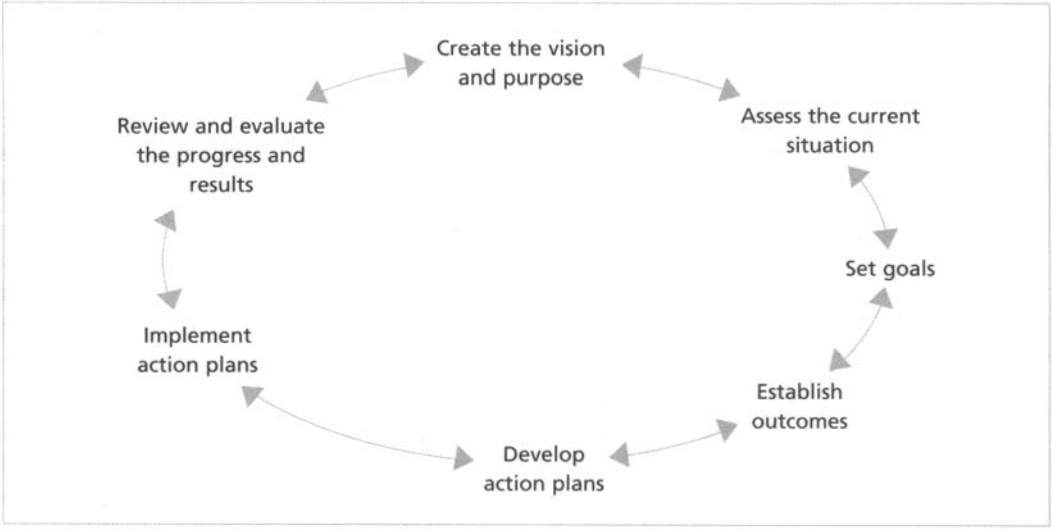


Figure 11.3 Community planning process

The planning process involves the following seven steps:

- **Step 1: Create a community vision** – which will help to create a picture of where the community wants be. A community vision describes what is hoped for and valued by the community by creating a picture of the ideal future. We should choose a visioning process in which all ages and abilities can participate, as the vision will build support and ongoing interest.
- **Step 2: Assess the current situation** – which will tell the community where they are now and determine existing community capacity. Assessing the current situation involves factors outside as well as within the community. The process entails identifying strengths, weaknesses, opportunities and challenges. We need to build on past and present efforts, strengths and assets as the basis of the assessment.
- **Step 3: Set goals or vision themes** – which are the major topics that capture the nature of the vision statement, and are the broad directions for closing the gap between where the community is now and where it wants to be. Goals outline the means by which the community will reach their vision. If we think of the vision as a destination, the goals are the pathways to reaching that destination. They should be clear and easy to understand. For example, the vision theme is education, and the goal is to improve the quality of education in schools.
- **Step 4: Establish outcomes** – which are specifics that outline how goals will be reached. Outcomes are specific, measurable and

interconnected statements of the action needed to achieve goals. Usually several outcomes or objectives are necessary for a goal to be reached. When we consider goals as the pathway to reaching the vision, outcomes are the stepping-stones used to create these pathways. For example, the outcomes are to develop and implement after-school programmes for primary school learners and to start a 'Parents as Teachers' programme.

- **Step 5: Develop action plans** – which entail who, what, when and how. Action plans provide the concrete steps required to fulfil each outcome. They outline the individuals who are responsible for the action, the time frame for implementation and the resources that are required. We can design an action plan worksheet, which gives an outline of the vision theme, the project and its purpose, members of the task group, the critical steps, names of those to be involved and make decisions, resources, information and assistance needed, the time needed to do the task and the way the community will know it has successfully accomplished the task (Leuci et al., 1993).
- **Step 6: Implement action plans** – which involves undertaking the commitments and activities outlined in the action plans. A plan is just a plan until it is implemented – then it is community development. The following are important questions to consider with regard to implementation: What is the duration of the project (30- or 60-day goal)? Who will chair the project? Who are the people that should be brought into the project? Who will contact them? How will we communicate the project progress and needs to the community? How are the projects to be coordinated? How are more projects to be developed and initiated? How is the community going to celebrate success? Who will take responsibility for sharing vision and purpose with others in the community? An implementation worksheet can be developed which includes all of these aspects (Leuci et al., 1993).
- **Step 7: Evaluate progress and results** – which determines whether the community is moving toward its outcomes, goals and vision. It is important to think about what success will look like and what outcomes are desired in advance of, as well as during, the activities. During an evaluation the community needs to explore four basic questions:
  (a) What worked and why?
  (b) What did not work and why?
  (c) What could have been done differently?
  (d) What adjustments and changes are required now?

The process the community develops for answering these questions depends on the complexity of the activities, and the depth of knowledge and understanding they require. Evaluations of community development can be a challenge because they should have both quantitative and qualitative aspects (Kretzman & McKnight, 1993; 1997).

Factors contributing to successful planning:

- a shared vision
- long-term commitment
- leadership
- resources: financial, physical and human
- support: community and political
- a realistic appraisal of the current situation
- a desire to build on the accomplishments and efforts of the past
- an inclusive process and the ability to work as a team
- a strong commitment and the discipline to take the time needed to work through the logic of a planning process
- a shift beyond traditional approaches to identify innovative possibilities and options for consideration
- a commitment to use the plan as a tool and to modify and make adjustments as needed.

As the community develops its community development plan and begins to make decisions about activities and resources, differences of opinion will usually arise. The vision and purpose will help to ground and direct these difficult decisions, and the goals will help the community to remain focused on the results it is trying to achieve.

### Implementing and adjusting the plan (implementing and evaluating)

Creating an inclusive community development plan can be a time-consuming process. The reward for investing this time and energy comes as the community begins to implement the plan. The implementation process must be well planned and well managed if it is to be successful. However, implementation has its own challenges, which include:

- integrating and coordinating a variety of tasks and activities
- being a good steward of resources
- helping individuals keep focused on the big picture
- remaining positive, and not becoming discouraged by the unexpected or by the fact that things may not be working out as envisioned
- assessing and building on community capacity
- making difficult decisions when resources are limited

- timing actions so that they build upon rather than compete with the actions of others
- keeping community members motivated and connected
- ensuring that community ownership remains strong
- communicating and celebrating results.

Successfully managing the activities listed above requires strong leadership and a structure to support implementation. When we started the community development process, we could have found that there was a core of individuals who were active in almost all the activities undertaken. As a small group, informal communication and organisational arrangements were probably all that we needed to work together effectively. As we move to implementation of the community development plan, the level and the nature of our activities may no longer make this casual approach possible. A structure or organisation that supports our efforts could be necessary.

As in many other aspects of community development, we need to be absolutely clear about the nature of the project to ensure that community members understand what is being done and how they might be involved. It is difficult to invite participation if the goals, tasks and expectations are vague or confusing. Partnerships are a highly useful vehicle for sharing the load, for implementing community development plans and for carrying out some of the possible roles.

We need to remember to use the community development plan to ground activities and encourage participation. Too often, communities create a plan, begin an activity and then lose sight of the vision and goals they want to achieve. When this happens, it is difficult to maintain, much less elicit, the interest of others.

### Sustaining the development (maintaining momentum)

Creating a firm foundation for community development and taking the first steps in a long-term process is exciting. Equally so, but more challenging, is building and maintaining momentum (sustainability). There are seven key areas that require careful consideration when we develop an approach to maintaining momentum and sustainability for the community development efforts. These key areas – leadership, partnerships, building on community capacity, funding, reviewing and adapting the community development plan, communication and using technical support and expertise – are summarised below.

Key areas of sustainability

*Leadership*

Consistent and skilled leadership is essential for effective community development. The role of the community development leader is, over time, to build community capacity that is open to change and adaptation. The goal of the leader is to encourage empowerment of the community, not gain control over it (Helgeson, 1990; Wheatley, 1994; Carnevale, 1995).

*Partnerships*

A partnership is defined as a relationship where two or more parties with compatible goals form an agreement to share work, risk, and results or proceeds. Partnerships can be formed for a wide variety of reasons, but they are consistent in that they share authority, have joint investment of resources, result in mutual benefits, and share risk, responsibility and accountability. When a community-based partnership occurs in a community, it involves community members and directly impacts or benefits that community. Essentially, community development partnerships exist when they insist on local participation and empowerment, have planned inclusion and leadership, enhance local and collective skills, support local entrepreneurs and business, are *for* the community *by* the community, and often integrate several areas of development (social, education, economic, environmental and cultural) (Beckman & King, 1992; Miller, Rossing & Steele, 1992).

*Building on community capacity*

Community capacity-building involves various aspects and considerations. There is no clear agreement about what should or should not be included, but most often it refers to skills, knowledge and ability, and can also include access, leadership, infrastructure, time, commitment and resources. Developing community capacity means taking risks, improving the situation and sharing control. It involves change, training and increased power for those who have previously been without it. This is the power of both community development and the community capacity-building processes. We need time to express ourselves, to adapt to change and to learn. This is best accomplished when community members have a voice

and are in charge of the process (Kretzman & McKnight, 1993; Swanepoel & De Beer, 1996).

*Funding*

Obtaining funding can be a major challenge for a community development initiative. This is particularly the case when the community is beginning the process. As the process reaches the stage of concrete action, funding usually becomes easier to find from local financial institutions, investors, government programmes, foundations and private sector sponsors, or from community members themselves. The key to finding financial support is to be able to clearly identify what the community wants to do, why it wants to do it, and what benefits will result from its action (Carnevale, 1995; Swanepoel, 2002).

*Reviewing and adapting the community development plan*

A community development plan is an ongoing process designed to provide structure and guidance for the community development activities. Once a year, we should undertake a review of the process, which should be open and inclusive. It is an ideal time to celebrate successes and accomplishments, as well as to make adjustments and changes. Key questions to be considered as part of the review process are:

- What has been achieved over the last year?
- Is the community closing the gap between where they were when they developed the plan, and where they want to be?
- What changes have occurred in the last year, and can the community development plan effectively respond to these?
- What are the strengths the community should continue to build upon?
- What are the challenges to which the community needs to respond?
- Are the goals and objectives still meaningful?
- Are there new actions that the community should take to reach their vision and goals?
- What additional skills and resources does the community need to be effective?

A community development plan is only as meaningful as the time it utilises and the people who create it; thus, it should be adapted

to suit major changes that take place within the community. An annual review of the plan brings communities and organisations together to reinforce the vision they have for the community, and to see how well the various aspects of the plan are fitting together.

*Communication*

Communication is a primary mechanism for building continued support for community development. It demonstrates clearly that the process is open. We should encourage community members to become involved and ask questions, and we must never assume that everyone knows what is going on or that communication is unnecessary. Time spent on communication is rarely wasted. We need to use a variety of communication modes to be as clear and as straightforward as possible. Communication is an important tool to:

- create awareness of community development and encourage participation
- develop support and momentum for the activities
- enable community members to contribute their knowledge, skills and abilities
- motivate for a particular option or decision
- receive information and feedback
- avoid and resolve conflict (Jensen & Chilberg, 1991; De Beer & Swanepoel, 1998; Jehl, Blank & McCloud, 2001).

*Using technical support and expertise*

The design and implementation of an effective community development plan requires a wide range of skills and abilities, many of which can be found within the community. It is important to invite community members and organisations to contribute their skills and abilities to the community development process and to make use of these in new ways. However, there may arise situations where the community developer wants to draw upon technical support or external expertise to enhance and support the community development process. For example, the skills and abilities required are specialised and not fully developed within the community. Bringing in technical support and expertise can be effective in building and maintaining momentum. We should use such support and expertise in bolstering community efforts rather

than directing or controlling those efforts. The community plan and community expertise should shape how and why technical expertise is used (Mattessich, Monsey & Corinna, 2001; Swanepoel, 2002).

## COMMUNITY DEVELOPMENT RESOURCES

The term **'resources'** is used in many contexts. It is often understood to mean money; however, in the context of community development it can mean far more than that. Community development includes natural, human, financial and infrastructure resources (Littrell et al., 1992; Swanepoel, 2002).

### Natural resources

Natural resources are provided by nature. Frequently, community development focuses on the industry that extracts the natural resource, creating jobs and wealth, but if this is poorly managed it may not be sustainable over time. Part of our effective community development is to be good stewards of the land and maintain a healthy balance between the environmental, economic, educational and social undertakings in the community.

Natural resources, and the legislation and policies thereof, include:

- land, air and water
- minerals and surface/subsurface metals and ores
- oil, gas and petroleum
- trees and other plants
- wildlife.

### Human resources

Human resources concern people. People are at the heart of all community matters and thus are critical to success. However, people alone are insufficient. In community development, it is important to have the right people in the right jobs with the right skills, knowledge and abilities. This can be a challenge, as we are often unsure of who should be doing what, what the required skills are, or where to obtain the necessary skills, if these are missing. Placing people in the right roles and building skills or developing human capacity is called 'human resource development'. Occasionally, it is referred to as 'building' or 'increasing social capital'. It acknowledges the value of people and their talents, and recognises that this

type of development is as important as natural resource development. Unlike many of the natural resources on the planet, people are renewable and should be treated as the most valuable resource in a community.

Human resources include:

- healthy families and lifestyles
- skills-building, education and training
- career planning and employment
- effective and legal hiring practices
- workers' compensation and pensions
- human rights and labour laws.

### Financial resources

Financial resource is a well-understood concept. We know that it means money and often implies the ability to acquire money. The matter grows more complicated when we try to locate and attract the type and amount of financial resources that would best benefit our community development initiatives. Just as it is necessary to have the right people doing the right jobs, it is important to have the right money at the right time. Traditionally, community development is funded (in part or in total) through economic development channels, taxes or government grants. This leaves little power or control in the hands of the people who want or need to do things that are not on the government or private sector agenda. Fundraising and the seeking of grants have become full-time occupations for many organisations and groups involved in community service and development.

Financial resources include:

- fundraising and grant-seeking
- banks and other financial institutions
- community loan funds
- access to capital and investment funding
- government loans and programme funds
- cooperatives and other forms of investment
- policies and guidelines related to finance lending and reporting.

### Infrastructure resources

Infrastructure is needed for community development to be effective. However, infrastructure also refers to the political systems and leadership needed to support a community, and the policies and laws established in the community. Without infrastructure there would be no physical

community. When considering resourcing a community development initiative, it is valuable for us to think about the type of infrastructure required, its relationship to what currently exists, and whether or not there are policies or existing support systems to which contact or adherence is required. A community development undertaking often has its own infrastructure, such as leadership or a physical building, and it and any new infrastructure resources used should exist in a healthy relationship.

Infrastructure resources include:

- buildings and structures
- transportation and access
- communication systems
- electrical, sewage and garbage heating systems.

## MODELS OF COMMUNITY DEVELOPMENT PRACTICE

Although there are common issues and problems in the field of community development, there is wide variation in how community development practitioners approach their work. James Christenson (in Christenson & Robinson, 1994) has developed a way of conceptualising these differences through three community development models or approaches: **self-help**, **technical assistance** and **conflict**. These are summarised in Table 11.2. Although many community development efforts do not fall neatly into one of these categories, the typology is useful for understanding some of the different ways in which community development practitioners may approach their work (Christenson & Robinson, 1994; Green & Haines, 2002).

Table 11.2 Three models of community development practice (adapted from Christenson & Robinson, 1994; Green & Haines, 2002)

| Model | Role of change agent | Task/process orientation |
|---|---|---|
| Self-help | Facilitator/educator | Process |
| Technical | Advisor/consultant | Task |
| Conflict | Organiser/advocate | Process and task |

### Self-help model

At the heart of the self-help model is the belief that community development is primarily about helping people to help themselves. Without the commitment of self-help, a community may exist as a place, an organisa-

tion or an interest group, but be lacking the capacity to effectively act on its own behalf. Community development practitioners adopting this model tend to define their role as that of **facilitator**, helping the community identify its goals and increasing its capacity to participate in the solution of collective problems. The facilitator generally adopts a neutral position in the change process and is concerned more about the process of community development than the specific outcomes (e.g. jobs, houses, educational programmes, services).

This approach assumes that increasing the capacity of community members to address their problems will result in improvements in the quality of life and the ability of members to help themselves in the future (Christenson & Robinson, 1994; Green & Haines, 2002). The approach requires several conditions in order to be effective: individuals must have the necessary democratic skills, participants must have a reasonable expectation that their efforts will have some impact, and they must identify their shared interests so that a common set of goals can be compiled.

Community development efforts using the self-help model tend to have a longer lasting effect than some other approaches because community members have greater ownership in the process.

### Technical assistance model

Technical assistance is intended to help communities define their problems, needs, potential solutions and assets, and may allow for some degree of community ownership of problem definition and solution. Practitioners who adopt this model assume that the most important obstacle communities face is technical assistance and information. This model is firmly rooted in the need for rational planning with regard to development. Thus, the appropriate role for the practitioner is that of **consultant**.

Those who advocate the technical assistance model are much more concerned with the eventual outcome of the community development effort than with the capacity of community members. Technical assistance can be provided in a variety of ways from ongoing local assistance to short-term consultation.

A variety of issues should be considered in the technical assistance approach to community development. For example: Whose values are being served by the assistance? How have the goals been established? Are there other alternatives to be considered? Will the assistance help participants address community problems better in the future?

Technical assistance to communities can be provided through several different institutional arrangements: a centralised location, a regional

provider or local assistance. Assistance offered through a centralised location is the most cost-effective but often lacks the follow-up that is frequently necessary. An alternative is to give technical assistance through local or regional providers. This approach has certain advantages: the consultant usually has much more knowledge about local or regional conditions, and he or she is usually available for follow-up consultation once the project has been initiated. Notably, this type of technical assistance is usually much more costly than the traditional consultant model (Christenson & Robinson, 1994; Green & Haines, 2002).

### Conflict model

One of the best established traditions in community development is the conflict approach, which is often identified with Saul Alinsky (1969). Community conflict involves two or more parties with incompatible goals that relate to specific value attachments. The behaviour of one party is threatening to the goals and territory of the other party, and the two parties compete with varying levels of interest and power. This power is the key issue. The alternatives for resolution vary. Because of strong value attachments, few resolutions satisfy all persons associated with each side of the conflict. The basic strategies for dealing with conflict are to:

- use it
- prevent it
- manage it in a 'how-to-do-it' framework.

The practitioner's approach role here is of **organiser** or **advocate**. Those adopting this approach assume that the fundamental source of most community problems is a lack of community member power. This approach often begins with an assessment of the local power structure.

According to Alinsky (1969), the community organiser needs to choose a problem to address and organise the community around this problem. The conflict should be small and conquerable. The goal is to demonstrate to community members that they *can* be successful. Alinsky's approach is based on the assumption that community organisations should not directly confront the power structure; instead, they should use a variety of tactics to embarrass local political leaders and demonstrate the value of power to community members. Although this approach has proven successful in low-income communities, it is unclear how effective these tactics would be in middle-class communities. More important, community organisers using this approach frequently struggle to maintain momentum in the community development process once community members have had some success (Christenson & Robinson, 1994; Green & Haines, 2002).

## CONCLUSION

Community development requires a broad base of knowledge on a variety of subjects. Knowledge includes not only data and information, but also the models or theories we use to work with such data and information. A community development team needs knowledge of:

- the community
- educational, social, economic and environmental development
- partnerships
- group process and dynamics (vested interests, political linkages and turf protection)
- team-building
- problem-solving and decision-making processes
- project management
- financial management and fund-raising
- training and skill development methods and opportunities
- organisational development and design.

We need to remember that, although no single individual must have this complete knowledge base, we do need to know whether the community development *team* has this knowledge collectively, and how we can fill any gaps that exist. Community development is a dynamic and evolutionary process, and thus we must always be open to new information and understanding about our community and the process. Knowledge by itself, however, is insufficient to the successful initiation and maintenance of a community development effort – application of this knowledge is of equal importance.

Community development increases the ability of people, as individuals and groups, to prepare for and respond to opportunities and challenges in their communities. It should belong to the community and be from the community; it should not be imposed from the outside. Whether it is a multifaceted process or a straightforward undertaking, it should lead to enhanced community living.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 What elements are necessary to a definition of community?
2 Why is community difficult to define?
3 What is the difference between growth and development? Provide some examples.
4 What are the most important characteristics in the definition of community development?

5 Compare in table format the four ways of viewing community development.
6 What do you understand when community developers refer to the 'core' of community development?
7 Which basic principles guide the practice of community development?
8 Explain the four components of the community development process and illustrate with examples.
9 Discuss the community planning process and illustrate with a case study.
10 Compare and contrast the three models of community development practice.
11 What resources would you include in a community development project?

## VOICES

All learners and their families live in communities, whether close to or a distance from schools, that are diverse in geography and history, and in economic and social characteristics. We need each other; let us work together for the empowerment of our whole community.

– Parent, Gauteng

Wherever communities are located, all communities have individuals, groups and institutions that care about children; share responsibility for children's futures; and are potentially valuable resources for children, families and schools. In turn, learners, families and schools are potentially valuable resources for their communities.

– School principal, at a community development workshop, Gauteng

The community planning process has seven easy, magic steps and I visualise all of us going up the steps in our community to eradicate poverty.

– Grade 10 teacher and community leader, Gauteng

## APPLICATION STRATEGY

Identify a community-based organisation, a community development centre or an NGO in your area. Interview several members and identify the community development process that the organisation appears to use in its work. Look at some of the specific components as well as how they implement it; that is:

- building support
- planning
- implementing and adjusting the plan
- sustaining the development.

Look at specific successes and failures experienced by the organisation. Try to identify the strengths and weakness of this organisation with reference to the community development process.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 How do I define my community?
2 Do I belong to more than one community? If so, what is the relationship between my different communities?
3 What sort of development is taking place in my community?
4 What sort of development would I like to see in my community?
5 How does or might this development improve the quality of life?
6 Would community development be a useful approach for my community to tap into and build upon its capacity?
7 What is needed for the preparation of a community development plan?
8 What do past community development success stories and failures say about my community? How can I apply this learning?

## TEN FACTS ABOUT COMMUNITY DEVELOPMENT

1 There are many ways to define community, and we may belong to more than one community at a time.
2 Community development is multi- and interdisciplinary, and education has an important role to play in this regard. Rules of engagement for educators are: **find out** about each other's interests and needs, **reach out** to potential partners in their own territory with specific offers of assistance, **spell out** the purpose and terms of joint efforts, **work out** the problems as they arise and change the plan when necessary. **Build out** from success by sharing positive results expanded on those successful beginnings.
3 Effective community development should be a long-term endeavour, well planned, inclusive and equitable, holistic and integrated into the bigger picture, initiated and supported by community members, of benefit to the community and grounded in experience that leads to best practice.
4 The primary outcome of community development is improved quality of life. Effective community development results in mutual benefit and shared responsibility among community members and recognises the connection between social, educational, cultural, environmental and economic matters. It takes account of the diversity of interests within a community and is aware of its role with regard to building capacity.
5 Community development is not a quick solution for the daily operations of the community.
6 Community development enhances the resources (people, money, infrastructure and the environment) of a community and often has sustainability and increased quality of life as its primary focuses.
7 It is important to develop partnerships where people can work together to improve their community. In a broad partnership, the community will have a structure that is sufficiently strong to make a genuine impact on various

community problems. Partnerships should involve both the people who have power and those most affected by the issue.

8 Action planning to improve the community should be supported. Planning should begin early and never stop. Annual action planning retreats can renew the group's efforts and be supplemented by regular adjustments.

9 Community development is a process that increases the ability of people, as individuals and groups, to prepare for and respond to opportunities and challenges in their communities.

10 Community development should belong to the community and be from the community. It should not be imposed from the outside. Whether it is a multifaceted process or a straightforward undertaking, it should lead to improved or enhanced community living.

## SUGGESTED READINGS

Burke, AA and Picus, LO (2001). *Developing community empowered schools.* Thousand Oaks, CA: Corwin Press.

This is a practical manual on the what, how, which and when to develop an empowered community-school partnership.

De Beer, F and Swanepoel, H (1998). *Community development and beyond: Issues, structures and procedures.* Pretoria: Van Schaik Publishers.

This is a book written by South Africans for the South African context, with a focus on the foundations of community development.

Epstein, JL (2001). *School, family, and community partnerships. Preparing educators and improving schools.* USA: Westview Press.

The title of the book is entirely apt. The book addresses a fundamental question today: How can teachers and professionals prepare themselves for creating positive relationships and productive partnerships with families? The author explores the understanding of a school, family and community partnership; gives a framework for developing comprehensive partnerships programmes after in-depth research; and supplies practical applications of linking family and community involvement in learner learning.

Gelsthorpe, T and West-Burnham, J (2003). *Educational leadership and the community strategies for school improvement through community engagement.* London: Pearson Education.

This practical book offers different international approaches (with a chapter on South Africa) to educational leadership which are focused on community engagement. It enables schools to move from being 'schools in the community' to 'schools of communities'. It covers education and schools in the community, learning in the community, school improvement, and social and economic regeneration.

Green, GP and Haines, A (2002). *Asset building and community development.* Thousand Oaks, CA: Sage.

These authors explain the application of the asset-based approach to community development and illustrate with various case studies in diverse communities.

Jehl, J; Blank, MJ and McCloud, B (2001). *Education and community building. Connecting two worlds.* Washington, DC: The Institute for Educational Leadership.

The authors explore the role of education in community-building and explain the tasks of educators as community builders.

Kretzman, JP and McKnight, JL (1993). *Building communities from the inside out.* Chicago, IL: ACTA Publications.

A strongly recommended book for those who practise in community development.

Mattessich, P; Monsey, MPH and Corinna, R (2001). *Community building: What makes it work.* Saint Paul, MN: Wilder Publishing Center.

This is a practical guide for a multidisciplinary team practising in communities.

Swanepoel, H (2002). *Community development. Putting plans into action* 3rd edition. Cape Town: Juta.

Promoting community development, this textbook is written by an expert on community development in South Africa. The case studies used and development strategies proposed are thus relevant for the diverse South African context.

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# Inclusive Education

Estelle Swart

Introduction

Understanding Inclusive Education

Inclusion in South Africa

From Mainstreaming to Inclusive Education

Inclusive Education Policies

This section attempts to explain certain key terms with a word of *caution* – the complexities of the terms cannot be reflected in one or two sentences. We need to be aware of the subtle differences between, and also the histories underlying the concepts, and more importantly the contextual applications. As we will see below, this is what Dyson (2001) refers to as the 'varieties' of inclusion.

## INTRODUCTION

The focus of this chapter is inclusion and inclusive education. The chapter begins with the argument that inclusion is an international trend with a core agenda of building a more just society, and that inclusive education is both a result of and vehicle for this reform. The complexity and contextual nature of the term 'inclusive education' is explained. Thereafter a discussion follows on the emergence of inclusive education in South Africa. A brief description of the previous education system, and the paradigm and discourse that framed educational support at the time, provides the rationale for the implementation of inclusive education. The discussion that follows focuses on the development of inclusive education in our country. This type of education implies change, and an exploration is provided of the necessity of change and the fact that such a fundamental change requires time in which to occur. Making sense of inclusive education and developing the skills to implement inclusion require an open mind, a willingness to learn, extensive reading, debate, and personal reflection about our own values, attitudes, experiences, interpretations and actions. Thus, effective implementation creates multiple challenges and opportunities for Educational Psychology.

**Inclusive education:** The practice and process of involving and meeting the diverse needs of all learners – regardless of age, ability, socio-economic background, talent, gender, language, HIV status and cultural origin – in supportive classrooms and schools. It therefore reflects a deep commitment to create an education system that values and respects diversity and supports all learners, educators and school communities to maximise participation and development of their full potential. In the process of accommodating diversity, the education system transforms by developing ways of making the same curriculum accessible to all learners. Inclusive education provides children with the opportunity to learn to live in a diverse, democratic society, and is also 'a positive force in bringing about more equitable and participatory responses to diversity' (Dyson & Millward, 2000: 170).

## UNDERSTANDING INCLUSIVE EDUCATION

Inclusive education is a much debated issue around the world. The USA, Canada, UK, the Netherlands, Italy, Australia, New Zealand, Botswana, Namibia, Lesotho and Nigeria, to name but a few, have all developed policies and legislation to implement inclusive education and support general educational reform. As a result of the new developments, researchers, advocacy groups, policy-makers, lawyers, educationists and various other professionals (including psychologists, therapists and medical practitioners) have been engaged in both international and national discussions about the what, the whom, the how, the why and the why not of inclusive education. Consequently, a remarkable number of publications on inclusion has appeared in the last two decades. These

have focused on the philosophy of inclusion; attitudes, educational reform and inclusive school culture; the effects of inclusive education on the various role-players, such as learners, educators and parents; best practices in inclusive education; and so on.

Discrepancies in the findings and differing opinions have been common. This debate resulted in special issues on inclusive education in scholarly journals such as *Educational Leadership* (1994/1995) and the *Journal for Special Education* (1995), as well as the publication of new journals, for example *The International Journal for Inclusive Education.* The topic has also been the focus of international conferences, for instance the International Conference of the United Nations in Jomtien (1990), the Salamanca Conference in Spain (1994) and conferences of professional organisations, including the International School Psychology Association (2002). It would therefore appear that the commitment to developing inclusive education constitutes a global agenda in educational reform (Pijl, Meijer & Hegarty, 1997).

There is no single accepted interpretation of the concept of inclusive education – it has various meanings for people in differing times and contexts. Dyson (2001) analyses definitions from different countries and suggests that there are 'varieties of inclusion' and that each variety pertains to a particular group of learners, has a specific interpretation of what it means to be included, assumes a precise ideal of the society which it aims to build, and has varying implications for schools. However, he (2001) identifies three broad principles spanning the varieties that could be useful to a student trying to make sense of the current literature on inclusive education. These principles include **social justice**, **educational equity** and **school responsiveness.** The core agenda (vision) of inclusive education appears to be a commitment to building a more just society and a unified, more equitable, education system by creating schools that are responsive to learner diversity and provide equal educational opportunities for all learners.

## INCLUSION IN SOUTH AFRICA

What does inclusion mean in the South African context? The National Department of Education (DoE) in South Africa released the Education White Paper 6: Special needs education in July 2001, which reflects the commitment to build an inclusive education and training system. Notably, this document does not describe inclusive education in a single definition, but opts for a more comprehensive description of its principles, thereby including all the 'varieties' identified by Dyson (2001) in the existing definitions of other countries. The National DoE (2001: 16) envisages an inclusive education and training system that:

- Accepts and respects that every learner differs in character and therefore has different learning needs, which are equally valued. These differences can be in the arenas of age, gender, ethnicity, class, language, disability or HIV status.
- Acknowledges that every learner can learn and that every learner, educator and the system as a whole needs support.
- Develops educational structures, systems and pedagogies, and changes attitudes, behaviour and learning environments to meet the needs of, and to be of benefit to, all learners.
- Maximises the participation of all learners in the culture and curricula of educational institutions and addresses barriers to participation and learning. It therefore focuses on adapting the system to meet the needs of all learners.
- Empowers learners by developing their strengths and enabling them to participate in the learning process.

**Social inclusion:** The development of every learner's competency to participate in a diverse and increasingly interdependent society, which implies more than physical presence. A community member participates in all the activities, makes valued contributions and receives the necessary support from the community (Hamil & Everington, 2002). The essential principle of inclusion is the creation of a social system that values and embraces human diversity.

The vision, or the dream, for inclusive education in our country can thus be described as a practice of promoting the participation and competence of every learner, regardless of age, gender, ethnicity, language, class, disability and HIV status. This can only be realised in a unified education system wherein all role-players work together and are supported in creating learning communities that meet the diverse learning needs of every learner. The shared dream is that everyone can become contributing and valued citizens in a diverse, changing society. Inclusive education therefore serves as a vehicle for developing a more inclusive society in our country.

When considering the origins of inclusive education, and the reasons for its implementation in South Africa, it is again important to bear in mind global and societal changes, general educational reform and contextual issues. Since 1994 the new democratic South Africa has been in a process of political, economic, social and educational transformation aimed at developing a more just and egalitarian society. Educational reform more specifically is aimed at redressing past inequalities and creating equal opportunities in a single system of education that will provide quality education and meet the needs of all learners (DoE, 1995).

## FROM MAINSTREAMING TO INCLUSIVE EDUCATION

The former education system, used during the apartheid era (1948–1994), promoted segregation by providing separate education for the four designated racial groups: whites, Indians, blacks and coloureds. This education system constituted a complex organisational structure of

**Mainstreaming:** The former practice of placing learners with disabilities in classrooms with their peers who do not have disabilities for part or all of the school day. These learners were 'allowed' to be mainstreamed only if they could 'keep up' and 'fit into' the general education classroom and school, with limited or no support or accommodation. Proponents of mainstreaming assumed that a child must earn this opportunity by demonstrating the ability to keep up with the work content as successfully as the rest of the class. The limited support in the mainstream school system focused on changing the learner so that he could fit into the existing system. Relevant South African literature mentions 'mainstreaming by default', which refers to a large group of learners in the mainstream that experienced learning difficulties but did not receive any form of support because the system could not provide it (Donald, 1996: 83).

17 departments, all under central state control. Functions and services tended to be duplicated, and there were extreme disparities in funding and resource provision between the departments and therefore between racial groups. For whites, there were also separate departments for general education and special education. The special education system established separate classrooms and schools for various categories of disabilities, and learners were shifted from the mainstream into classrooms and schools catering for such disabilities. Black learners, by contrast, were not entitled to free and compulsory basic education. The disparities were even more evident in the case of education support services. As a result, the privileged minority received more services than the disadvantaged majority, who were in the mainstream 'by default', because the education support was non-existent (see Donald, 1996; Du Toit, 1996; and Lomofsky & Lazarus, 2001 for a more comprehensive account of the historical development of education in South Africa).

It is also important to understand the paradigm and discourse that framed the education support services and procedures that existed during this era. Educational support was characterised by a strong medical perspective, also referred to as a 'psychomedical paradigm', a 'child-deficit model' or 'the individual gaze' (Dyson & Millward, 1997: 53; Thomas & Loxley, 2001: 2–3, 38). Learners who experienced learning difficulties or disabilities were referred to multidisciplinary teams that tested the learners and diagnosed or labelled their problems. They used clinically described admission criteria based on categories of disability – for example schools for children with cerebral palsy, the deaf and hard-of-hearing, the blind and partially-sighted – for placement in special education, if it existed, and had control over the decisions taken. The resultant curative interventions and education focused on 'within child' factors with a view to changing the child to fit into the world as they find it – 'a world built by non-disabled people to meet the needs of non-disabled people' (UNESCO, 2001: 21).

**Special education:** Education of a specialised nature designed specifically to suit the needs of children with disabilities. It can be seen as an alternative for mainstream education and can include education in special schools or classes.

These services were provided external to the mainstream of education (segregation), which isolated the individual from society and community (Hamil & Everington, 2002). Consequently, the rationale, quality and effectiveness of special education have often been questioned (Skrtic, 1995; Donald, 1996; Kriegler, 1996; Ainscow, 1999). As early as 1981, the De Lange Commission suggested a move away from the narrow labelling of disability towards a broader scope of special educational needs. This elicited the recognition that 'special needs' arise from internal factors, such as disability, as well as external (social, systemic and structural) factors. It also acknowledged the interaction between factors that affected the majority of learners (Lomofsky & Lazarus, 2001). There was clearly a need

for a more equal and cost-effective system of educational support and a new way of conceptualising educational needs and support. This provided both the rationale and momentum for societal and educational change.

**Special educational needs, or special needs:** Learning needs that arise from intrinsic factors, such as disabilities, and extrinsic factors, such as social, systemic or financial factors. Inclusionists regard this concept as a descriptor that generates pity and reinforces negative perceptions and discrimination. Such a descriptor often leads to segregation.

### People-first language

Inclusionists believe that words simultaneously reflect and reinforce attitudes and perceptions. Many 'disability labels' bring to mind images and feelings that perpetuate negative stereotypical perceptions. These perceptions in turn create a powerful attitudinal barrier to inclusion. The words we use today to describe disabilities and people who have disabilities are different from the words we used in the past. One dramatic change has been the development of people-first language. For example, it is more respectful to say 'a person with a disability' or 'a child with autism' than 'a handicapped person' or 'an autistic child'. The reason is that we must recognise the person first and acknowledge that disability is simply one aspect of a person. Other examples are as follows:

- A person **has a physical disability** – she is not 'crippled' or 'lame'.
- A person **uses a wheelchair** – he is not 'wheelchair-bound', a 'wheelchair-person' or 'confined to a wheelchair'.
- A person **has epilepsy** or **has diabetes**, instead of 'suffering from epilepsy' or 'is diabetic'.
- A person who has lost some of her hearing ability **has a hearing impairment.**
- A person who cannot hear at all might refer to herself as **deaf.** Deaf people often prefer to be called deaf because they form part of the Deaf culture, which has a distinct language, history and set of customs.

We should never use words such as 'retard', 'defective', 'deaf and dumb', 'crazy', 'psycho', 'moron', 'imbecile' or 'idiot'.

### Related terms that may create confusion

When reading international literature about inclusive education for the first time, be mindful of the history and assumptions underlying concepts that represent the 'varieties' of inclusion. The following terms will colour assumptions and opinions in a specific way:

**Continuum of service delivery:** The range of support services and programmes provided by the education system to meet the unique needs of learners, more specifically learners with disabilities. The options may include full-time placement in a mainstream classroom with consultation from specialists or co-teaching with a special educator, part-time placement in a special education classroom, full-time placement in a special education classroom in a mainstream school or placement in a special school.

**Exceptionalities:** A range of disability categories including physical impairments, learning disabilities, sensory impairments, emotional disorders, etc. This term carries the same connotation as 'special'.

**Full inclusion:** The view that all learners with disabilities should be educated with their non-disabled peers all the time.

**Individualised educational programme:** Legislation in some countries requires a written plan developed to meet the specific needs of children with disabilities.

**Integration:** Often used in conjunction with, or as a synonym for, mainstreaming. As opposed to segregation and placement of learners with varying degrees of disabilities or difficulties in special education, integration refers to a limited attempt to create access to mainstream schools (Pijl, Meijer & Hegarty, 1997; Dyson & Forlin, 1999). It is seen as an effort to find ways of supporting diverse learning needs through additional inputs or facilities in essentially unchanged mainstream schools and classrooms (Dyson & Millward, 2000). Learners were therefore placed in separate classes in the mainstream environment, or were 'pulled out' by specialist personnel for specialist interventions. This attempt often resulted in a 'watered-down' curriculum. However, even if support was provided, the focus of that support continued to be on changing the learner to fit into the system.

According to Ainscow (1999), the deficit-thinking reflected in mainstreaming and integration maintains a belief that some learners are 'them' and therefore not part of 'us'. Inclusive education is an attempt to change such a paradigm.

**Least restrictive environment:** An appropriate educational setting most like that of peers without disabilities that meets the learning

needs of the individual child with a disability. The term relates to the continuum of service delivery.

**Resource room:** A classroom (in an integrated school) in which learners receive special education for part of the day.

## INCLUSIVE EDUCATION POLICIES

The first democratic elections in 1994 introduced a new era in the history of South Africa. The newly elected government began to commit itself to developing a country that respects and values diversity and provides equal opportunities for all. The Bill of Human Rights (in the Constitution of 1996) recognises education as a basic human right of every citizen, but more importantly propounds the right to equal educational provision for all learners, whatever their needs and differences. The South African Schools Act of 1996 (SASA 1996) embodies these principles by clearly stating that no learner can be denied admission to a school on any grounds, including disability or language. This Act mandates educational support and provides the parent with the right of choice in the placement of their child. The broad framework for the process that is required to transform the education system into one that will meet the needs of each person is presented by the White Paper on Education and Training (DoE, 1995). On the basis of the Department's commitment, the National Commission on Special Needs in Education and Training (NCSNET) and the National Committee on Educational Support Services (NCESS) were set up in 1996 to investigate and make policy recommendations on all aspects of 'special needs and support services' in education and training in South Africa (DoE, 1997).

The Commission's report, entitled 'Quality education for all – Overcoming barriers to learning and development', was released in 1997 (see DoE, 1997 for the comprehensive report). The Commission viewed the terminology 'learners with special educational needs' as problematic and suggested identifying the 'barriers to learning and development' as those factors that obstruct teaching and learning. A systems change approach was recommended, which locates the barriers on different levels of the system. This includes:

- Factors relating to **individuals**, which could refer to learners' specific physical, mental, sensory and/or neurological facilities, learning styles and the needs of any learner, including the specific needs of children with disabilities. It also includes educators' attitudes, values and personal factors, as well as teaching approaches.

- A range of aspects related to the **curriculum**, including relevance of content, medium of instruction, modes of communication, use of appropriate material, classroom management and organisation, teaching style and methods, assessment procedures, pace of teaching, learning materials and resources available.
- The physical and psychosocial **environment** of learning and teaching, which include accessible and safe buildings as well as management approaches, policies, school culture and ethos. It also relates to availability and accessibility of supportive infrastructures.
- Conditions and relationships relating to the **home environment**, including parent involvement in the education and support of learners, family structure, relationships and values, ethnic and socio-economic background, for example unemployment, poverty, lack of access to basic services, lack of or overcrowded housing – all of which impact negatively on the well-being of children.
- The **broader social context** that impacts on the individual and other systems, which either sustain or complicate learning and teaching, for example socio-economic factors, community values, support, local and national policies, and legislation.

These barriers do not function in isolation; they interact and impact on one another. The Commission (DoE, 1997) therefore suggested a more comprehensive approach to understanding the barriers to learning and envisaged an education system that will minimise, prevent and remove barriers to learning and participation and provide effective education for all. Inclusive education therefore concerns reducing all types of barriers and developing schools and training institutions that are capable of meeting the needs of all learners. This will in turn contribute to the wider democratic notion of building a more just society for all South Africans, a society that embraces diversity and values and respects every member.

In 1999, the DoE released the Green Paper on Emerging Policy on Inclusive Education as a response to the Commission's report. After public input the White Paper 6 (referred to above) was drafted and released in 2001.

It is important to realise that inclusion, and more specifically inclusive education, is an ongoing process, and not a fixed state. The DoE therefore developed a 20-year plan for implementation. The Draft guidelines for the implementation of inclusive education (DoE, 2002), which outlines the plan for the initial phase, elaborates the point with the following strategies:

- Special schools will be strengthened as resource centres to provide high levels of support to learners who qualify for high intensity input. These

schools will also collaborate with district support teams to provide specialised professional support to full-service schools and regular schools in curriculum adaptation, assessment, instruction, classroom management and the development of learning support material.

- The role of the educators in special/remedial/aid classes will be changed to provide learning support services to educators that include adaptation of Curriculum 2005, assessment and development of learning materials, and advice on how to identify and address barriers to learning.

**Learning support:** Comprises those activities that increase the capacity of the system to respond to the diverse needs of all the learners (Booth, Ainscow, Black-Hawkins, Vaughan & Shaw, 2000). The activities are aimed at developing learning and participation, and could include well-planned educator development and continuous support activities, parent involvement, collaboration of all role-players for the benefit of the learner, curriculum adaptation, peer support, therapy and counselling. (The term is not to be confused with 'learner support', which attempts to change the learner to fit into the traditional system.)

Full-service schools will be developed. These are ordinary schools that will be equipped to address the full range of learning needs for learners who require moderate to high levels of support alongside learners with ordinary support needs. Thirty schools will be established in the pilot phase, with an aim of 500 schools in the final phase. These schools will support both learners and schools in the area.

- Provision of educational support will be based on the intensity and nature of support required, and not on the category of disability. The process of support provision will be dynamic because a learner can receive high intensity input, for example learn to read Braille in a special school, and then be moved back to a regular or full-service school, depending on the other forms of support required.
- The capacity of district-based support teams will be developed. These teams will comprise an integrated professional support service, provided by specialist/professional education officials working in the district support structures, specialist support personnel and educators from special schools, and members of the school community (e.g. psychologists, counsellors, therapists, health and social workers, learning support personnel, educators and officials) who provide administrative, curriculum and institutional development support.
- School-based support teams will be initiated and developed at every school. These teams will meet regularly and provide support to the educators and parents to develop inclusive practices at local schools.

## CONCLUSION

It is clear from the above that inclusion requires the courage to be open to new learning as well as innovation to develop new ways of thinking and doing. There are many exciting challenges and opportunities for Educational Psychology in developing an inclusive education system in South Africa. It provides the opportunity of sharing knowledge and skills with educators and parents so that *every* learner can benefit from support.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 What is the paradigm shift towards inclusion?
2 How would you define these concepts:
   (a) inclusion and inclusive education
   (b) integration
   (c) mainstreaming?
3 Identify and describe the values of inclusion.

## VOICES

My understanding today of this concept 'inclusive education' is so much broader. I now see it as a philosophy which if embraced would lead to the transformation of society. It is about viewing each and every person as special and seeing barriers as anything from a sore tooth on the day of an exam to an emotional issue, and including the more severe mental and physical disabilities ... so I guess what I am saying is that I have undergone a change in attitude as a result of change in my understanding of the concept 'inclusion'.

– Masters' degree student, Gauteng (following 18 months of exposure to the reading and practice of inclusion)

Education is the great engine to personal development. It is through education that the daughter of a peasant can become a doctor, that the son of a mine worker can become the head of the mine, that the child of a farm worker can become the president of a great nation. It is what we make of what we have, not what we are given, that separates one person from another.

– Nelson Mandela, former President of South Africa

## APPLICATION STRATEGIES

A strategy is a plan of action rather than a quick solution. Be cautious not to oversimplify a complex matter.

### For the school

An inclusive school embodies the concepts of **community**, **diversity** and **collaboration** based on the principles that everyone belongs and is valued in the school, and has access to the same curriculum. Inclusion is a philosophy supported by core social values such as justice, tolerance, concern (care) and mutual respect. Successful implementation of inclusion therefore requires fundamental changes in the way people feel, think and act at school. These changes have their source in the hearts and minds of people. There is no blueprint for this process – it is unique to each school and classroom. However, there are indicators that a school can use in the following dimensions:

**Collaboration:** People working jointly and willingly as partners in sharing the setting of goals, the solving of problems and the achievement of those goals. The key qualities that support inclusive learning are communication, openness, flexibility and a commitment to collaborative problem-solving (Corbett, 2001). These are essentials of collaboration, which is frequently described as the element critical to the effective implementation of inclusive education. Collaboration in inclusive education takes place with colleagues, specialist professionals, principals, parents, siblings, families and, where applicable, community members in an attempt to address barriers to participation and the diverse needs of learners. Collaboration teams can include school-based support teams, individual learner support teams, team teaching and district-based support teams (Hamil & Everington, 2002).

- creating inclusive cultures, which build 'community' and establish inclusive values
- producing inclusive policies, which develop a school for all and support diversity
- developing inclusive practices which support learning and mobilise resources (Booth et al., 2000).

There are helpful resources to use as guidelines, e.g. the *Index for inclusion* (Booth et al., 2000), the *Open file on inclusive education* (UNESCO, 2001) and material on the Internet (see below). You can download 'Improving education: The promise of inclusive schooling' from the website http://www.edc.org/urban and adapt the Visit Guide in order to analyse a school in your local community. These resources provide materials to support schools in developing inclusive education.

## For the educator, parent and practitioner

As we are taking the first steps in developing inclusive education, principals, school governing bodies, parents and educators need to familiarise themselves with the policy and guidelines for implementation (see Suggested readings). It is also important for practitioners to attend in-service training workshops in order to integrate what they have learned into their existing framework.

Inclusive education entails a commitment to developing inclusive classrooms as communities. A 'community' of learners is an educational setting in which learners are encouraged to care both for each other and for their learning by developing shared values and beliefs. Strategies that foster the development of caring classroom communities include:

- an appreciation of difference through a curriculum that emphasises friendship, caring and respect for diversity
- cooperative structures that promote the value of learning together and helping others
- classroom practices that teach self-control, problem-solving and basic values
- the action of linking instruction to real situations to expand the concept of classroom, curriculum and community (McGregor & Vogelsberg, 1999).

Change starts with the attitude of the individual teacher and the relationships in the classroom. Corbett (2001) identifies the following distinguishing qualities in teachers that promote inclusion:

- respect
- empathic listening
- compassion
- recognition of individual differences
- fairness
- understanding
- positive thinking
- sense of humour

- seeking help, when help is needed
- flexibility
- open communication.

## THE REFLECTIVE TEACHER/EDUCATOR/PRACTITIONER

To test your knowledge of this chapter, consider the following questions:

1 Now that I know that inclusion is based on the belief that every learner can learn and that every teacher can teach every learner, what are my beliefs about teaching and learning? How can I change my beliefs to become more inclusive?
2 If inclusion is based on the values of equality, liberty, respect for diversity and care, how can I cultivate these values in my classroom and school?
3 How can I develop collaborative relationships with colleagues, professionals and parents?
4 Realising that inclusive education is about celebrating difference and addressing the diverse needs of every learner (not just those with disabilities), what will I now do differently?

## TEN FACTS ABOUT INCLUSIVE EDUCATION

1 Inclusion is based on the belief that everyone can learn and has a right to quality education.
2 One of the best predictors of the success of inclusive education is the attitude of the educator.
3 Inclusion is not just about disability, but also about the diverse learning needs of every learner.
4 Inclusion is not about changing the individual, but rather about changing the systems, environments, behaviour and practices to accommodate the needs of the individual learner.
5 Inclusive education is not merely an additional function; it requires fundamental change of school cultures and practices.
6 Inclusion concerns not simply placement in the mainstream, but also changing schools, policies, practices and attitudes that will promote participation and support the individual learning needs of every learner and educator.
7 For inclusion to be effective, the curriculum and instructional strategies must be individualised and made more meaningful for everyone.
8 Inclusion cannot be successful without collaboration and support for and from everyone involved, including learners, educators, schools, parents and communities.
9 Inclusion is a process that takes time to develop and that unfolds differently in different contexts.
10 Inclusive education serves as a vehicle for developing an inclusive, just society.

## SUGGESTED READINGS

### Policy documents

Department of Education (DoE) (1997). Quality education for all. Overcoming barriers to learning and development. Report of the National Commission on Special Needs in Education and Training and the National Committee on Education Support Services. Pretoria: DoE.
This document reports the findings and recommendations of the National Commission and the National Committee, appointed by the Ministry of Education in 1996, to investigate and make recommendations on all aspects of 'special needs and support services' in education in South Africa. The report describes the key barriers to learning and development, and analyses the international inclusion policies and practices, as well as the national policy and legislative framework. The document also outlines a framework and implementation strategies for the future.

Department of Education (DoE) (2001). Education White Paper 6. Special needs education. Building an inclusive education and training system. Pretoria: DoE. (Available on the Internet website http://education.pwv.gov.za under legislation, or contact the National Department of Education, Pretoria for a hard copy.)
This is a policy document that defines what inclusive education is and outlines the process of implementation in South Africa.

### Books

Donald, D; Lazarus, S and Lolwana, P (2002). *Educational psychology in social context* 2nd edition. Cape Town: Oxford University Press.
This South African publication draws on educational psychological theories, such as the ecosystemic perspective, constructivism and the developmental theories of Erikson, Piaget and Vygotsky, in order to address some of the critical challenges that impact on children's learning and development in the South African context. From an ecosystemic perspective, it addresses the realities and challenges of people in their social context, illustrated by local case studies and examples. The book provides a broad description of what quality in education means and why educational transformation is important in South Africa. It then outlines how schools, classrooms and communities can become health-promoting and inclusive settings. Addressing social issues, particularly in education, the authors are concerned with contextual disadvantage and social and interpersonal problems, including abuse, violence and discrimination. The final section of the book provides a framework for understanding

and addressing disabilities and learning difficulties in inclusive education.

Engelbrecht, P; Green, L; Naicker, S and Engelbrecht, L (eds.) (1999). *Inclusive education in action in South Africa.* Pretoria: Van Schaik Publishers.

The aim of this book is to guide educators and other professionals on how to implement inclusive education in South African classrooms and the wider context of the school system. It informs the reader about the historical development, philosophy and politics of inclusive education and outlines a metatheoretical framework for understanding the changes in society and more specifically in education. It also describes strategies and practices for developing and supporting inclusive classrooms and schools.

Sands, DJ; Kozleski, EB and French, NK (2000). *Inclusive education for the 21st century.* Belmont, CA: Wadsworth/Thomson Learning.

This comprehensive textbook challenges the status quo in education by introducing the philosophy of inclusive school communities, which is described as both a process and an outcome of providing quality education to all children. The ecological approach serves as the framework for describing family-school involvement, collaboration in the inclusive school community, and a learner-centred approach to understanding educational needs. The strategies for inclusive education focus on support for schools and classrooms, assessment, curriculum development and instructional strategies for diverse learning needs.

## Internet websites

http://landmark-project.com/ca/index.php3

http://unesco.org/education Salamanca Statement and Framework for Action on Special Needs

http://www.cec.sped.org

http://www.circleofinclusion.org

http://www.disabilityisnatural.com

http://www.edc.org/urban

http://www.eparent.com

http://www.gacec.org

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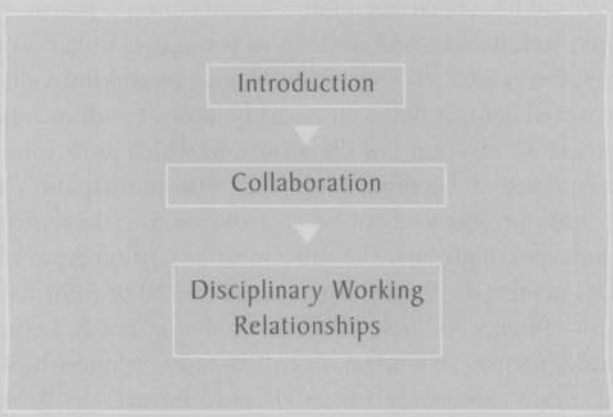
# Trans-disciplinary Collaboration

Petra Engelbrecht



## INTRODUCTION

Effective collaboration in a group context has the potential to create high quality outcomes in psychological interventions and support in schools, communities and families. There are several approaches to collaborative group work which depend, for example, on the disciplinary relationships in the group. Disciplinary approaches can be identified as multidisciplinary, interdisciplinary or trans-disciplinary. This chapter provides an in-depth discussion of trans-disciplinary collaboration.

We all have been born into a social context. The manner in which we think, feel, behave and develop as persons is linked to the social structures, forces and relationships with groups and individuals that make up this social context. We continuously interact with one another, and if we conduct an inventory of the groups to which we belong and with which we interact, it becomes clear that our participation in these groups accounts for nearly all our social activities. Social scientists have described many types of groups. The three most important types with regard to our social context are family, friends, and formal or informal work groups or teams (Friend & Cook, 2000; Donald, Lazarus & Lolwana, 2002). This chapter focuses in general on collaborative relationships in work groups and, more specifically, on an effective interaction strategy to follow in disciplinary collaboration, namely trans-disciplinary collaboration.

## COLLABORATION

The term 'collaboration' is used frequently, especially in professional interactions or discussions about emerging ways to support schools, teachers, children and their families. Despite this, few clear definitions of collaboration are available, with the result that the concept has been mistakenly seen as a synonym for other concepts such as consultation. **Consultation** means, for example, to care, counsel, advise or deliberate formally, while **collaboration** means to work jointly (especially in an intellectual endeavour), to assist, to interact or to associate (Dettmer, Dyck & Thurston, 1996). Furthermore, collaboration can be described as:

- either formal or informal joint planning, decision-making and problem-solving directed toward a common goal
- not an end in itself, but rather as a catalytic process used in interactive relationships among individuals working together toward a mutually defined concrete outcome
- a dynamic and ongoing process
- the sharing of ideas and working together across settings within an atmosphere of mutual respect and support, trust and open communication, consensual decision-making and joint ownership

- involvement of co-equal parties, which does not imply that the individuals enter into the relationship holding the same sets of experiences, knowledge or skills; rather it means that they each bring unique perspectives, experiences, knowledge bases and personal belief systems that hold equal weight and value.

> It is clear that collaboration can occur only when it is used by people who are engaged in a specific process or task. The concept conveys *how* the activity is occurring, that is, it conveys the nature of the interpersonal relationships occurring during the interaction. Knowing what collaboration is and how it relates, for example, to educational psychological interventions can lead to clear and effective implementation in professional work groups and better directions for intervention strategies when the need arises (Idol & West, 1991; Givner & Haager, 1995; Stainback & Stainback, 1996; Stanovich, 1996; Friend & Cook, 2000; Sands, Kozleski & French, 2000).

Participating in groups does not necessarily imply that participants collaborate. People come to accept collaboration; it cannot be imposed. Some people naturally seek collaboration because it fits with the way they prefer to work, and others come to appreciate the benefits of collaboration only after they see it working. Pugach and Johnson (2002: 16–18) identify certain qualities of effective collaborative professionals. They are people who:

- recognise that the goal is complex and requires more than a combination of individual efforts, and who honour the creativity generated through interaction with others
- value the establishment of trust and the intellectual challenge of working together
- value their personal growth as a result of participating in the collaboration.

**Multidisciplinary collaboration:** A number of perspectives and disciplines are represented within the group. The professionals from different disciplines who comprise the group maintain independence from one another as they contribute their unique perspectives and information; they also provide support independently to the client. The guiding philosophy is that team members recognise the importance of contributions from other disciplines (Lacey & Lomas, 1993).

## DISCIPLINARY WORKING RELATIONSHIPS

Many approaches to collaborative group work have developed over the years. The group's disciplinary working relationship is one dimension that may be used to distinguish between these different approaches (Friend & Cook, 2000). Although collaboration is part of the professional modern world, historically people worked in a highly isolated rather than a collaborative environment. The concept of collaboration began to be

used in the 1960s to describe the need for greater parity among participants in professional interaction. Professionals increasingly started to work as partners, coming together on an equal footing to solve problems, and recognising that their joint efforts are more powerful than the efforts of either one in isolation (Pugach & Johnson, 2002).

Although it is not often acknowledged, a common problem faced by professionals involved in developing and implementing intervention programmes for children is identifying to whom they can turn for support and advice. More recently, for them, collaborating on various levels with colleagues from different disciplines, who approach problems differently owing to their educational or disciplinary backgrounds, has proved to be successful. Three collaboration models have evolved over the years, in which collaboration occurs along a continuum from little to great collaboration (Elias, Weissberg & Zins, 1996; Friend & Cook, 2000). The models are multidisciplinary, interdisciplinary and trans-disciplinary.

**Interdisciplinary collaboration:** Professionals from different disciplines perform related, specialised functions independent of each other but communicate more regularly than in multidisciplinary collaboration. Group members are willing to share their plans with one another in their efforts to develop and work toward a collective goal of service coordination. By doing so, they are more likely to develop and pursue interventions that support and complement one another.

The concept of a **multidisciplinary** situation implies that a number of perspectives and disciplines are represented within the group. The professionals from different disciplines, who comprise the group, maintain independence from one another as they contribute their unique perspectives and information, and also provide support independently from one another to the client. They communicate simply to exchange information about their independent work, and what collaboration occurs is minimal. The guiding philosophy in multidisciplinary collaboration is that team members recognise the importance of contributions from other disciplines (Lacey & Lomas, 1993). Figure 13.1 illustrates this model.

As in multidisciplinary collaboration, professionals from different disciplines perform related, specialised functions independent of each other but they communicate more regularly in **interdisciplinary collaboration**. Group members are willing to share their separate plans with one another in their efforts to develop and work toward a collective goal of service coordination. By doing so, they are more likely to develop and pursue interventions that support and complement one another. This prevents gaps from occurring in the provision of support or intervention services (Friend & Cook, 2000). Figure 13.2 provides a visual representation of such a model.

**Trans-disciplinary collaboration:** This is the most collaborative of the three disciplinary group approaches. Here, professionals perform their related tasks interactively and each member uses his and her particular skills – they share their expertise and ideas, and support one another.

**Trans-disciplinary groups** are the most collaborative of the three disciplinary group approaches. Here, professionals perform their related tasks interactively and each member uses his and her particular skills – they share their expertise and ideas, and support one another. A designated group member or members, usually the teacher and/or the parents, carry out the actual intervention with support services provided by other team members, as necessary. The trans-disciplinary concept is *unique* in

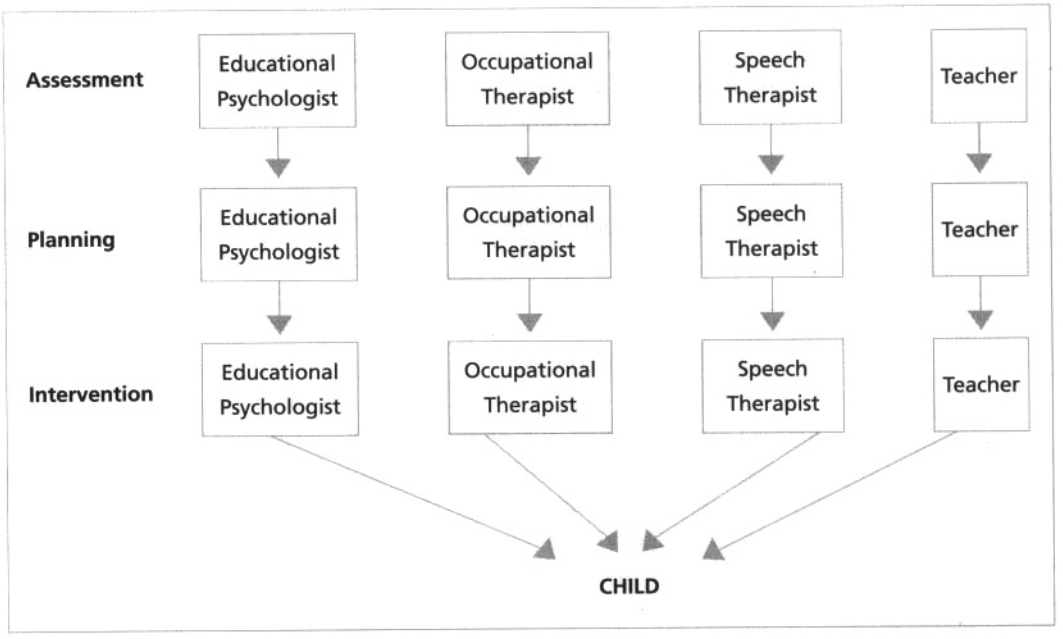



Figure 13.1 Lines of interaction and communication in multidisciplinary collaboration (adapted from Coling, 1991)

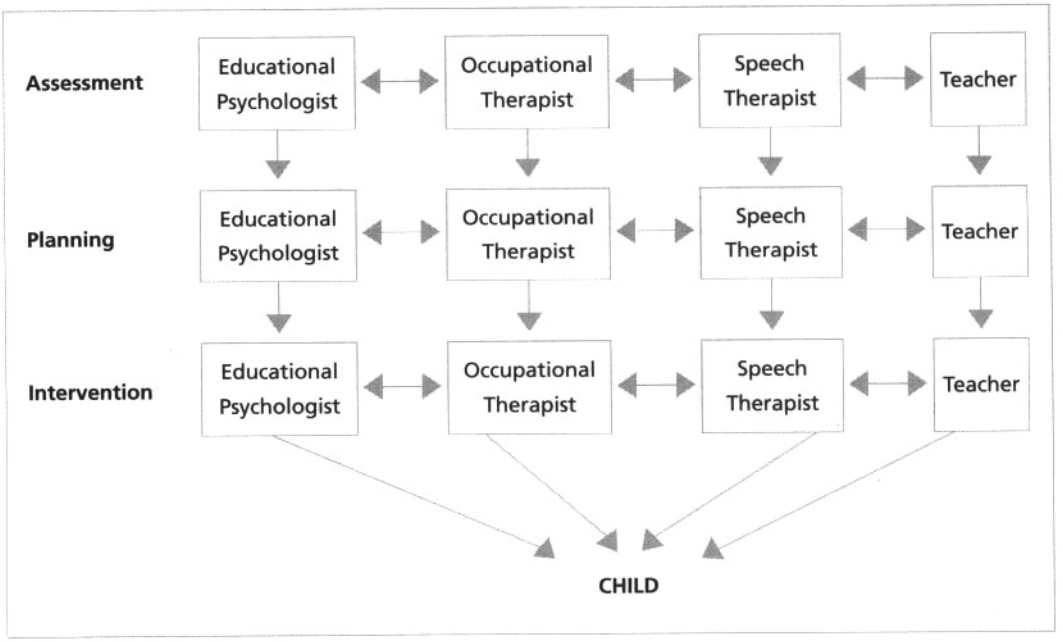



Figure 13.2 Lines of interaction and communication in interdisciplinary collaboration (adapted from Coling, 1991)

that it *genuinely indicates the transcendence of professional boundaries.* By making a commitment to teach, learn and work together across discipline boundaries to implement a unified intervention plan, trans-disciplinary collaborative groups display three fundamental characteristics of effective collaboration and a sense of community:

1 They emphasise the 'belongingness' and meaningful participation of all group members in spite of their differences in training and experiences.
2 They work to create affiliations and alliances among group members.
3 They foster mutual emotional and technical support of one another (Sands et al., 2000).

Respect for the equal weight of diverse experiences and preferences is thus inherent in trans-disciplinary collaboration. Lines of communication focus on regular group meetings where continuous transfer of information, knowledge and skills between group members can occur, as illustrated in Figure 13.3.

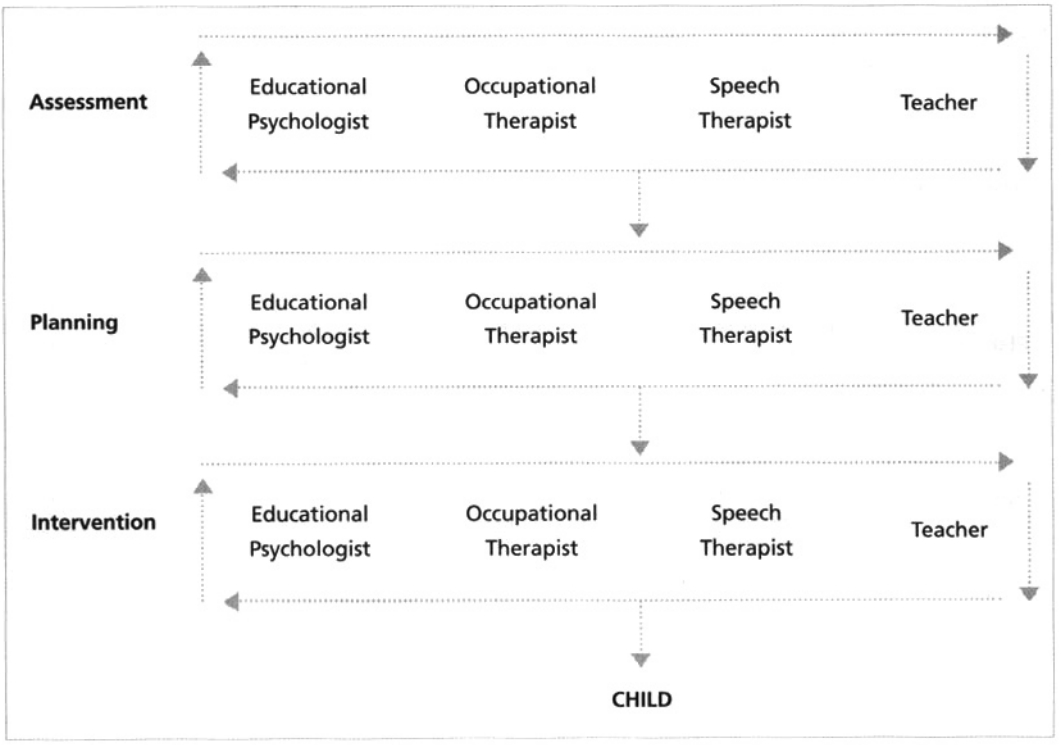



Figure 13.3 Lines of interaction and communication in trans-disciplinary collaboration (adapted from Coling, 1991)

## Examples of trans-disciplinary collaboration

### *Early intervention for children*

Trans-disciplinary collaboration is ideally suited to integrating therapeutic interventions into the natural events in a young child's day, and allows for the inter-related developmental needs of children to be addressed. For example, motor skills affect the child's ability to communicate and to express cognitive understanding, while cognitive skills affect the language the child understands and the ideas that can be communicated, as well as the child's perception and demonstration of skills. Social skills, in turn, influence the child's acquisition of cognitive abilities, interaction and communication with others (Linder, 1993).

Through the sharing of information, ideas and skills across disciplines and the integration of all areas of developmental components into the various contexts of the child's day, generalisation of skills in functional settings is enhanced. Such a trans-disciplinary approach includes these role-players: an educational psychologist, an occupational therapist, a speech therapist, a teacher and parents. For example, after receiving training and technical assistance from the speech therapist in specific language interventions, and from the educational psychologist in specific cognitive development interventions, a parent or teacher can combine it with their own expertise and implement the intervention. Success is more likely to occur with all group members sharing information and skills, and working together to create, monitor and evaluate an early intervention programme, with the teacher and/or parents as the primary interventionist for a child (Coling, 1991; Linder, 1993).

### *Inclusive schools*

Although collaboration, including trans-disciplinary collaboration, is part of educational transformation in South Africa today, teaching has traditionally been seen as a highly isolated profession, and collaboration within schools was rare. Where necessary an expert model of consultation was used, characterised by a one-way channel of communication in which the consultant as expert (for example, an educational psychologist) gave direct prescriptions to teachers regarding the learning support strategies they needed to implement. Increasingly, the concept of providing direct prescriptions to teachers began to be seen as inappropriate, precisely because it did not seem to fit the basic principles of collaboration, namely that professionals, including teachers, with different kinds of expertise should come together as equals to solve problems (Pugach & Johnson, 2002).

Typifying trans-disciplinary collaboration in inclusive school-based and district-based support groups today is a desire for collaborative inter-

actions in which educational psychologists, school counsellors, speech and occupational therapists, and teachers refrain from being overly prescriptive by providing expert advice, and in which they work together with colleagues to meet the needs not only of children who are experiencing barriers to learning but of all the children in inclusive schools.

## CONCLUSION

In order for a trans-disciplinary group to collaborate effectively, all group members must share a commitment to this approach. Group members must be willing to expand their 'traditional' professional role to include knowledge about and responsibilities for components of other disciplines, and to release knowledge about and some responsibilities for components of their own discipline to other group members (Coling, 1991; Linder, 1993; Sands et al., 2000). Many professionals who are unfamiliar with the trans-disciplinary collaborative approach may initially hesitate to allow other group members to take on what they view as their responsibilities. The ongoing support that each group member provides to the other is critical.

Through provision of information, demonstration of techniques and joint problem-solving, the trans-disciplinary team can maintain a dynamic collaborative approach. Group members who are effective at trans-disciplinary collaboration are reflective about their own professional practice and challenge themselves to grow and improve their practice as they contribute to the improved practice of others in the group. Professionals cannot contribute to the goal of improved interventions in trans-disciplinary collaboration without being aware of the quality of their own individual practice and their responsibility for it. This is what being a reflective professional means.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 Think of a time when you worked with a group of your peers in your class. What was the situation like? Were your actions collaborative?
2 What are the possible advantages of trans-disciplinary collaboration in inclusive schools?
3 How would you describe trans-disciplinary collaboration in early intervention for children?

## VOICES

We don't undermine each other like before, because we realise that we all need to collaborate – teachers, therapists and parents.

– Teacher

Collaboration will only work if everyone takes hands, at home and at school.

– Parent

## APPLICATION STRATEGIES

The strategies are as follows:

- Schedule continuous sessions for reflection for professionals working together. Measure progress in terms of the quality of **collaboration**.
- In a school, create classroom activities that will ensure greater success if all the learners collaborate. Have professionals observe and comment on the way in which collaboration between young learners can be strengthened.
- Illustrate collaboration through play-based activities – with professionals and learners alike.
- Draw graphical decision-making trees. Have individual professionals draw up the decision-making tree that they would follow when working alone. Follow this with the creation of a collaborative decision-making tree, while working with the same challenge.
- Use asset maps to illustrate the importance of trans-disciplinary collaboration.
- Signify instances where professionals provide technical, emotional and functional support to one another.
- Practise role release by initiating role-play, physically changing chairs during trans-disciplinary discussions and verbally indicating an awareness that expertise lies with a variety of individuals.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1. After working through this chapter, how has my view of collaboration and its importance for an educational psychologist or teacher changed?
2. What areas related to Educational Psychology do I think require collaboration in order for the process of reform to be facilitated in support of all learners?
3. Am I willing to consider and experiment with different ways to collaborate with colleagues?
4. What is my level of comfort about collaborating with someone with a different professional background?

## TEN FACTS ABOUT TRANS-DISCIPLINARY COLLABORATION

1 Effective trans-disciplinary collaboration has the potential to create high quality outcomes in educational psychological support.
2 Trans-disciplinary collaboration is the most collaborative approach in therapeutic support.
3 It is unique in that it transcends professional boundaries.
4 Team members and parents can develop a collaborative support plan based on the child and the family's needs, priorities and resources.
5 Trans-disciplinary collaboration emphasises the meaning of full participation of all group members.
6 Affiliations and alliances among group members develop in this type of collaboration.
7 Inherent in trans-disciplinary collaboration is recognition of, and respect for, the equal weight of diverse experiences.
8 Lines of communication keep open through regular group meetings.
9 There is a continuous transfer of information, knowledge and skills between group members.
10 Trans-disciplinary collaboration is ideally suited to integrating therapeutic support in early intervention.

## SUGGESTED READINGS

Coling, MC (1991). *Developing integrated programmes: A trans-disciplinary approach to early intervention.* Tucson: Therapy Skill Builders.

This text discusses the development of a trans-disciplinary approach to early intervention. It includes a description of a sensimotor approach to programming for infants and young children, and the way in which a trans-disciplinary team can develop within this context. It also focuses on how the team's members can work together to reinforce skills in all development areas.

Dettmer, PA; Dyck, NJ and Thurston, LP (1996). *Consultation, collaboration and teamwork for students with special needs.* Boston: Allyn and Bacon.

This book is designed to serve as a bridge between theory and practice. It includes background information and field-tested recommendations to help teachers, parents, administrators and therapists become more proficient in working together as collaborators within their existing school context.

Friend, M and Cook, L (2000). *Interactions: Collaboration skills for school professionals* 3rd edition. New York: Longman.

This book deals with all related topics to collaborative working relationships between adults who educate and support learners. It was

written specifically to enable readers to implement the ideas in the text in practice.

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# Culture

Brenda Louw

## INTRODUCTION

The process of developing cultural competence is addressed in this chapter with the aim of creating an awareness of the importance thereof within the South African context, and of facilitating the empowerment of future health care and education professionals to provide culturally and contextually relevant service delivery within their chosen professions in the future. We will work through an overview of guided readings related to salient issues, namely culture, linguistic diversity linked to culture, ethnography as research and clinical tool, the development of cultural competence, provision of culturally congruent services, guidelines for the assessment of, and intervention with, culturally diverse learners and their families, and in conclusion monitor and evaluate services provided.

South Africa is characterised by cultural and linguistic diversity and the local population is commonly referred to as the 'rainbow nation', as it is composed of four major racial groups, namely Africans, Asians, coloureds and whites. The official languages of South Africa are Sepedi, Sesotho, Setswana, SiSwati, Tshivenda, Xitsonga, Afrikaans, English, isiNdebele, isiXhosa and isiZulu (Goduka & Swadener, 1999). This diversity poses the challenge to health care and education professionals of how to provide service delivery which is consistent with the current research literature, based on professional knowledge and at the same time respects the cultures of the children and families who are served (Iglesias & Quinn, 1997).

Although cross-linguistic and cross-cultural encounters have always existed, recent developments in both the international literature and local clinical practice have led to a changing ethos of providing services which are committed to honouring diversity. It is crucial to be cognisant of the fact that culture is dynamic, and each child and her family is unique. According to Battle (in Uffen, 2001), the biggest shift from earlier thinking about cultural and linguistic diversity is a new view of where understanding should begin. Professionals need to observe and study others, but they need to examine themselves first and should recognise their lack of knowledge about individuals different to them so that they can begin to ask the right questions of learners and their families. According to Lynch and Hanson (1998), the goal of cultural learning is insight, not stereotype. Respect for difference, eagerness to learn and willingness to accept that there are many ways of viewing the world are the building blocks of developing cultural competence (Lynch & Hanson, 1998). Viewing culture as a social context guides future health care and education professionals to develop cultural competence, which in turn directs their actions to develop best practice.

**Cross-cultural competence:** The ability to think, feel and act in ways which acknowledge, respect, and build upon ethnic, cultural and linguistic diversity (Lynch, 1998). It is important in professional and interpersonal interactions.

**Cultural diversity:** Different cultures represented within a group of individuals. South Africa is characterised by both cultural and linguistic diversity. Cultural diversity has a profound effect on the way in which cross-cultural families and professionals interrelate and participate (Madding, 2000).

**Stereotypes:** Rigid preconceptions which we hold about all people who are members of a particular group, whether it is defined along racial, religious, sexual or other lines (Screen & Anderson, 1994).

**Cultural continuum:** Value sets, beliefs and behaviours are often common across cultures and, instead of contrasting these, we need to view them as a continuum (Lynch & Hanson, 1998).

## OVERVIEW OF GUIDED READINGS

For health care and education professionals working in the South African context, in-depth understanding and knowledge of culture is viewed as important theoretical underpinning for developing cultural competence leading to the provision of culturally sensitive clinical practice and service delivery.

**Culture:** 'A culture is all the shared, learned knowledge that people in a society hold. Culture guides how people live, what they generally believe and value, how they communicate, and what are their habits, customs, and tastes. Culture prescribes rituals, art forms, entertainment, and customs of daily living' (Loustaunau & Sobo, 1997: 10).

Loustaunau and Sobo (1997) explain and analyse the concept of culture and identify its components and elements through anthropological and sociological approaches in the first chapter of a text on the cultural context of health, illness and medicine. They define what a culture is and describe core or dominant cultures as those whose norms, values, language, structures and institutions tend to predominate. Subcultures develop within a larger group, and preserve the roots and lifestyles unique to them. Various concepts are explored, e.g. **acculturation**, where members of subgroups give up most of the traits of their original cultures and adopt those of the dominant group; and **enculturation**, which is cultural socialisation from birth. The nature versus nurture debate as explanation of the human condition is rejected as being simplistic. Culture is proposed as being crucial to the understanding of human behaviour.

**Ethnicity:** Typically used to describe a group defined by a common nationality, culture or language. Ethnicity is a broad grouping to which members have a subjective sense of belonging. Ethnicity itself does not constitute culture (García Coll & Magnuson, 2000).

The authors (1997) explain cultural blindness, or **ethnocentrism**, as using our own standards, values and beliefs to make judgements about someone else, and in which the customs, ideas, behaviour, values and beliefs of others are condemned when they differ from our own. In contrast, the concept of **cultural relativism** is explained as requiring that we do not judge, but consider our actions, beliefs or traits within their own cultural contexts in order for them to be better understood, by maintaining a sense of objectivity and an appreciation for the values of other cultures. The notions of diversity in multicultural societies and the way in which culture reflects the perceptions and experiences of health and illness are explained. This information is essential as a point of entry into the field of cross-cultural service delivery.

Ridley and Li (1998) concur with this viewpoint as they describe culture as shared learned behaviour that is transmitted from one generation to another for purposes of human adjustment, adaptation and growth. They categorise culture as having both external and internal referents. **External referents** include artefacts, roles and institutions. **Internal referents** include attitudes, values, beliefs, expectations, epistemologies and consciousness.

Goduka and Swadener (1999), however, are of the opinion that the concept of culture as described above has been too narrowly defined and

ignores the links between culture and power relations. They feel strongly that culture needs to be understood as 'the shared and lived principles of life, characteristic of different groups and classes as these emerge within asymmetrical relations of power and fields of struggle' (Goduka & Swadener, 1999: 35).

García Coll and Magnuson (2000) provide a refreshing perspective of culture in childhood development. They address the role of culture, ethnicity and race as distinct but additional influences on developmental risk and resources. These authors (2000) describe and explain how **cultural mismatch** – when parents' perceptions of development is incongruent with that of the broader society and its service providers – can begin to constitute a source of developmental risk. They (2000) also propose viewing culture as a developmental resource, which is unique in the current literature, and illustrate how a child's cultural background can provide strengths and protective factors in development.

**Cultural influences:** Culture shapes the development of its members and may play a role in, and influence, the cognitive, play, and development of motor and identity in children (Louw, Van Ede & Louw, 1998). Cultural experiences of home, school and society influence learning styles (Goduka & Swadener, 1999).

In applying this concept to the South African context, we can relate it to the traditional black South African saying: 'It takes a whole village to raise a child'. The community at large is concerned with its children and this implies a community social network, which creates a socially rich environment in which children develop, that needs to be viewed as a cultural strength. Based on the above views it is clear that professionals need to adopt a broad, encompassing view of, and multilevel approach to, culture before embarking on the development of cultural competence.

**Cultural perspective:** Developing a cultural perspective entails learning about other cultures to develop awareness and insight of a specific culture through readings, interactions and involvement. The goal of cultural learning is insight, not stereotype (Lynch & Hanson, 1998).

**Language** is developed within a cultural context. Language is one of the most powerful and pervasive purveyors of culture and is inextricably enmeshed in the fabric of every culture, playing a fundamental role in the transmission of beliefs, values and customs (Madding, 2000; Johnston & Wong, 2002). In South Africa, even though multilingualism is a feature of everyday life (Goduka & Swadener, 1999), the eleven official languages and their dialects may create a barrier to service delivery. Therefore health care and education professionals need to develop strategies to meet this challenge.

**Cultural rights:** Recognition that people have a right to cultural development (Goduka & Swadener, 1999).

Goldstein (2000) provides an overview of linguistic diversity and describes how children's communication is influenced by culture, home language, socio-economic status, pragmatic style and learning style. The communication styles and linguistic structures that children bring to school reflect the families' communication style and child rearing practices. Children from cultural and linguistic populations distinct from that of the teacher may not be prepared for the home-school differences, and when their communication skills do not meet the expectations of the teacher a mismatch may occur, which may impact negatively on their academic skills (Goldstein, 2000). The author (2000) provides useful

information in table format on cross-cultural differences in parent-child interaction and communication, which may be applied by health care and education professionals to develop insight and prevent communication breakdowns in the classroom and during intervention (Goldstein, 2000).

Goduka and Swadener (1999) apply these concepts directly to the South African context in a chapter on the implications of linguistic and cultural diversity for learning, teaching and curricular transformation, which is extremely valuable due to the shortage of local research on the topic. They (1999) state that every learner has a right to his own language and culture. They (1999) review the issue of **multilingualism** within education in South Africa and emphasise that maintaining language and culture are essential in supporting and sustaining academic achievement of learners. The relationship between culture and learning styles has been widely studied. Goduka and Swadener (1999) point out that the notion that certain learning styles are related to an individual's culture and therefore to certain ethnic groups is both promising and dangerous as, on the one hand, it can lead to teachers altering and adapting their teaching styles to be more responsive to the learning needs of the learners, but on the other hand it may also foster stereotypes.

Goduka and Swadener (1999: 115; 117) conclude with classroom implications for teaching and learning in South Africa, e.g. 'The more teachers value and validate students' culture and language in the classroom, the more likely it is that the students will learn', and with practical suggestions for teachers to apply in the classroom, e.g. 'Know the learning style patterns that seem to characterize the various ethnic groups'. Health care and education professionals need to view cultural and linguistic diversity as an asset in developing cultural competence within the South African context.

**Ethnography:** 'Ethnography involves an ongoing attempt to place specific encounters, events, and understandings into a fuller, more meaningful context' (Tedlock, 2000: 455). 'Ethnography is a qualitative research method appropriate for studying culture as defined by cultural practices – that is, actions that can be observed. These actions reflect what is routine, normative, and valued by a group of people. As a procedure for interpretation of what can be observed, ethnography is an ideal framework for examining culture' (Stone-Goldman & Olswang, 2003: 2). According to Madding (2000), ethnography opens the mind and creates a medium for the understanding of culture.

**Ethnography** is a commonly used research methodology for observing behaviours in context and understanding them in terms of culture. Familiarity with this approach is of vital importance to health care professionals in the South African context, as the use thereof has a multitude of benefits for the practising professional and it is the ideal way of bridging the gap between theory and practice. In order to develop cultural competence, professionals need to ascertain family's views and beliefs of issues pertaining to their children. Ethnographic interviews are a primary method for obtaining such information (Hammer & Weiss, 2000). Such interviewing is a technique aimed at gathering information from the perspective of the individual and family, rather than that of the professional.

Stone-Goldman and Olswang (2003) provide an overview of a year-long project in which they trained four undergraduate students to explore

cultural values through research in an early intervention centre in the USA. They explain the primary elements of ethnography as being **participant observer, thick description, interpretation** and **conclusions** (Stone-Goldman & Olswang, 2003). A description of the steps followed by the students to practise and implement the ethnographic methodology is described in three stages, namely practising, developing observation skills and interpreting the observations. The students were then requested to bring in knowledge about culture. Stone-Goldman and Olswang (2003) found that the structure devised by them taught the students how to study behaviours in real contexts and identify variables that were important and likely to be influenced by culture.

**Thick description:** One of the primary elements of ethnographic methodology; it refers to the detailed, rich account of what is observed (Stone-Goldman & Olswang, 2003). Participant observations, interviews and questionnaires may be used (Madding, 2000). The complete thick description constitutes the raw data for the research (Stone-Goldman & Olswang, 2003).

The students also developed cultural sensitivity. According to Hammer and Weiss (2000), by working from the family's perspective, it is hypothesised that a stronger partnership can be established with the family, one that will maximise the benefits of the service provided. The article by Stone-Goldman and Olswang (2003) provides a real-life application of an approach and steps to use in cross-cultural service delivery with exciting possibilities in the South African context.

Attaining cultural competence is a professional and an ethical responsibility for health care and educational professionals working in the South African context. Lynch (1998) explains and describes the knowledge and skills that professionals can use to help them build bridges between themselves and the children and families who come from cultures different from their own. Lynch (1998) provides ways in which professionals can increase their effectiveness when working cross-culturally. **Cross-cultural competence** is defined as the ability to think, feel and act in ways which acknowledge, respect and build upon ethnic, cultural and linguistic diversity (Lynch, 1998).

**Self-awareness** is explained as the first step in developing cross-cultural competence and starts with an exploration of one's own heritage. According to Lynch (1998), it is not possible for us to be truly sensitive to someone else's culture until we are sensitive to our own culture and the impact that cultural customs, values, beliefs and behaviours have on practice. Moreover, developing culture-specific awareness and understanding can be achieved through learning about other cultural perspectives, through viewing cultural values, beliefs and behaviours on a continuum rather than as differences, and guarding against stereotyping (Lynch, 1998).

Cross-cultural communication is critical in the process of attaining cross-cultural competence. General principles of effective cross-cultural communication, acknowledging and respecting cultural differences rather than minimising them, communicating attitudes through words

and strategies for working with effective interpreters are explained as the process of **effective communication** (Lynch, 1998). These guidelines can be applied to developing professionally to meet the needs of children and their families from diverse cultures. It is important to bear in mind that, in South Africa, owing to a myriad factors, the traditional Western concept of family structure may not automatically apply, and that older children may often be the primary socialisers to provide information and be candidates for training to carry out activities with a younger brother or sister.

**Ecological systems theory of human development:** Bronfenbrenner (in Garbarino & Ganzel, 2000) developed a theoretical approach for studying development that focuses on individuals within their environmental contexts by emphasising the interrelations of the individual with layers of environmental context. Culture is viewed to be an important context of children and their families, as culture guides their actions (Iglesias & Quinn, 1997).

Louw and Avenant (2002) describe how culturally congruent services may be developed in the South African context to meet the needs of young hearing impaired children and their families. Cultural factors which may influence service provision here are described as, for example, family structure and roles, child rearing practices, health beliefs and practices, and traditional healing methods (Louw & Avenant, 2002). These issues are addressed in the development of cultural competence in the provision of early intervention services (Louw & Avenant, 2002).

The authors (2002) describe three theoretical frameworks, namely the **ecological model**, the **one stop model** of service delivery and the **model for early intervention services** within the primary health care context. Their (2002) article serves to illustrate how notions and guidelines regarding cross-cultural service delivery, which abound in the literature, can be implemented in the South African context to cater for a specific population, in this case young children with hearing impairment and their families.

Issues of cross-cultural service delivery have been prominent in the literature published in the USA, and many attempts have been made by researchers to guide clinicians in effective service delivery. Several of these guiding principles may be applied effectively in the South African context, and can even guide the development of specific guidelines for the local context. Rivers (2000) lists culturally and linguistically sensitive skills and behaviours that health care and education professionals need to know and implement to increase the likelihood of having successful interactions with parents and caregivers of diverse cultures, for instance emphasising to parents and caregivers that they are valued and important members of their children's education and remediation teams.

**Ethical guidelines:** 'The purpose of ethical guidelines is to ensure that clinicians develop and maintain appropriate professional relationships and carry out proper clinical procedures. Ethical guidelines form the foundation for ideal practice' (Ridley & Li, 1998: 17). It is the ethical responsibility of professionals to develop multicultural assessment and intervention competencies when providing cross-cultural services.

Goldstein (2000) has provided a resource guide on cultural and linguistic diversity for speech-language therapists in the USA. Developed specifically for speech-language therapists, the guide is nonetheless viewed as a valuable tool for use by all professionals within a transdisciplinary team approach to learners with communication difficulties in the South African context. The second section of the guide focuses on

procedures for assessment and intervention. It addresses issues of vital importance to all team members. The following ten guidelines (from an exhaustive list) may be used by all professionals working with children and families from a variety of cultures in the South African context:

1 Cultural variables that affect assessment include non-verbal aspects, e.g. body language, eye contact, concept of time.
2 General principles in conducting least biased assessment are, for instance, adapt assessment tools to fit the child's language and culture, and refrain from making negative assumptions about the child and the family.
3 A question to ask in choosing formal assessment tools and tests is: Are the possible limitations of the test described? According to Ridley and Li (1998), it is the ethical responsibility of professionals to develop multicultural assessment competencies and to make use of unbiased, valid testing procedures.
4 A model for limiting bias in evaluating children has these seven steps: identifying socio-cultural information, child characteristics and test characteristics; selecting and administering the tests; interpreting child performance; and prioritising decisions and recommendations.
5 Areas for professionals to consider in determining cultural variations in families are family structure and family perceptions, and attitudes, language and communication styles.
6 Families should be involved in the assessment process. Guidelines are included on how to enhance communication, how to empower parents and families, and what potential challenges to be aware of.
7 The goal of dynamic assessment is to profile the learner's abilities, to observe the learner's modifiability, to include active, self-regulated learning and to inform intervention.
8 Support personnel in the form of assistants and translators should be trained and used. Guidelines are provided on collaborating with interpreters, appropriate and inappropriate tasks for interpreters, and the disadvantages of using family members as translators.
9 General considerations for intervention include, for example, allowing for additional time when working with support personnel, and learning greetings in the family's language.
10 Some challenges of working with children and families with cultural and linguistic diversity are embracing diversity, promoting literacy and alerting parents to what will lead to academic success.

The final component of the intervention process is monitoring and evaluating the services provided to each child and family (Lynch & Hanson, 1998). Professionals need to determine whether the objectives specified

for the child have been met, and whether the family members are satisfied with the degree to which they have reached those outcomes. Lynch and Hanson (1998) provide a list of questions to answer when monitoring the intervention process. For example: Is the child's rate of success consistent with her predicted gain, or has the gain been accelerated? They (1998) also recommend that the effectiveness of the programme as a whole be included in the evaluation and describe steps to achieve this, such as developing an evaluation plan using culturally competent, external evaluators to assist design and analysis. Monitoring and evaluating services rendered is crucial to sustainability of the services and programmes.

## CONCLUSION

These practical guidelines, which are based on sound theoretical principles and research findings, are exciting for the health care and educational professionals who would like to embark on culturally sensitive clinical practice in South Africa. Currently, what is most needed to advance cultural competence is local research, which will inform clinical practice. The attainment of each child's full potential, irrespective of culture or language, is the proverbial pot of gold at the end of the rainbow (Madding, 2000).

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 Why is it important to understand the concept of culture?
2 What are the components and elements of culture?
3 How can language differences create barriers to service delivery?
4 How is language related to learning styles?
5 What are the benefits of using ethnography as both an interview and research tool in the South African context?
6 What are the steps that professionals can follow to develop cultural competence?
7 Which cultural factors can influence service provision in the South African context?
8 Which three theoretical models may be applied in the South African context with regard to the development of culturally congruent services?
9 Why is it important to monitor and evaluate services provided to families?
10 Why is local research on the provision of cultural competent services needed in the South African context?

## VOICES

The realisation that the health care professional should not only observe and study others, but should do self-examination before engaging in the development of cultural competence was of particular value to me. My previous understanding of cultural competence was over-simplified, and the new information about concepts such as acculturation, cultural blindness and cultural relativism will influence the efficacy of my service delivery in future.

– Speech-language therapist audiologist, Pretoria

I definitely believe it is a good idea to learn more about other cultures, since it will foster understanding for different ways of doing things.

– 16-year-old, Grade 11 learner, Pretoria

## APPLICATION STRATEGIES

The strategies are as follows:

- respect individuals from other cultures
- learn greetings in the language of the families with whom you need to interact
- collect cultural and linguistic information about families of different cultures from a variety of sources in order to be able to understand their worldview
- assess children in the least biased manner and be aware of your own biases
- acknowledge the child's and family's strengths rather than focus on delays, weaknesses and limitations
- embrace diversity and validate the child's and families' language, culture and learning styles by eliciting information-sharing activities
- make use of peer tutoring and older children with the same language in intervention
- when counselling families, remember that variation exists between cultures regarding non-verbal communication, e.g. eye contact and smiling
- when using an interpreter, communicate with her regarding her role and responsibilities, and define her role for the family as well
- evaluate yourself to ensure accountable and culturally competent service delivery.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 How can I apply my knowledge of culture and culturally related issues as a health care and education professional when dealing with children and their families from cultures different to my own?
2 How can I view cultural diversity as a resource when working with children and their families from different cultures?

3 What is my own culture, and what are my value orientations with respect to, for example, help seeking practices?
4 What are my specific cultural values?
5 In reviewing some tests that are commonly used in my professional discipline, which items may be unfamiliar to a learner and how could I compensate for this?
6 How do I think about culture when I am alone as compared to when I am in a group of individuals from different cultures?
7 When working with families of different cultures, do I genuinely listen to their perspective?

## TEN FACTS ABOUT CULTURE

1 Families and children have a right to their own culture (Goduka & Swadener, 1999).
2 Culture has an effect on the way in which culturally diverse families, their children and professionals inter-relate and participate together in educational and therapeutic intervention programmes (Madding, 2000).
3 Culture can be a developmental resource and may have a growth-promoting influence on child development (García Coll & Magnuson, 2000).
4 Professionals can develop cultural competence to make education and intervention culturally responsive, and self-awareness of our own culture is the first step in attaining cultural competence (Lynch & Hanson, 1998).
5 Perceptions of disability and views of health and healing are influenced by the belief systems and values of a culture (Bennet, Zhang & Hojnar, 1998; Louw & Avenant, 2002).
6 Language is interwoven in culture, and linguistic and cultural diversity has implications for learning and teaching (Goduka & Swadener, 1999).
7 Ethnography is a powerful technique and methodology in developing cultural sensitivity and acquiring cultural competence (Madding, 2000; Stone-Goldman & Olswang, 2003).
8 There is no such thing as culture-free testing and it is the professional's ethical responsibility to apply the general guiding principles suggested in the literature to conduct the least biased assessment (Goldstein, 2000).
9 Certain culturally related factors may act as barriers to the education and therapeutic intervention of children (Louw & Avenant, 2002), but appropriate education and intervention can be provided by following general intervention guidelines for individuals from culturally and linguistically diverse populations (Goldstein, 2000).
10 Professionals who are culturally competent and provide culturally sensitive practices promote an environment in which dreams and visions for children are shared by both themselves and the families (Iglesias & Quinn, 1997).

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Culturally and Linguistically Appropriate Services, http://ericps.crc.uiuc.edu/clas/clashome.html

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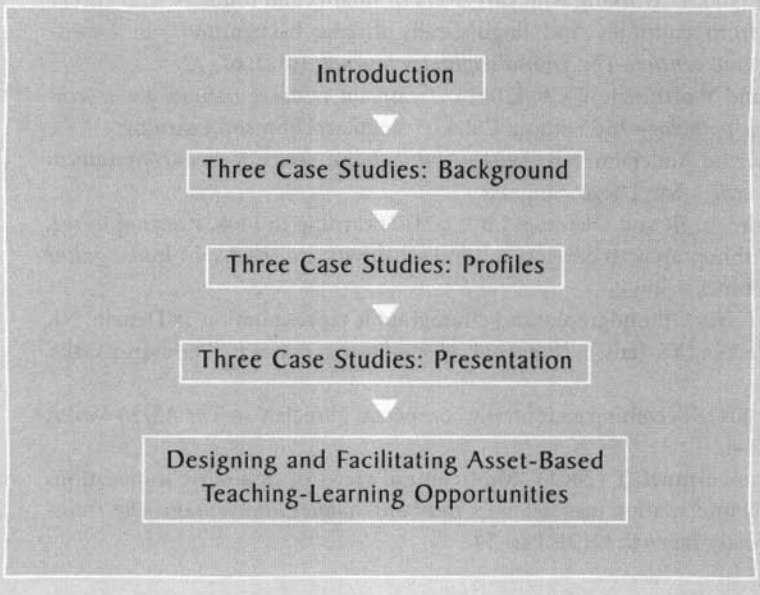
# Technology Education

Annemarie Hattingh, Antoinette du Plessis



## INTRODUCTION

This chapter intends to illustrate to you how an educator who had no special training in working with learners with barriers to learning used a new learning area in Curriculum 2005, namely Technology Education, to empower learners in multiple ways.

The chapter will focus on three case studies of effective asset-based teaching and learning in Technology Education. Each case will be analysed in terms of the positive effects it had on the learners involved. The assets that were available in the different cases will be highlighted, as well as the way in which each was used to improve the learner's strengths.

The chapter will conclude with suggestions for designing and facilitating asset-based teaching-learning opportunities in any learning area.

## THREE CASE STUDIES: BACKGROUND

Technology Education is a new addition to the compulsory South African national curriculum: Curriculum 2005 (C2005). Technology Education is a separate learning area in the Senior Phase (Grades 7–9), while in the Foundation (Grades 1–3) and Intermediate (Grades 4–6) Phases, it is integrated into other learning areas. Technology Education incorporates many of the principles that have gained favour worldwide, such as design back from learning outcomes, learner-centred and hands-on facilitation, and continuous, standards-based assessment.

The vision that drives this new learning area states that 'Technology Education will be part of the education of every boy, girl, educator and adult learner by the year 2005 with a view of them becoming creative, adaptable, critical, autonomous, entrepreneurial and employable citizens who can contribute meaningfully and responsibly to their own communities, South African society, and the economy' (Kahn & Volmink, 1997: 11). Through this vision the following definition of the concept had to be implemented: 'Technology Education concerns technological knowledge and skills, as well as understanding the impact of technology on both the individual and society' (Department of Education (DoE), 1996: 12–13). 'Technology' in this regard forms the basis of technological endeavour and comprises the process skills listed in the South African curriculum, as illustrated in Table 15.1 (DoE, 1997: 86).

One of the inherent assets of Technology Education is embedded in the technological process itself. Learners must apply this process each time they tackle a problem, and it serves as a heuristic (method) that they can use to think about and solve their own life-related difficulties. It provides a systematic approach to problem-solving in general.

Table 15.1 The technological process as conceptualised in South African curricula

| THE TECHNOLOGICAL PROCESS | |
|---|---|
| **Task** | **Actions** |
| **Analysing and describing** | • Identify and understand the need or problem.<br>• Analyse the problem.<br>• Draw up specifications. |
| **Designing and developing** | • Find useful information/do research.<br>• Generate ideas.<br>• Develop ideas and select the best ideas.<br>• Communicate and share ideas. |
| **Planning and making** | • Plan the solution:<br>– choose material, equipment and processes<br>– work out costs<br>– make a working drawing.<br>• Consider:<br>– quality of construction<br>– accuracy<br>– finishing<br>– appearance<br>– safety. |
| **Testing and evaluating** | • Ask:<br>– Have the criteria been met?<br>– Is the quality good?<br>– Am I proud of my effort? |
| **Recording and communicating** | • Show the ideas and the processes used in writing (portfolio).<br>• Display/market the final product. |

## THREE CASE STUDIES: PROFILES

### The learners, with barriers to learning

The school involved in the three case studies is a school for learners with epilepsy and/or learning disabilities. Most learners who attend such schools do so after experiencing continuous rejection and failure in mainstream schools. This particular school is combined as it teaches Grades 1 to 12. The maximum number of learners allowed per class is 20. The ratio of boys to girls is 3:1.

Approximately 20% of the learners have epilepsy and the rest have other forms of barriers to learning. On average, 35% of the learners are on medication, which has side-effects such as headaches, drowsiness, tiredness, irritability, aggression and depression, to name but a few. The following are some of the psycho-social problems that may occur in a

learner with epilepsy, and which may strongly influence learning in a class situation and classroom dynamics:

- low self-esteem
- poor intrepidity
- hypersensitivity
- inconsistent behaviour
- irritability
- chronic tiredness
- feelings of rejection
- tendency to initiate conflict
- emotional lability.

**Poor intrepidity:** A learner who is unwilling to try new things.

**Emotional lability:** A learner with emotional lability is emotionally less stable, which may be caused by insecurity in his life (e.g. poor home environment, poor self-esteem). His reactions therefore cannot always be predicted.

Epileptic seizures, general tiredness and the side-effects of medication may also have a serious impact on the learning process – this must be considered and managed skilfully by the educator at all times. Some of the more serious and longer term problems of learners with learning disabilities are:

- learning gaps and language deprivation
- reading, spelling and writing problems
- poor visual and/or auditory memory
- poor motor coordination
- perceptual problems
- attention deficiency
- hyperkinetic behaviour
- difficulties with short- and/or long-term memory
- problems with conceptualisation
- problems with social and emotional adaptation
- inability to organise.

**Hyperkinetic behaviour:** A learner who is physically active in a way that can be described as more than usual for her particular developmental age.

Many of the learners in this school have been diagnosed as having Attention Deficit Disorder (ADD) or its closely related condition, Attention Deficit Hyperactivity Disorder (ADHD). Problems which may affect their effective learning performance are:

- language processing
- auditory processing
- memory deficits
- behaviour problems
- attention deficiency
- impulsiveness
- difficulty executing or completing an order, task or assignment.

### The educator

The educator accepts the fact that learners who appear to be naughty, wilful, aggressive, distractive or disruptive are, in fact, *none* of these things

– frequently, such behaviour is not voluntary on the part of the learner. The educator largely ascribes the learners' behaviour to their neurological state. She constantly tries to find ways that will help learners to overcome their problems and limitations. She tries to instil in them a feeling of self-worth and self-esteem (which they seem to lose through repeated failure). By helping them to develop norms and values, she guides them to becoming socially well-adjusted young people with a positive view of themselves and an optimistic view of their futures.

In schools that support learners who are learning challenged, the educator is always in close physical proximity to the learners, irrespective of the teaching strategy being used. The learners have a strong dependency on their educator. This often results in the educator having to play multiple meaningful roles for learners, including mentor, caregiver, nurturer, friend and 'informal psychologist'. The educator finds that her extramural activities, such as coaching athletics and poetry for eisteddfods, help her in gaining the trust and respect of learners, which carried over into the academic environment.

The educator strongly believes that she has to lead by example, especially in conflict situations. Her motto is: 'Actions are more powerful than words.' Therefore, she tries not to use impulsive or aggressive types of behaviour. She rather uses listening techniques and assists learners to be reflective about their behaviours and decisions. She knows that with these learners, disability leads to anxiety, pressure leads to hostility and rejection leads to withdrawal.

She is a well-trained technology educator with great enthusiasm and passion for this specific learning area. She believes that the nature and structure of Technology Education gives it the potential to provide useful cognitive and meta-cognitive structures that can be internalised and used effectively by learners with special educational needs. She initially exposes learners to such structures by designing small tasks in which she knows that learners will succeed. She uses time as a flexible resource and adjusts the tempo at which learners work when necessary. She includes a variety of tasks that keep learners interested and motivated throughout their learning endeavours.

She believes that by implementing the technological process to solve problems, learners learn how easy it is to solve major problems by breaking them up into smaller, less threatening steps. This technique can be carried over into real-life problem-solving processes.

In the hands of an enthusiastic, caring and well-versed educator, the values and attitudes of Technology Education can be instilled in the learners, giving them, *inter alia*, feelings of self-worth and self-pride. She tries to cultivate the following values and attitudes in the learners:

- independence and originality of thought
- a willingness to contribute ideas
- open-mindedness
- a willingness to consider the needs and values of groups and of individuals from a variety of backgrounds
- a willingness to take responsibility for suggesting new ways of satisfying these needs
- a systematic approach to a task
- perseverance in achieving satisfactory task completion
- a willingness to express findings appropriately and with self-confidence
- the capacity for constructive self-criticism and honest evaluation
- an awareness of the potential dangers of misuse of materials and tools in terms of the health and safety of individuals
- environmental responsibility
- curiosity, interest and diligence
- consciousness of bias in the development and application of technology.

## THREE CASE STUDIES: PRESENTATION

### Case study 1: The bicycle birthday gift

*Problem scenario presented to learners*

You are on a farm. It is your cousin's birthday and you decide to make him a model of a bicycle as a gift. You have wire, empty cold-drink tins and other natural materials. You want the bicycle to be able to stand on its own and not be higher than 15 cm.

*Case analysis*

Peter, the learner in this case, was given this project on structures in Grade 6. He had a brain dysfunction and learning disability. He was also myopic and wore glasses. His intellectual ability was below normal. He was small for his age and had been made fun of by the rest of the boys in the class, especially since he also received the lowest marks in class for tests and assignments. He became so aggressive that he eventually had to appear before the disciplinary committee. He had little self-confidence left at the time when he joined the technology class.

Guided through the different stages of the technology process by the educator, Peter realised that technology was something that he was good at. He was extremely pleased that his father helped

him with the construction of the wire bicycle. This was as a result of the fact that part of the making process had to be done at home, in the learner's own time. Peter valued the fact that he and his father planned and worked together on this phase of the technology process. Peter's final bicycle design is shown in Figure 15.1 below. He mentioned that his relationship with his father had improved since this exercise. Also, his mother taught him to access the Internet to use as a resource when doing research for the different technology learning tasks.

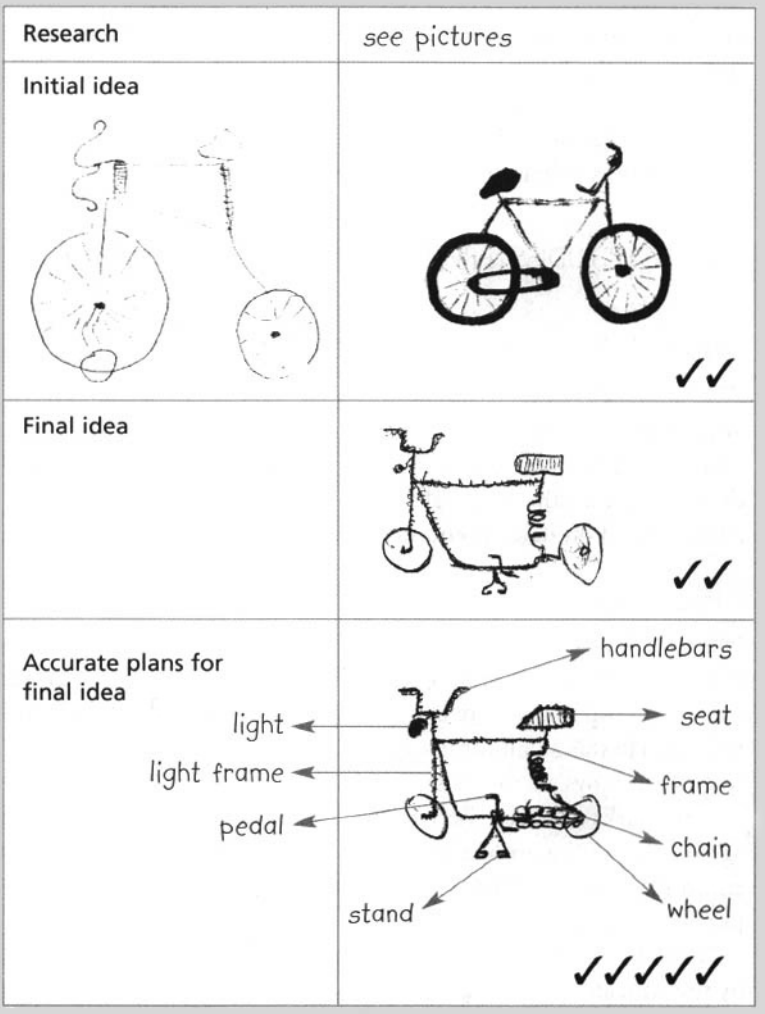



Figure 15.1 Peter's bicycle design

Peter made an excellent model bicycle and was assessed at level 4 (70% +). Since then his confidence had been remarkably restored, his self-esteem improved and he made a new circle of friends. He supplied the rest of the class with Internet information when needed. According to his mother, he also became more involved in his homework and other subject matters. Although he still needed a lot of support in most of the other learning areas, the fact that he could achieve success in technology changed his negative attitude; his aggressive behaviour stopped and he was less frustrated.

His mother asked the educator to give fewer technology assignments as Peter gave these priority over all his other work. The educator remarked, 'Peter's case makes it worthwhile to be an educator.'

### Case study 2: A special prop for story time

*Problem scenario presented to learners*

All young children enjoy stories. However, as they are so young their attention span is short. The Grade 1 educators in our school have found that the children can listen for much longer and remember much more if the educators use special props to illustrate the stories. The educators have requested your help.

You must use your knowledge of levers and linkages to design and make a special prop, with moving parts, which can be used to improve story-telling and entertain the Grade 1 learners.

You can use only the following materials for planning and making the prop:

- cardboard, paint, coloured pencils or marking pens
- coloured paper, glue, plastic bottles
- cellophane paper, fabric pieces, lids
- thin dowel sticks, split pins, string
- perforated plastic strips, drawing pins, cotton reels
- 'sosatie' sticks, toothpicks, old buttons
- any material that can be recycled.

*Case analysis*

This daunting capability task was given to a Grade 9 class in which Mokgadi was one of the learners. She had come from a mainstream school the previous year and this was the first time she encountered technology as a subject. She suffered from a sub-clinical epileptic phenomenon. A report from her previous school described her as

follows: 'Mokgadi is easily discouraged, lacks motivation, is very insecure, cannot concentrate, is lazy and has a slow working tempo. She battles to get started and is easily distracted. She has difficulty understanding questions when doing homework.' Mokgadi was also on medication for her epilepsy, which made her sleepy.

The educator started this project by introducing the learners to smaller tasks, preparing them with appropriate knowledge and skills to execute the main assignment which was called the 'capability task'. For example, learners had to look for similar kinds of toys or products that worked with levers and linkages. As part of the investigation phase in the technology process, they were taken to the Grade 1 classes. Here they could ask the educator, as well as the Grade 1 pupils, about the pupils' likes and dislikes, favourite stories and characters, poems, etc. They were given cardboard levers and linkages which they could join to see how the direction and distance of movement were influenced.

This was an open-ended task. Each learner could therefore choose the type of product he and she wanted to make. Learners in this school sometimes became easily discouraged if the task seemed too difficult, but sometimes they also went overboard and chose an idea that was hardly feasible to execute. Mokgadi's idea was one of the latter. She wanted to make a merry-go-round with papier mâché horses that rotated as well as went up and down while using only one lever. Despite the educator's warnings that it might be too difficult for her grade level, she insisted on continuing with her idea. Everybody in the class became interested in Mokgadi's product and helped to search for solutions. The further she progressed, the more confident she grew. And she did it – the end product was beautiful and worked effectively. Mokgadi was ecstatic. She became highly creative and was often seen at craft markets where she sold products that she had made.

In her final year, Mokgadi became head girl of the school. The following was written in her testimonial: 'Mokgadi is a conscientious worker with a strong sense of responsibility. She works independently, neatly and accurately.' Mokgadi won an award at the school for perseverance, self-discipline, reliability, a positive attitude and commitment.

Although Technology Education *alone* was not responsible for this remarkable change in Mokgadi, it indeed helped her to find her niche and restored her self-confidence and self-esteem.

Case study 3: A model of a classroom

*Problem scenario presented to the learners*

The school has received some money to be used for adding any classroom that might be needed. The principal asks you, as learners of the Grade 9 technology class, to do a survey to determine what type of classroom should be added to the existing building. You must then design and build this new classroom to scale.

You can use only the following materials:

- cardboard, paper, glue
- dowel sticks, paint, straws
- cellophane paper, natural materials, fabric pieces
- old tins, boxes, carpet cut-offs
- ice-cream sticks, tin foil, thin wire
- anything that is being recycled.

*Case analysis*

Mandy has a history of epilepsy. She used to be very reserved, and was introverted and insecure. She used aggression to defend herself and had poor social skills. She was fond of reading but had no practical skills. When given this open-ended capability task she started to cry, and then ran out of the class saying that she will never be able to do the task. It took the educator some time to convince her that by following the phases in the technology process, and with guidance from the educator, the task would be possible.

In each technology period Mandy and the rest of the class were spurred on by smaller structured tasks and realistic, achievable steps. In groups they devised a questionnaire to ask different role-players at the school what kind of room they would like to see added to the school. They measured actual classrooms and drew these to scale. They measured furniture and drew that to scale on their floor plans. They learned about different types of structures and how to strengthen these. Mandy became interested; she was drawn out of her shell. Although her product was not the best in the class, she finished the task and had been fairly creative in its execution. She made some friends and her aggression disappeared. She still preferred the reading classes to the technology classes, but this task helped her to realise that she was capable of succeeding if she made a sincere effort.

Mandy went on to study food services and became one of the best chefs of her year group (although she likes to deny that cooking is also part of technology!).

## DESIGNING AND FACILITATING ASSET-BASED TEACHING-LEARNING OPPORTUNITIES

### Some suggestions

It is best for educators to design open-ended learning tasks that allow for **flexibility** in the execution of the task. Learners may complete the task at various levels of complexity; learners should be allowed to perform to their individual abilities. The open-ended nature of the tasks implies that the products which learners design and make are never 'wrong'. It allows for all learners to contribute their efforts, and for each effort to be seen as valuable. This approach allows for *each* learner to achieve some level of success. We all know the saying 'success breeds success'; this is extremely important in a learning situation and can help learners to maintain their motivation levels.

Educators may also separate the initial, large learning task into smaller learning tasks at differing levels of complexity. Figure 15.2 provides an example of how an initial learning task was narrowed down to allow for a variety of learning tasks in which learners may decide to engage. It is important to note that although the smaller tasks exist at different levels of depth and complexity, learners still have to use the technology process (see Table 15.1) in order to complete the task. The technology process provides the structure and scaffolding for solving the problem. In Technology Education the *process* of achieving the solution is as important as the final product or solution.

**Technology process:** This is a heuristic or method that guides the user through the different stages of thinking and doing to design a solution to a problem or an artefact. The processes are descriptive rather than prescriptive, and they do not necessarily have to be executed in a fixed sequence.

When learners have low levels of appreciation of what constitutes quality work, it is useful to show them examples of what is good and bad in design products from previous years' work. It is also important for educators to show appreciation for even the slightest improvements in the quality of learners' design and construction attempts.

Learners who have low levels of work ethic need to be given strong guidelines, rules and methods of working.

Some learners struggle to communicate. Educators should allow for sufficient time in which ideas can be brainstormed and discussions can be held. The educator or one of the other class assistants may act as a scribe to write down the ideas, use communication flashcards or information technology applications, such as a concept keyboard. Barriers to communication should not become barriers to ideas and imagination.

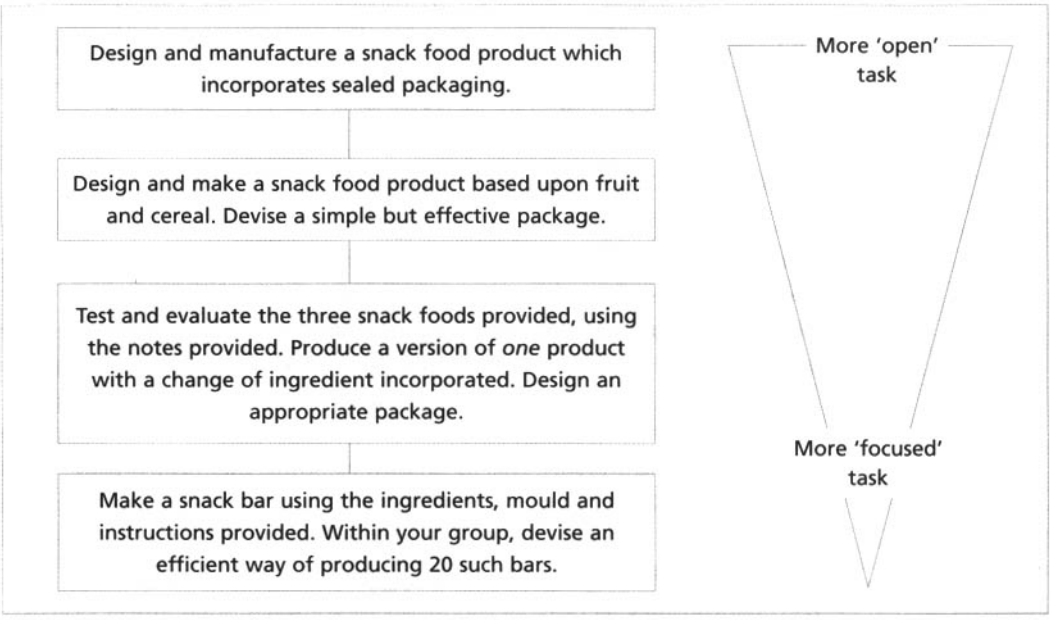



Figure 15.2 'Adjusting the depth of focus' in a food technology task (Banks, 1994: 177)

Educators should repeatedly highlight safety issues in the technology classroom. They can also provide learners with safety checklists that must be used prior to, during and following practical working situations.

### Some hints

The South African education system is rooted in the philosophy of outcomes-based education (OBE). This means that educators must use OBE principles to design learning tasks and learning environments in all learning areas. These principles have a strong asset-based focus. The fundamental belief of OBE is that all learners can be successful in their learning so that they can eventually become successful in performing complex real-life roles. Therefore, from the macro managerial level to the micro level in classroom, the education system should be structured in such a way that learners can indeed be successful (Spady, 1994). This belief is based on the optimistic view of **learner potential** explicated in the following principles (Spady, 1994).

*All learners can learn, but not at the same pace and in the same way*

This premise acknowledges the different rates of learning and learning style preferences. It implies that educators should allow learners, for example, to present their work in multiple modes. While one learner

might prefer to use a colourful poster, another may wish to build a model, and a third might use a computer-driven presentation. Different learning style preferences correspond with the multiple intelligences described by Gardner (1993) (see Chapter 3 and, more fully, Chapter 8).

*Successful learning promotes even more successful learning*

This premise suggests that learning success may be enhanced when learners have strong cognitive and psychological foundations prior to learning success. In order to provide learners with expanded opportunities for achieving success, educators must take a broad view of intelligence and capacity to learn. The principle of expanded opportunity requires educators to give learners more than one chance for learning and demonstration of that learning, since not all learners learn in the same way at the same pace (Spady, 1994). This means, for example, that time must be used as a flexible resource and that learners who did not understand a concept fully when the bell rang at the end of a period should be provided with additional learning opportunities. However, this does not mean that learners can take as long as they wish to complete their work. Learners must be responsible and held accountable to meet the conditions that will 'earn' them the expanded opportunities (Spady, 1994).

*Institutions such as schools control the conditions that directly affect successful learning*

Institutions can restructure themselves, their courses, time schedules, methodologies, and strategies for teaching, learning and assessment to be different from those of the past. The aim is to encourage and support all learners to be successful in attaining the immediate and real-life performance competencies.

## CONCLUSION

**Learner facilitation:** A teacher creates conditions for learning in which learners are actively involved in the learning process so that they are led to construct their own knowledge and contest existing knowledge.

One of the OBE principles states that all learners can learn, but not at the same pace and in the same way. Educators who use this principle in the design of learning tasks and facilitation of learning will make it possible for all learners to be successful in their learning endeavours, and ultimately in their own lives. If we are indeed serious about making learners successful, as educators we will find many assets on which we can build in the learning environment. The assets abound everywhere: in learners, teachers, parents, circles of friends, a single caring individual, a group of caring people; in the natural environment and, as regards technology specifically, even in cheap waste materials that provide excellent resources for innovative educators and learners.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 What are the principles that OBE is based on? Which of these principles make it possible to provide fair and equal learning possibilities to all learners?
2 How can the technological process be used as a general problem-solving approach to any problem?
3 How would you adapt the phases in the technological process so that they present a lifeskill that can be used to solve a personal problem in a learner's life?
4 After carefully reading each case study, make three lists (one for each case) that show all the assets and strengths that were present in each learning environment.
5 What were the strengths that developed in each of the learners that were discussed in the case studies?
6 What is the attitude, teaching philosophy and any other characteristics of the educator who taught the learners described in these case studies?
7 Why do you think this particular educator was successful in her teaching practice?

## VOICES

I believe it is extremely important to motivate learners by celebrating small successes – find something to praise!

– Educator

Technology is not just another dead subject. You do not only sit on your chair and write frantically like a zombie. We talk about our ideas with our friends in a group; we build models; we write in our design books ... we are actually allowed to move around in the class to see how other kids are building their models.

– Learner

## APPLICATION STRATEGIES

The strategies are as follows:

- Technology is about solving challenging, real-life problems. Therefore, educators should put a lot of effort into devising interesting problems that learners will enjoy and find useful.
- Educators must provide ample opportunities for brainstorming ideas and solutions. Allow learners to 'play' with their ideas and imagination.
- As educators, you should never underestimate the ideas that learners have – often, you will be pleasantly surprised by their innovation. Listen carefully to what they have to say and do not force them to think like you or the majority of learners.

- Designing interesting learning tasks that address issues that learners find 'cool' – in other words, issues to which they can relate – is the best way to motivate learners and to sustain their learning.
- Educators must allow ample opportunities for learners to assess the quality of their own efforts, and to reflect on the effectiveness of the processes that they have used to solve the problems.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 After reading through the chapter, what is my attitude towards learners' ideas and suggestions for solutions?
2 How can I as an educator make sure that I am sensitive to the strengths and assets that learners bring into the learning environment? How will I use learners' strengths in the learning environment?
3 What are the other learning areas and subjects across the curriculum that can naturally be integrated into the design of technology learning tasks?
4 What role do values play in the teaching of subjects like science and technology? When we discuss issues such as cloning of humans or nuclear energy, for example, should I initiate debates around two questions, namely:
   (a) Can it be done through technology?
   (b) Should it be done?

## TEN FACTS ABOUT TECHNOLOGY EDUCATION

1 Technology is now part of the daily lives of every boy and girl – it is woven into every dimension of our social lives, school lives, recreation, health, housing, food, transport and environment, to name but a few.
2 Technology Education is not computer education or information technology, although it does include elements of these.
3 Technology Education is not an 'art and crafts' subject that focuses only on the making of artefacts and products.
4 Technology Education is process-driven and focuses on more than a body of facts that learners need to recall in exams.
5 Since technology deals with real-life problems, there is no single correct answer or a single best process of arriving thereat. The complexity of processes and products may differ; nevertheless, each learner can contribute in some valuable way.
6 Technology Education is a sensible point of departure to initiate learning across the curriculum (i.e. to integrate different learning areas and subjects).
7 In Technology Education learners learn about the responsible and ethical use of technology towards the self, others, the environment and the world.

8 A variety of assessment tools and methods have to be used in the assessment of the processes and products of technology, since many skills and the application thereof need to be assessed. Traditional tests and exams cannot be the only methods of assessing technological capabilities.
9 An educator does not necessarily need hi-tech equipment to teach technology in Curriculum 2005. Cheap waste materials can take the innovative educator a long way in teaching technology effectively.
10 Technology Education concerns the interplay between thinking and doing, that is, integrating the 'head-and-hand dynamics', which learners enjoy a great deal.

## SUGGESTED READINGS

Banks, F (ed.) (1994). *Teaching technology.* London: Routledge.
This book provides a useful bridge between theory and practice in Technology Education. Innovative teaching strategies are suggested for planning and implementing technology-related learning tasks. A section is included on how to assist learners with barriers to learning in Technology Education.

Kimball, R (1997). *Assessing technology: International trends in curriculum and assessment.* Buckingham: Open University Press.
This book principally focuses on process-centred assessment practices. Assessing processes such as design, development and problem-solving skills is far more complex than simply assessing knowledge. Technology has used 'trail blazing' models of process-centred assessment methods and tools for over 20 years. Educators in other subjects, such as languages, science and mathematics, may learn useful alternative approaches to assessing the important processes in them.

Kumar, DD and Chubin, DE (eds.) (2000). *Science, technology and society. A source book on research and practice.* New York: Kluwer Academic Publishers.
This collection of articles offers an overview of how the future citizens of the 21st century draw on the integration of science, technology and society. It suggests such an integration to appreciate and solve many of the problems of the social world.

Van Loggerenberg-Hattingh, A (2000). Implementing a problem-based learning model in the training of educators for an outcomes-based technology curriculum. Unpublished PhD thesis. Pretoria: University of Pretoria.
In this research, both student-educators and learners were exposed to learning Technology Education through problem-based learning. Through socio-constructivist lenses, results reflect on what participants have learnt and valued in terms of content knowledge, skills, values and attitudes.

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# Career Development

Suzanne Bester

## INTRODUCTION

This chapter attempts to provide you with a broad view and understanding of theoretical aspects that are significant to and influential in career development. A critical overview of existing and emerging theories of career development is provided. The major theoretical concepts of several approaches to career development are described to encourage you to evaluate the progress and evolution of career development over the past decade. In conclusion the chapter reviews career development in the South African context with a focus on indigenisation and practical application.

Career development is concerned with broader phenomena than simply the choice of a career or occupation. It implies 'for most people a lifelong process of getting ready to choose, choosing, and typically continuing to make choices from among the many occupations available in our society' (Brown & Brooks, 1990: xvii). Career development encompasses all the life roles that people play. Wolf and Kolb (1980), in Patton and McMahon (1999: 4), stress that 'career development involves one's whole life, not just occupation. As such it concerns the whole person ... More than that, it concerns him or her in the everchanging contexts of his or her life'.

## THEORIES OF CAREER DEVELOPMENT

Many authors regard the behavioural sciences and, in particular, career development theory to be in their infancy in terms of development (Brown & Brooks, 1990; Isaacson & Brown, 1993; Patton & McMahon, 1999). Nevertheless, since the emergence of the first theory on career development in 1909 – Parsons' Trait and Factor Theory – productive and innovative research and theorising in the field of career development has accumulated into a broad research base that is evolving and growing rapidly in the 21st century.

Career development theories serve as a frame of reference for professional career counsellors in their approach to clients. The fundamental principle that professionals perform effectively only when they have mastered the knowledge and theory on which their profession is based makes it imperative for them to comprehend the theoretical basis of career development.

In this chapter the discussion of the theoretical framework of career development is divided into two sections. The first section refers to established theories of career development, while the second explores emerging or new theories. The emerging theories address issues of diversity in terms of race, gender and culture better than do existing theories. However, existing theories provide a logical overview of the evolutionary

process of career development, and thus give a clear perspective from which emerging theories can be conceptualised.

## Established theories

Many international theories describing career development have been designed in the past century. Although none have been conceptualised to explain career behaviour in the South African context, the historical basis of these existing and established theories is highly useful. A thorough knowledge base of these theories is necessary in order to:

- Contextualise career development and contribute to our overall understanding of career behaviour. Herr and Cramer (1996: 170) believe that 'each theory has its own measure of quality in adding to the comprehensiveness of insight about career behaviour that now exists'.
- Explore the relevance of these theories for the South African multicultural, multiracial context. Stead and Watson (1999) indicate that the indigenisation of career psychology is necessary to the provision of a future perspective on how career theory could develop in the South African context.

**Career development:** The collection of psychological, sociological, educational, physical, economic and chance factors that combine to shape the career of an individual over his life span.

Many attempts to categorise career development theories have been made, but little agreement in the literature exists with regard to the grouping of these theories (Tolbert, 1980; Herr & Cramer, 1996; Herring, 1998; Patton & McMahon, 1999). According to Herring (1998), a classification of the various career development theories can be difficult and misleading. Theoretical positions often have a certain degree of commonality, slightly different interpretations of basic assumptions and often contradictory views of other data (Isaacson & Brown, 1993). However, career development theories are easier to understand if grouped together according to a cluster of somewhat similar concepts.

Table 16.1 provides an overview of existing career development theories. The categories were identified by means of a synthesis of the work of Tolbert (1980), Isaacson and Brown (1993), and Herr and Cramer (1996). The table illustrates one way of several in which such theories can be grouped. Not all the theorists are included and no indication of the contribution each theorist has made to career development is given. Additional reading is thus *essential* for a comprehensive understanding of career development theories.

Table 16.2 summarises certain theoretical views which, in the author's opinion, played an influential role in career development and, according to Brown and Brooks (1996), are *currently influencing* either research or practice.

Table 16.1 Theories of career development

| Classification of theories | Theorists | Major concepts |
|---|---|---|
| Trait-and-Factor, Actuarial or Matching | Parsons, Williamson | • Is rooted in the psychology of individual differences, applied psychology and differential psychology. An individual is seen as possessing a unique set of traits/ characteristics, many of which can be identified by testing and matched with requirements for successful job performance. |
| Developmental approach | Super, Ginzberg, Tiedeman and O'Hara | • Integrative approach, stressing the interaction of personal and environmental variables in career development. |
| Sociological or Economic | Blau, Gustad, Miller and Form, Hollingshead | • The role of social organisations is emphasised.<br>• Market-related (social and economic) factors have an influence on career development. |
| Psychological | Bordin, Nachman, Segal, Galinsky | • Intrinsic individual motivational or process variables are regarded as significant factors in making career decisions.<br>• Owing to differences in personality structures, individuals develop certain needs or drives and seek satisfaction of these through occupational choices. |
| Decision theory | Gelatt, Hershenson and Roth | • Emphasis is on the process of decision-making. Decisions are the conjunctions between self and environment. |
| Social learning | Mitchell, Jones, and Krumboltz, Thoresen and Ewart | • Individual personalities and behavioural repertoires that persons possess arise primarily from their unique learning experiences.<br>• Is based on learning principles which suggests that individuals learn about themselves, their preferences and the world of work through direct and indirect experiences. They then take action based on this knowledge- and skill-based learning. |
| Needs theory | Roe, Holland, Hoppock | • Is derived from personality theories.<br>• Focuses on the interaction of person (needs) and context (family) variables. |

Table 16.2 Selected influential theories on career development

| Theoretical approach | Major concepts | Critique |
|---|---|---|
| Super's developmental approach | • Super labelled his approach as a 'differential-developmental-social-phenomenological career theory' (Herr & Cramer, 1996: 232).<br>• Career development is a complex process that requires a synthesis of various disciplines (e.g. psychology and sociology). Super incorporated the work of Buehler (1933), Hoppock (1935), Miller and Form (1951), Rogers (1951), Ginzberg, Ginsburg, Axelrad and Herma (1951), and Kelly (1955) into his theory. The result is a 'segmental theory' describing three key aspects of career development: life span, life space and self-concept.<br>**Life span**<br>• Career development is a lifelong process comprising specific stages during which career choices are made.<br>• Super (1990: 225-26) conceptualises career as 'the life course of a person encountering a series of developmental tasks and attempting to handle them in such a way as to become the kind of person he or she wants to become'.<br>• Super (1990) identified the stages of career development in typical sequences as growth (childhood), exploration (adolescence), establishment (early adulthood), maintenance (middle adulthood) and disengagement (late adulthood).<br>• Each life stage can be subdivided into specific developmental tasks for that period. Mastering these tasks leads to a high level of **career maturity** or readiness to make a career choice appropriate to that life stage. | • This theory is based on extensive research.<br>• It continues to stimulate career development research (Niles & Harris-Bowlsbey, 2001).<br>• The theory is a well-ordered, highly systematic representation of the process of maturation (Osipow, 1968).<br>• According to Osipow (1968), more attention could be given to social and economical factors.<br>• Constructs such as ethnic identity, discrimination, unemployment and worldview, which are important factors in the African context, are not reflected by Super's theory (Stead & Watson, 1999). |

**Life development:** Career development theory tends to view the individual in her total life, with work, family and self-development concerns being interrelated.

**Life roles:** The major roles we play in our lives.

**Career adaptability:** Readiness for career decision-making in adulthood.

**Stages of career development:** Approaches to career development propose that people progress through a sequence of stages, each of which poses a set of tasks or challenges. Each stage is associated with an approximate age range, although variations in ages are generally acknowledged.

| | | |
|---|---|---|
| | **Life space**<br>• Life space represents the roles individuals play during their lives and takes into account the context of their lives (Super et al., 1996).<br>• Super identified these five major roles occupied by most people: student, worker, citizen, homemaker and leisurite.<br>• Roles interact with each other and provide each individual's life with a focus. Super et al. (1996: 129) remind us that 'to understand an individual's career, it is important to know and appreciate the web of life roles that embeds that individual and her or his career concerns'.<br>• Career decision-making is influenced by personal determinants (values, needs, intelligence and aptitudes) and situational determinants (peer group, school, family, community, society, the labour market and the economy).<br>**Self-concept**<br>• Super et al. (1996: 18) define the self-concept as 'a picture of the self in some role, situation or position, performing some set of functions, or in some web of relationships'.<br>• Super (1990) proposes that the degree of satisfaction people attain from work is proportional to which they are able to implement self-concepts. | |
| Holland's personality type approach | • Behavioural style or personality type is the major influence in career choice and development.<br>• This approach is regarded as a structural-interactive theory because it provides an explicit link between various personality characteristics and corresponding jobs. Holland (1992: 2) suggest that structural-interactive theories have the following in common:<br>– The choice of an occupation is an expression of personality and not a random event, although chance plays a role.<br>– Members of an occupational group have similar personalities and similar histories of personal development. | • Holland's influence in career theory and practice has been significant. This is demonstrated by the application of his theory to a wide range of career materials, such as interest inventories, books and computer programs.<br>• Zunker (1994) states that Holland's theory focused more on the factors that influence career choice than on the developmental process that leads to career choice. |

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| | – Because people in an occupational group have similar personalities, they will respond to certain situations and problems in similar ways.<br>– Occupational achievement, stability and satisfaction depend on congruence between one's personality and the job environment.<br>• Four assumptions constitute the heart of Holland's theory:<br>(a) Most people can be categorised as one of six types: realistic, investigative, artistic, social, enterprising or conventional.<br>(b) There are six kinds of environments: realistic, investigative, artistic, social, enterprising and conventional.<br>(c) People search for environments that will let them exercise their skills and abilities, express their attitudes and values, and take on agreeable problems and roles.<br>(d) A person's behaviour is determined by an interaction between her personality and the characteristics of her environment (Holland, 1973). | • This theory does not adequately address the career development needs of women and of racial, ethnic and other groups (Holland, 1992).<br>• A South African study done by Brand, Van Noordwyk and Hanekom (1994) determined that the Self-directed Search was effective in assessing interest in non-Western cultures (Stead & Watson, 1999). |
| Bandura's (1982a) theory of accident or chance | • Career development occurs in social and economic contexts in which unforeseen events may deflect or disrupt patterns of choice and development that were rationally planned. These views suggest that chance encounters, influential people and fortuitous or other events are likely to occur and shape or change individual career behaviour (Herr & Cramer, 1996). | • Salomone and Slaney (1981) find that chance factors were much less important than were personal qualities in influencing career decisions. |
| Gottfredson's (1996) theory of circumscription and compromise | • This theory offers a developmental, sociological perspective of career development. The theory is focused primarily on the career development process as it relates to the types of compromises people make in formulating their occupational aspirations.<br>• Gottfredson developed her theory, in part, to address the fact that men and women, regardless of social class and race, tend to differ in occupational aspirations. | • Gottfredson's theory emphasises gender and social class background, an aspect not accounted for by many other theories on career development. |

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| | • Circumscription involves the process of eliminating unacceptable occupational alternatives based primarily on gender and social class. Compromise involves the process of modifying career choices due to limiting factors, such as availability of jobs. | |
| Krumboltz's (Krumboltz et al., 1976) learning theory of career decision-making | • This theory, based on learning principles, suggests that individuals learn about themselves, their preferences and the world of work through direct and indirect experiences. They then take action based on this knowledge- and skill-based learning.<br>• Krumboltz identified four categories of factors that influence career decision-making (Tolbert, 1980):<br>(a) Genetic endowment and special abilities (such as race, gender, intelligence, musical ability, muscular coordination).<br>(b) Environmental conditions and events (such as community and neighbourhood emphasis, number and nature of training opportunities, family characteristics).<br>(c) Learning experiences (such as instrumental and associative learning).<br>(d) Task approach skills (such as problem-solving skills, work habits, emotional responses).<br>• Krumboltz, Mitchell and Gelatt (1976: 75) state: 'It is the sequential cumulative effects of numerous learning experiences affected by various environmental circumstances and the individual's cognitive and emotional reactions to these learning experiences and circumstances that cause a person to make decisions to enrol in a certain educational program or become employed in a particular occupation.' | • This theory recognises the importance of context in career decision-making. Many contextual elements such as race, gender and ethnic origin, as well as the interaction between these, are taken into consideration (Mitchell & Krumboltz, 1990).<br>• Although this theory does not explain career changes (Brown & Brooks, 1990), the comprehensive conceptualisation of decision-making and interventions is seen as 'having considerable compatibility with major aspects of Super's self-concept theory, with the development of interests as depicted by Holland's hexagon, and with Gottfredson's theory of occupational aspirations' (Herr & Cramer, 1996: 200). |

Most of the research relating to career development originated in the USA, and none of the theories summarised in Table 16.2 have been specifically designed for the South African context.

### Emerging theories

The information explosion and technological development associated with the 21st century are rapidly changing the world of employment. Career boundaries have become more varied, some occupational fields

are disappearing and new skills must be mastered. Career counselling practices must adapt to make allowances for these changes. According to Maree, Bester, Lubbe and Beck (2001: 325): 'Innovative methods, techniques and structures for effective career counselling should reflect innovation in the field of career counselling.'

Emerging theories provide a vital rejuvenation within the career field and lead to new advances in the theory and practice of career development.

Several promising career development theories have emerged recently. They are:

- the values-based model of career choice developed by Brown (1995)
- the social cognitive career theory (SCCT) developed by Lent, Brown and Hackett (1996)
- the cognitive information processing theory (CIP) developed by Peterson, Sampson, Reardon and Lenz (1996)
- the integrative life planning (ILP) model of Hansen (1997)
- the postmodern approaches of Carlsen (1988), Peavy (1992), Savickas (1993), Young, Valach and Collin (1996), and Cochran (1997).

Niles and Harris-Bowlsbey (2002) indicate that these emerging theories:

- are built on a solid foundation of research support
- are applicable to diverse client populations
- have practical utility and, therefore, are particularly useful in advancing career development practice.

Table 16.3 provides a summary of the emerging theories, and is adapted from the work of Patton and McMahon (1999), and Niles and Harris-Bowlsbey (2002).

## INDIGENISATION OF CAREER THEORIES

Career development and counselling practices in South Africa are in general based on an **objective perspective**. Sophisticated media such as psychometric tests, worksheets and computer programs are currently being utilised in an attempt to form an objective view of an individual that could be matched with essential characteristics of a given career. However, these practices have the following shortcomings (Maree et al., 2001):

- Current approaches and methods based on American and European research are not applicable to South Africans, with our multicultural and varied socio-economic strata.

**Indigenisation of career development:** The process of taking development concepts from elsewhere (such as career development theories from the USA) and introducing modifications to make them fit into the South African context.

**Objective perspective:** Our objective view is obtained by means of objective methods such as psychometric tests.

Table 16.3 Emerging theories of career development

| Theoretical approach | Major concepts | Critique |
|---|---|---|
| Social cognitive career theory (SCCT) of Lent, Brown and Hackett (1996) | • SCCT was derived primarily from Bandura's (1986) revised social cognitive theory, informed by the self-efficacy theory of Hackett and Betz (1981) and the learning theory of Krumboltz.<br>• SCCT focuses more on the specific cognitive factors that influence learning experiences and career decision-making behaviour. In addition, it pays attention to how interests, abilities and other variables inter-relate and how personal and environmental factors influence career decisions. An emphasis is placed on the individual as active agent in these processes.<br>• Three social cognitive variables (self-efficacy, outcome expectations and personal goals) interact in a dynamically reciprocal way in the self-regulation and maintenance of an individual's behaviour:<br>(a) Self-efficacy refers to individual's beliefs about their capacity to organise and execute courses of action required to attain designated types of performances. Self-efficacy beliefs provide answers to questions pertaining to whether we can perform specific tasks.<br>(b) Outcome expectations refer to beliefs about probable consequences of a particular course of action. A relevant question to ask: 'What job opportunities am I likely to have if I earn a doctoral degree?'<br>(c) Personal goals refer to the determination to undertake a certain activity to produce a particular outcome.<br>• Personal inputs (e.g. predisposition, gender and race) interact with contextual factors (e.g. culture, geography, family, gender role | • SCCT embraces a constructivist view of the individual as an active shaper of his life.<br>• Although SCCT is a relatively new theory Patton and McMahon (1999) point out that the rich theoretical and empirical base on which it has been developed make it a valuable additional theoretical model designed to explain individual variability in career interest, choice and performance.<br>• Stead and Watson (1999) raise the following points:<br>– SCCT considers the socio-cultural context in which learning takes place. It furthermore recognises the important influence of the environment on the career development process.<br>– Not much research on SCCT has been done in the South African context. Research could further explore the influence of gender, ethnicity and socio-economic status on career-related self-efficacy and outcome expectations in South Africa. |

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| | socialisation) and learning experiences to influence our self-efficacy beliefs and outcome expectations. Self-efficacy beliefs and outcome expectations shape our interest, goals, actions and, eventually, attainments. However, these are also influenced by contextual factors (e.g. job opportunities, financial resources) (Niles & Harris-Bowlsbey, 2002). | |
| Cognitive information processing (CIP) of Peterson, Sampson, Reardon and Lenz (1996) | • This approach includes several dimensions. The first three domains are those traditionally included in career theories: self-knowledge (values, interests, skills), occupational knowledge (understanding specific occupations and educational/training opportunities) and decision-making skills (understanding how we typically make decisions). The fourth domain is meta-cognitions and includes self-talk, self-awareness, and the monitoring and control of cognitions (Niles & Harris-Bowlsbey, 2001).<br>• Peterson et al. (1996) designed a generic model of information-processing skills related to solving career problems and labelled it 'the CASVE cycle'. These skills are communication (identifying a gap or career problem from external and internal problem signals), analysis (inter-relating problem components and determining what is required for problem resolution), synthesis (creating likely alternatives), valuing (prioritising alternatives) and execution (converting the optimal alternative into action). | • Interaction between person and environment is not explained by this theory.<br>• An adequate description of how the factors of self-knowledge, occupational knowledge, generic information processing skills and meta-cognitions interact with the individual has not been adequately provided.<br>• CIP does not adequately relate to ages of development of some of these skills, particularly higher order skills. The universality of these skills and the impact of contextual issues on these processes have not been clarified (Patton & McMahon, 1999). |

**Self-knowledge:** An individual's accurate understanding of his strengths, interests, abilities and values. A holistic understanding of our self-concepts across life roles provides the foundation for educational and career exploration.

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| | • Positive self-talk (e.g. 'I am capable of making a good career choice') is required for career problem-solving. Negative self-talk (e.g. 'I can't make a good choice') leads to career indecisiveness. | |
| Values-based approach of Brown (1995) | • Brown used Rokeach's (1973) notion that values are beliefs containing cognitive, affective and behavioural dimensions. This approach also draws upon the work of Super (1953; 1990) and Beck (1987).<br>• Values serve as standards by which people evaluate their own actions and the actions of others. Values direct our behaviour in specific directions and towards particular goals.<br>• Genetics and the environment shape values. Environmental factors influencing the development of values include family, media, community, school and culture.<br>The approach is based on six propositions:<br>(a) Values with high priorities are most important determinants of the choices made.<br>(b) Values are acquired from society, and each person develops a small number of values.<br>(c) Variation of subgroups in society can be expected.<br>(d) The result of role interaction is life satisfaction, which differs from the sum of the marital, job, leisure and other role satisfaction indices taken separately.<br>(e) High functioning people have well developed and prioritised values.<br>(f) Success in any role depends on the abilities and the aptitudes required to perform the functions of that role (Niles & Harris-Bowlsbey, 2001). | • This approach fills a gap in the literature related to values as dimensions of career development.<br>• It is a useful supplement to Super's theory, for example.<br>• More research is needed to examine the theoretical assumptions.<br>• More extensive information is needed relating to cultural influences on values development and how these influences impact on the career counselling process (Niles & Harris-Bowlesby, 2001). |
| Integrative life planning (ILP) of Hansen (1997) | • Relates to the emphasis on integrating mind, body and spirit.<br>• Multiple aspects of life are interrelated.<br>• Holistic approach by encouraging people to connect various aspects of life.<br>Occupational choices are intertwined with other life role choices and must be considered within the greater context of our lives.<br>• It focuses on adult career development. | • ILP offers a creative approach to life planning.<br>• Few models include spirituality as an important aspect of career development.<br>• It has much in common with postmodern approaches. |

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| Postmodern approaches of Carlsen (1988), Peavy (1992), Savickas (1995), Young, Valanch and Collin (1996), Cochran (1997) | **Creating narratives**<br>• Highlights personal agency in career development.<br>• Composing a narrative is the primary vehicle for defining the main character to be lived out in a certain career plot.<br>• A narrative approach begins with the identification of a career problem. Career problems are defined as gaps between our current career situation and the desired career future. In the narrative sense, the career problem presents the beginning, and the middle relates to the way we are to move from the beginning to an end.<br>• Career counselling process involves a number of 'episodes' that are incorporated into counselling, depending on each client's career concerns.<br><br>**Contextualising career development**<br>• Process that is sensitive to immediate (e.g. family, cultural heritage, level of acculturation) and distal (e.g. economics, environmental opportunities) contextual factors, which influence the meaning-making process of individuals.<br>• Career development is viewed as an interaction between individual intention and social context.<br>• People construct their career through action. Career and action are related constructs through which people make sense out of their lives and through which events in people's lives acquire meaning. Goal-directed actions are important.<br>• Career counselling should be conducted in settings where career action actually occurs (e.g. the workplace).<br>• The client's significant others should be involved in the process of career counselling.<br>• Language and narrative play an important role in interpretation.<br><br>**Constructivist career development**<br>• Based on the pre-existing theory of Kelly (1955), which postulates that people are active organisers of their own experiences.<br>• We construct meaning through the decisions we make and the actions we take.<br>• Career counselling interventions aim at exploring and reconstructing the client's unique matrix of meaning.<br>• Career counselling outcomes are considered in terms of their 'fruitfulness' (changed outlook or new perspective on some aspect of life).<br>• Interventions are directed at helping clients think, feel and act more productively in relation to career concerns.. | • Is applicable to diverse client populations.<br>• Such approaches have a clear link with practice.<br>• Further, extensive research is necessary. |

**Decision-making:** A systematic process in which various data are utilised and analysed according to explicit procedures, and outcomes are evaluated in terms of desirability. It combines the affective and cognitive domains in order to achieve a balance between objective and subjective rewards.

- Similarly, psychometric testing in the South African context is problematic because the tests have not been designed for our multicultural population. Research done by Stead and Watson (1999) shows that the validity and reliability of test scores of American career instruments in the South African context yield mixed findings. But, as the authors (1999: 217–218) point out, 'this does not imply that there are few similarities in career psychology between South Africa and the USA, but merely suggests that American career counselling and research are not necessarily an accurate reflection of career phenomena in South Africa'.

The indigenisation of career development theory is an attempt to address the problem of career development theories being inapplicable to the South African context. Although Stead and Watson (1999) warn against embracing Euro-American perspectives in an attempt to contextualise career development in the South African context, they propound that the meaning of existing and established theories on career development should be determined for the South African context. They suggest further that counsellors and educationists should develop and employ theories, models and techniques indigenous to the South African context.

**Career maturity:** The repertoire of behaviours necessary to identifying, choosing, planning and executing career goals available to an individual as compared with those possessed by an appropriate peer group. It is also being at an average level in career development in relation to our age.

The shortcomings of existing career development and counselling practices in South Africa can be avoided with a shift in approach that takes into consideration social and historical factors relating to the career challenges local individuals face. Savickas (1993) believes that counsellors should be allowed the freedom to implement existing as well as new models and methods to lead their clients to active participation in the process of career counselling. An important component, according to Savickas (1993), that should be included in this process is the 'subjective' experience of the client, which contributes to the meaning ascribed to the process. This can be achieved by assisting clients in constructing their life stories or the stories of their future careers. The career counsellor or educator needs to facilitate the process during which the client interprets her interests, potential and career values, and designs her career story (Maree et al., 2001).

**Subjective perspective:** The meaning we attach to events in the past and present of our lives.

**Values:** Principles that we regard as important to leading a meaningful life.

Important aspects that must be included in any career development and career choice process include:

- identification of needs, values and interests
- evaluation of life roles, career maturity and decision-making ability.

**Career information:** A collection of facts about occupational and educational opportunities, which inform career decision-making.

It is also important to investigate other relevant factors (e.g. personality, ability, socio-cultural factors) and obtain career information which will aid in making a career choice and planning a career. In this respect,

Maree and Ebersöhn (2002: 7) state: 'Regardless of what our theoretical stances are, allegiance should never be given to a certain theory or theoretical approach, but [rather] to the ideal of administering career counselling that enables us to facilitate career choices that are in our client's best interests.'

**Career awareness:** The inventory of knowledge, values, preferences and self-concepts that an individual draws on in the course of making career-related choices.

## CAREER DEVELOPMENT THEORY IN PRACTICE: A SOUTH AFRICAN CASE STUDY

The following case study illustrates a possible approach to facilitating career development in the South African context. Bromley (1986:182) defines the case study method as 'a basic form of scientific inquiry that underpins effective professional practice especially in relation to human problems'. This case study shows that both quantitative and qualitative techniques are useful in the process of career facilitation. The postmodern approach of Bester (1999) was used to assist John (not his real name), aged 18, to make a career choice.

### The case study

*Identification data*

John, 18, is an African male who wishes to qualify as a teacher. He has done well at school and gained university entrance. He is fluent in English, Afrikaans and Tswana. He prefers the career facilitation process to be in English as this is the language in which he has received formal instruction for the past 12 years.

*Reason for referral*

John needs counselling with regard to his career choice because he is fearful of making the wrong decision. He has done extensive research on teaching as his choice of career, but still feels uncertain about committing to the studies.

*Relevant background information*

John is the only son in a family of four children. His family attaches great value to tradition, in this case the family tradition of male members becoming teachers in the community and thus serving the community. John expresses the wish to follow in the footsteps of his father and uncles, who were all successful in teaching as a profession.

Although he feels strongly about teaching as a career, he also is hesitant to venture in this direction because he fears that he will not have sufficient time and opportunity to live his dream, which is to start his own business as a carpenter. According to John his father taught him from an early age to make a variety of articles from wood, and recently he has given more artistic expression to the articles he designs and creates. It gives him great pleasure to create something in wood, and to see the delight on the faces of the people who buy his articles. John does carpentry on a part-time basis, thus earning an income, which augments the small allowance he receives from his family. According to John's report from school, he is a responsible and hardworking individual who shows creativity in his assignments.

John values his family and his religion, and he would like to be respected by the people in his community. Although he feels that it is important to earn a good living, he would rather follow his dream than be rich.

*Media (tests) administered*

The focus in this case study is primarily on qualitative methods, which can facilitate the expression of the client's subjective experiences. John expressed the wish not to be subjected to too many psychometric tests because he feared that the results might categorise him and give a false reflection of his personality.

John was encouraged to narrate his life story as clearly as possible using counselling techniques such as active listening, narrative questioning, reflection, summarising and empathy (Egan, 1998). After several sessions John requested to be assessed with a personality test to verify how well he knew himself. The '16 Personality Factor (16 PF) Questionnaire' was used and the results obtained from this assessment were explored in a further counselling session.

*The process*

The process was divided into phases, each with its own outcome, as follows:

- **Phase one**
  At the beginning of the counselling process John was orientated with regard to the following aspects:
  - The counselling process comprises six to eight sessions, depending on the progress of the client.

- The counsellor's role is to facilitate the process while the client will actively participate therein.
- The client alone will exercise the choice of career and must take full responsibility for any decision made.
- A cooperation agreement is compiled between the counsellor and the client.

The **aim** of this phase was to assist the client in telling his story and clarifying the reason for seeking counselling. In order to facilitate John's narrative, the 'Successful Experiences' technique (Cochran, 1997) was used. Here he was requested to compile a list of successful experiences that he enjoyed. He narrated the first experience – how it began; how the achievement came about; how it ended; what he was thinking, feeling and doing throughout. He then repeated the narration so that his specific strengths could be identified, including basic capabilities (general intelligence, numerical aptitude), skills or abilities (planning, persuasion), special knowledge and character traits (persistence). The same was done for the other experiences on the list.

The **outcome** of this phase was that John identified the following strengths within himself (only the most relevant strengths are mentioned):

- He was a highly dedicated and hardworking person who was likely to succeed in any venture, whether it be teaching or in business.
- Being able to work with people on all levels, and specifically being able to guide them and act as a role model in his community, was extremely important to him.
- He enjoyed passing on his knowledge to others and felt that he was gifted in this regard.
- He felt excited and challenged by business matters.

- **Phase two**

The **aim** of this phase was to assist the client, John, in creating a future narrative and facilitating his choice of career. The 'Life Chapters' technique (see Cochran, 1997) was used for this phase. John was requested to view his life as an autobiography, which he had to divide into chapters and give a title for each chapter. Reflexive questions were then asked regarding each

chapter, including questions relating to conflicts, developmental experiences, primary goals, interests, personality traits, strengths and weaknesses, and the influence of significant others. Towards the end of this phase, the 16 PF was administered at John's request. The results obtained were used in a counselling session.

The **outcomes** of this phase were as follows:

- John had a strong aptitude in the field of enterprise and possessed superior interpersonal abilities.
- His highest interests were in the fields of business, aesthetics and social service. He showed a clear preference for working with his hands and specifically creating wooden objects with artistic qualities.
- He wanted to maintain his strong family relations and wished to continue with the family's traditions. He wanted to be successful in the eyes of his family and community. He wanted to earn a good living, but did not necessarily want to be affluent.
- His self-concept appeared to be adequate. However, he doubted his abilities and was fearful of failing at university, and thus disappointing his family.
- The results obtained from the 16 PF correlated with John's knowledge about his personality. In brief, it indicated that John is outgoing, emotionally stable and imaginative. He tended to be humble and trusting, and valued the opinions of others. The 'up' and 'down' sides to each of these personality traits were discussed and dealt with during a counselling session.

- **Phase three**

  In this final phase the counsellor brainstormed the following issues with John:

  - Which problems or barriers would prevent him from actualising his future career story?
  - Which people or institutions could provide the necessary information relating to his future career?
  - Which action steps could he take to ensure that his future career became a reality?

The **aim** of this phase was to help John co-construct a future reality (the preferred scenario) and an agreement between himself and the counsellor concerning the best way forward.

The **outcomes** of this phase were as follows:

- John decided to explore the possibility of training as a teacher in the field of Technology Education. He planned to contact the university of his choice, investigate the course content and enter into discussion with lecturers at the university.
- John would explore the possibility of attending short courses on entrepreneurial skills during his holidays with a view to starting his own small business. He also undertook to read up on starting his own business, and have discussions with members in his community who have already achieved success with their own businesses.
- He would continue to be actively involved in his community by participating in community projects and religious gatherings. He wanted to make a contribution to his community.
- His family was one of his resources, and he decided to involve them in his action plan by entering into discussion with the family members to gain financial and emotional support.

John's **concluding reflections** on the counselling process indicated that he felt relieved at being able to share his concerns about his career choice. He had to work hard at achieving clarity but was pleasantly surprised at the feeling of empowerment it created within him. He felt that he was able to express and explore his own feelings without being pressured and influenced by the opinions of others. Although John felt that he was ready to make his career decision after the counselling process was completed, he was still slightly apprehensive about failing his course. John ascribed this feeling to the fact that he did not yet know what would be expected of him, and he resolved to deal with the problems as they arose during his studies.

## CONCLUSION

The theories described in this chapter represent an extensive basis of how theorists conceptualise career development. Given the complex

nature of career development and career choice, it is understandable why no single theory sufficiently addresses all the aspects that influence the subject at hand.

Although existing theories of career development were designed primarily for white American/European males, the theories nonetheless provide a historical basis from which career behaviour and new theories can be conceptualised. Emerging theories of career development provide new notions for career development. Existing career development theories provide a solid foundation for the understanding of career development and behaviour in the South African context.

Extensive research needs to be done to ensure that existing and emerging career theories are adapted, or new theories are explored, in order for them to be appropriate for the South African context.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 Critically evaluate both existing and emerging theories of career development.
2 What is indigenisation of career development theory?
3 How does and can career development occur in the South African context?
4 Identify and discuss contextual factors that will influence career development in South Africa.

## VOICES

It has become critically imperative that career counselling be made accessible to the majority of the South African population. Career counsellors have to focus less on 'matching' individuals with careers and more on empowering them to take primary responsibility.

– Senior career counsellor, Gauteng

I think the narrative approach is a culture friendly approach. It will encourage learners to express their interests in a creative and meaningful way.

– Educator, Pretoria

The postmodern approach to career counselling enhances the communication process between the client and myself, and the client feels more involved in the process. Traditional assessment techniques are sometimes useful especially when a client has limited self-knowledge and needs formal testing to assist them in gaining self-knowledge.

– Student in Educational Psychology, Gauteng

## APPLICATION STRATEGIES

### The values-based approach

Accomplish values assessment through qualitative and quantitative methods. Qualitative methods include card-sorting activities, checklists and guided fantasies. Quantitative methods include the use of inventories such as the Values Scale (Super & Neville, 1986) and the Life Values Inventory (Grace & Brown, 1996).

### The postmodern approach

When founding a future narrative, include constructing a lifeline, using the life chapter exercise (Cochran, 1997) or using guidance material such as the Self-directed Search (Holland, 1985).

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 In what way has my knowledge of the relevant theories changed my perception of career development?
2 What will I do differently now that I have gained information on the various approaches to career development?

## TEN FACTS ABOUT CAREER DEVELOPMENT

1 Career development is a lifelong process concerned with phenomena broader than simply choosing a career or occupation.
2 Career development encompasses all the life roles that people play.
3 Many international theories describing career development exist but none have been conceptualised to explain career behaviour in the South African context.
4 Knowledge of existing theories is necessary not only for the contextualisation and understanding of career development, but also for the exploration of the relevance of these theories for the South African multicultural, multiracial context.
5 Indigenisation of career development theories could be achieved by devising new theories and constructs, or by modifying existing approaches to meet the challenges of the South African context.
6 Counsellors should be allowed the freedom to implement existing as well as new models and methods to facilitate the active participation of their clients in the process of career development.
7 Emerging career development theories such as the values-based model, the social cognitive career theory, the cognitive information processing theory, the integrative life planning model and postmodern approaches show

great promise for the South African context because they are applicable to more diverse client populations.

8 Social and historical factors relating to career challenges which individuals face are important considerations in the process of career development.

9 It is important to include the subjective experience of the client in the process of career development.

10 By assisting clients to construct their life stories or the stories of their future careers (their subjective experience), we enable them to ascribe better meaning to the process.

## SUGGESTED READINGS

This chapter provides you with an overview of both traditional and current career development theories and the application thereof in the South African context. The importance of further reading on the topic of career development cannot be over-emphasised. You should consult the following key resources:

Maree, JG and Ebersöhn, L (2002). *Lifeskills and career counselling.* Sandton: Heinemann Publishers.

The authors provide the reader with a critical description of the main epistemological approaches to career development. The book discusses the importance of dealing with 21st century developments in the course of career counselling and the impact of these developments upon events in South Africa. It also focuses on the need for an interdisciplinary approach to general lifeskills and career counselling.

Niles, GS and Harris-Bowlsbey, J (2002). *Career development interventions in the 21st century.* New Jersey: Merril Prentice Hall.

This text covers a wide variety of theoretical perspectives and emphasises that careers develop over time. It upholds the notion that career development theory and practice should be inclusive and that culturally inclusive career development interventions should be standard practice. The book provides information pertaining to career counselling processes and outcomes that reflect the most recent work in the field. It also highlights developmental approaches to providing career assistance in schools, community settings and in higher education.

Stead, GB and Watson, MB (eds.) (1999). *Career psychology in the South African context.* Pretoria: Van Schaik Publishers.

This book focuses on career psychology in relation to South Africa's past and present, and suggests future directions that career psychology and education in South Africa should take. It also provides an introduction to career theories, career counselling, career counselling

techniques, career education information and guidance. The authors point out that career psychology is integrated with personal counselling.

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PART FOUR

# Assessment and Intervention

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# Educational Psychological Assessment

Carien Lubbe

## INTRODUCTION

There have been significant developments in the field of educational psychological assessment over the last few decades, and even more so in the last few years. This chapter provides an overview of the present status of assessment. Because the field is so large, the chapter can only be a summary of the salient features. We begin with a brief discussion of how assessment can be defined, and why, who, what and when we assess in Educational Psychology.

In Educational Psychology today, we distinguish between **individual** and **systemic** assessments, although these categories should be seen as occupying two places on a flexible continuum rather than as separate entities. Examples of individual assessments are **psychometric testing, dynamic assessment, functional assessment** and **play-based assessment**, while examples of systemic assessments are **eco-systemic** and **community-based assessments.**

We need to remember that Educational Psychology fundamentally addresses three distinctive, though not separate, components:

1 emotional and behavioural aspects
2 learning support
3 career development.

Therefore, assessment is *also* conducted in terms of these three components.

**Dynamic assessment:** Various approaches that are characterised by guided support or learning and used for determining a child's potential for change. It means indicating not only what a child has learned but also what the child is capable of learning. The assessor actively monitors and modifies the interaction with the learner to induce successful learning. As dynamic assessment involves prompting and teaching, it indicates the types of assistance that will help children to do their best. Such assessment focuses not on the amount of knowledge or number of skills that the child possesses, but rather on the potential for the individual to change when guided to do so, i.e. the meta-cognitive processes of functioning (Adelman & Taylor, 1993). Dynamic assessment provides a flexible, process-orientated approach to evaluating learning. It seeks to 'capture what unfolds' in social environments where meanings and perceptions are complex. Learning is not a linear process of acquiring knowledge and skills that can be measured, therefore the focus is not simply on *what* the learner knows or can do, but also on how the learner is developing knowledge and skills, and *how* the learner and the evaluator are

## DEFINING ASSESSMENT

The past decade has seen significant and frequently debated changes and shifts in the way we approach assessment. Theoretical advances and practical experience have influenced each other – new theoretical developments logically influence assessment practice, and in turn the sustainability of service delivery impacts on theoretical assumptions of assessment. Some educational psychologists find this dynamic environment threatening; others respond enthusiastically to the challenges that the changes present, as these provide opportunities for exploring various avenues. For young scholars entering the vast field of assessment, critical thinking should be the compass to guide you towards establishing an assessment framework with which you feel most comfortable.

To conceive a single, unifying definition of assessment is an almost impossible task. Diverse schools of thought exist, each having a different emphasis. However, this may well change in time, and you should therefore decide on a definition that will fit into your framework.

Shonkoff and Meisels (2000: 232) define assessment as 'the process of acquiring information and understanding that will facilitate the child's development and functional abilities within the family and community'. Developmental assessment is designed to enhance our understanding of a child's competencies and resources, and of the caregiving and learning environments most likely to help the child make the fullest use of her development potential. Assessment should be an ongoing, collaborative process of systematic observation and analysis, which involves formulating questions, gathering information, sharing observations and devising interpretations in order to compile new questions.

understanding the process. Thus, interpretation and dialogue are critical. Tracking and understanding the phases of the process becomes as important as judging the outcomes (Fenwick, 2003).

**Functional assessment:** The process of determining the relationship between children's behaviour and the environmental factors that may cause or maintain certain behavioural patterns. The broader contextual setting must therefore be taken into account. Rating scales, direct observation and experimental methods are used.

## WHO, WHERE AND WHEN DO WE ASSESS?

These aspects depend on the specialisation field in which we prefer to work, for example emotional and/or learning difficulties, or career counselling. They also depend on the purpose of those involved, and whether the learner is a pre-schooler, an Aids orphan or a high school student, as this will influence our processes of assessment and intervention. Therefore, there can be no rigid rules – you need to become familiar with a range of flexible options, and engage in lifelong learning.

Two trends that impact significantly on educational psychological assessment are, first, the shift away from isolated psychometric testing towards a more **dynamic assessment culture** and, second, a need for more **collaboration** and **participation** with relevant role-players.

The first trend arises out of questions that are being raised on the appropriateness of the use of standardised tests. A vast body of literature will guide you back to an era in which legendary scholars such as EL Thorndike (1874–1949) and Alfred Binet were experimenting with objective standardised tests and quantifiable scales. This introduced the age of formal standardised testing, which developed alongside the highly acclaimed and accepted procedure of positivist empirical research. Excellent psychometric tests were developed, norms were established for different populations and assessment practices flourished as individuals could be assessed via psychometric test batteries, accurately diagnosed and given the relevant treatment. However, no test can be either completely unbiased or 'culture free', as people of different cultural groups cannot be validly compared. Complicating issues of language and cultural difference, for example different views on intelligence, led to incorrect diagnoses, misplacements and misunderstandings.

Briefly, psychometrics privileges knowledge and skills that are easily quantifiable, and it emphasises the individual, and individual

**Play-based assessment (PBA):** Its outstanding characteristic is the systematic observation of play to determine the child's current functioning. PBA enables adults to conduct an assessment through a play situation familiar to the child. It provides a medium of communication between the parents, significant caregivers, interventionists and the child. The team approach has proved to be the most effective, as the parent becomes actively involved in the assessment. PBA takes place in the child's natural environment, either by observing natural play or play activities introduced by the team.

performance, thereby negating collaboration, the broader ecosystem and the dynamic nature of human learning. It also leads to comparisons between individuals and, by implication, to a culture of ranking.

The second trend stems from the realisation that the use of a 'diagnosis' instrument may exacerbate the barriers between the family members and the professional. It has been found that including family and other relevant people in the assessment process has significant benefits for all involved. Increasingly then, psychologists are bringing in the family, school staff and peers, and other relevant role-players when providing observational information to be included in the assessment process.

**Community assessment:** The compilation of a community profile, which is a description of the resources, characteristics and assets of a community. The identification of this profile within a neighbourhood is a basic step towards mobilising the power of the community. Mapping the communities' assets can assist both families and the community to become empowered. Formal and informal groups of community members can work together to map the assets.

## INDIVIDUAL ASSESSMENT

In the light of the above, assessment on an **individual level** thus focuses on obtaining a holistic view of the child in terms of competencies, assets, strengths and areas of difficulty. Assessment can be done of different aspects of the child's functioning, for example memory and other cognitive abilities, and social, emotional, language, speech, psychomotor and sensorimotor skills. On an individual level, assessment determines the progress of significant developmental achievements, aids in placement and promotion decisions, and diagnoses learning, teaching and emotional or behaviour difficulties experienced by the child. Several strategies or models of assessment can be used, namely psychometric testing (when appropriate), observation, and play-based, curriculum-based, functional and dynamic assessment.

**Collaboration:** The sharing of ideas in a joint decision-making and problem-solving process directed towards a common goal. An atmosphere of mutual respect, support, trust and open communication enhances this process.

The educational psychologist's work must incorporate the education system, whether on a micro-, meso- or macro level. The differing forms of assessment are constantly developing in the field of education, apart from the usual tests/examinations, and are influencing the practice of educational psychological assessments. In addition to focusing on the child, other micro systems – such as the family and classroom situation – must be consulted and assessed, as well as the meso- and macro systems, such as curriculum changes generated by the government. The way in which assessment is done in schools should be taken into account, especially within the framework of outcomes-based education (OBE). This highly important notion is also evident in the literature of other countries, such as the USA or Britain, where the assessment policies and school psychology practices inform each other.

**Observation:** As simple as watching a child or family for a period of time and writing down everything that happens, or as complex as a rigorous naturalistic observation system that pinpoints the behaviours observed. It can be conducted either systematically or non-systematically in either a natural or clinical setting.

The shift towards more dynamic and family-centred approaches have been correlated by and achieved simultaneously with the theoretical

advantages in systemic, ecological and eco-systemic approaches. More collaboration and information sharing has begun to take place between professionals, with multi-disciplinary assessment starting to come into its own. The child is nested within a family, which itself is embedded within a larger community system; this in turn results in the need for many people interacting in multiple settings.

## SYSTEMIC ASSESSMENT

An advantage of the **systemic approach** to assessment is that a holistic picture of the child can be obtained owing to the increased input and varying opinions and views of all involved. Thus a more relevant and realistic assessment becomes possible, along with an increase in the sustainability of the resulting intervention to enhance the family's ability to deal with current and future situations.

The transition to a more family-centred assessment may be difficult in terms of resources available to the practitioner. Joint involvement of numerous role-players, what to assess, where to assess, the questions or concerns of the parents – these are some of the complex factors that need to be addressed. Other challenges that the educational psychologist faces are an increased time commitment and finding solutions to logistical problems concerning the scheduling of numerous multiple assessments and team meetings. Professionals need to learn to respect each other's expertise and work in an environment of professional cooperation, as individual personalities and other factors such as status can disrupt the effective functioning of a team (Bergen, 1994).

The current move towards trans-disciplinary assessment is showing valuable advantages. Finding creative solutions together rather than relying exclusively on a referral to expert systems necessitates an ability to identify assets from the broader community (Alant, 2002). A trans-disciplinary model entails team members from a variety of disciplines working together with the family, which also forms part of the assessment team. All the members learn the basic terminology, and observe and record aspects of the child's behaviour or relationships. Role release of the different disciplines is essential. The strengths of this approach are comprehensiveness, a mutual purpose for all involved and collaboration.

There are four kinds of assessment teams, as Table 17.1 summarises.

**Curriculum-based language assessment (CBLA):** The process of identifying and analysing potential gaps between the linguistic demands of a particular context and the learner's linguistic competence (Losardo & Notari-Syverson, 2001).

**Naturalistic assessments:** These are implemented in the context of typical routines of the child (the naturalistic context) and involve individuals who have the best opportunities to interact with the child on a regular basis (e.g. caregivers and teachers). Familiar adults, using a combination of categorical, narrative and descriptive tools, observe the child's functional developmental skills. The information, collected within the own environment, is likely to provide an accurate view of the child's true functioning needs. This is especially important for a child whose family background is different from the mainstream culture of the assessor (Losardo & Notari-Syverson, 2001).

**Authentic assessment:** Tasks that are completed in a real-life context, for example writing a letter to a friend or swimming. It is included in performance assessment.

Table 17.1 Assessment teams

| Unidisciplinary | Interdisciplinary |
|---|---|
| Assessment is done by one person who represents a discipline. The individual is responsible for conducting all of the assessments. | Separate assessments are done by team members, but each member is responsible for sharing own findings with the others. This model builds on the strengths of the multidisciplinary team, and includes the family as part of the team. The team comes together to discuss the results, then develops a support plan together. It is usually up to one person – most often the educator – to implement the plan. Problems may arise in terms of terminology, if it does not have shared meaning. |
| **Multidisciplinary** | **Trans-disciplinary** |
| Professionals from a variety of disciplines work independently of one another, each primarily concerned with the clinical issues of their own discipline. They conduct separate assessments, write separate reports and implement separate goals. It is up to the family to integrate the results and manage their child's progress. | Members of a team from various disciplines, as well as family members, plan and conduct the assessment. They share the information and work together to implement a unified service plan. There is a crossing of discipline lines and role release takes place. |

## INFLUENCE OF CERTAIN APPROACHES

**Resource-based approach:** An approach that places emphasis on developing partnerships with families – which, along with communities, have both assets and strengths (Trivette, Dunst & Deal, in Shonkoff & Meisels, 2000) – to empower them to make decisions and provide appropriate interventions independent of professional practitioners. In essence the emphasis is on the sustainability of interventions by the professional practitioner/psychologist.

Resource-based, asset-based, postmodern and narrative approaches are in the process of changing the face of assessment in fundamental ways. The field of assessment is currently characterised by networking, collaboration and an equal status of all participants involved in an effort to mobilise resources and assets at all levels.

The **resource-based model** of assessment developed by Dunst and Trivette (in Shonkoff & Meisels, 2000) assumes that families and communities have assets and strengths. Emphasis is placed on **developing partnerships** with families and on **empowering** them to make decisions and eventually be independent of the psychologist. The model recognises that the quality of the relationship predicts the sustainability and usefulness of the intervention, and that communities and intervention programmes can provide opportunities for supporting a child's development and competence. It seeks to promote families' participation in opportunity factors as well as to reduce the impact of risk factors.

This approach has three components:

1 **Sources of support** (personal social network members, associational groups, community programmes, professionals and specialised services).
2 **Community resource mapping** (mapping various kinds of resources that families can access when necessary).
3 **Building community capacity** (recognising the strengths and assets of a community).

The **asset-based approach**, as described by Kretzmann and McKnight (1993), focuses mainly on community-based assessment and intervention, but can easily be adapted to family and individual assessments. The approach takes an enablement perspective and thus believes that each individual, association, community or organisation has something to offer to the system. Every person has skills, gifts, capacities and resources; if we can mobilise these, internally driven development or positive change will take place. Assets can be identified by using the technique of **asset mapping**, through which a graphic presentation is compiled of the assets of each individual, family, classroom, peer group, school, community or organisations. These assets can be linked to form mutually beneficial partnerships in the immediate support system.

The **postmodern approach** emphasises qualitative techniques and methods, such as descriptions and narratives. The child and family participate in the assessment process, interpret their needs and map out an action plan for themselves. In this way, a traditional assessment procedure is adapted to include parents and other significant people in the decision-making process.

## CONCLUSION

It is important to realise that assessment entails more than a particular focus on a child and her family; the educational psychologist also needs to examine the socio-historic influences that construct the family unit. This stance helps us to understand the family organisation as connected with cultural and economic issues. Community assessments constitute an enlarged focus of enquiry on the wider social and political context, and thus on the broader forces which construct and maintain the child's relations within her family. Even if the educational psychologist is working on an individual level with a child, the relevant contextual factors need to be incorporated for a coherent overview of the child to be obtained. This guards against the perception of the child being the problem, or holding the child's family responsible for the problem.

**Partnerships:** Encourage active engagement between parents and professionals, and between the various professionals themselves. Everyone involved learns and benefits from each other's knowledge, skills, intuition and values. Desirable characteristics of this relationship include trust, mutual respect, perceiving everyone on an equal basis, open and clear communication, and a collaborative attitude.

**Empowerment:** Carrying out interventions in such a way that family members acquire a sense of control over their own development progress as a result of their efforts. Consequently individuals, families and even communities experience success in accessing their resources to meet new challenges. Confidence in their own ability to handle future challenges is greatly enhanced.

**Asset-based assessment:** In line with the asset-based approach, the focus of asset-based assessment is on assessing the child, the family or the community's assets, competencies and resources.

**Assets:** The skills, talents, gifts, resources, capacities and strengths of individuals, organisations, associations and institutions within a community.

It is increasingly recognised that the identification of a child's needs is a matter of resources rather than of anything intrinsic to the child or family. Therefore, the educational psychologist as assessor must have a continuous, reflective awareness of the dynamic processes and interactions involved in all the relationships. He needs to be familiar with the variety of assessment models so that he can select the one that will best serve the purposes of the assessment for the particular people involved. As a profession, we should continually create new ways of thinking about assessment in Educational Psychology. On an ongoing basis, we must evaluate the efficacy, acceptability, practicality and integrity of our assessment practices. Individuals, families and communities are active agents capable of initiating change. Our efforts must focus on mobilising support and opportunities in order to enhance the well-being of our clients.

**Asset mapping:** The process of making a graphic presentation of the identified assets in the system where the caring professional is working. This process of making the assets 'visual' is intended to initiate the process of asset mobilisation (Ebersöhn & Eloff, 2003).

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 What are the critical issues that the educational psychologist should consider with regard to formal standardised testing in the South African context? Discuss and evaluate.
2 What must be taken into account when we use less formal test procedures?
3 What are three different approaches available to the educational psychologist and teacher?
4 How will each approach be applied in a teaching and psychology context?
5 What is the relationship between assessment done in schools and that done by an educational psychologist?
6 As an educational psychologist, what do you need to take into account when assessing a family and/or community?
7 What are the benefits of using a resource- or asset-based approach as a guideline in our assessment practices?

**Family-centred assessment:** Achieved when parents participate fully in the team process of identifying child-related strengths and needs. The parents exchange information with practitioners on their priorities regarding family concerns and preferences for services. Families are not mere recipients of services; they are instrumental in identifying priorities for their children. This places new demands on practitioners to create opportunities for families to acquire the knowledge and skills necessary to strengthen family functioning.

## VOICES

I've realised that I learn more from my students than they learn from me ...

– Grade 12 Geography teacher, Pretoria

Initially I struggled to find time to use different assessment methods, but now I can't imagine doing things differently. Incorporating other aspects than the usual test and memory work, I get to know my students much better and some of the more difficult ones have even started working ...

– Grade 1 teacher, Mamelodi

In a sense we have been working like this all along, focusing on what the child has and on his or her strengths, but now it's emphasised more.

– Retired teacher, Pretoria

I am impressed by the idea that the person evaluating my child will also look at what my child can do, what she's able to do.

– Mother of six-year-old, Pretoria

In the beginning I felt overwhelmed by the idea that I could tell the 'experts' what I thought, I was quite upset in the beginning; this is why I brought my child in for evaluation, so that they could tell me what was wrong, or where did I go wrong ... after a while it was quite a special feeling when I realised that I also knew a lot about my child, sometimes I even knew more than the therapist, I knew instinctively whether something was working for my daughter or not ... I learned a lot about trusting my instincts and applying what I have read elsewhere ...

– Mother of 10-year-old, Pretoria

Everyone can benefit from asset mapping ... I've got to know myself so much better ... I realised a lot about me and my family that I haven't focused on before.

– Fourth year student, University of Pretoria

**Enablement:** Creating opportunities for family members to become more competent and self-sustaining with regard to their ability to mobilise their social networks to attain desired goals.

**Curriculum-embedded assessment (CEA):** Implements the child's own curriculum and preferably takes place in the school or a similar learning environment. Observations, portfolios, informal checklists and/or interviews can be used to evaluate the child's progress with regard to the curriculum, as well as the curriculum itself.

## APPLICATION STRATEGIES

The strategies are as follows:

- Be descriptive and graphic when you assess.
- Share and discuss findings as the assessment process develops.
- Involve participants, such as the caregivers and parents, directly in the assessment process.
- Document assessment findings as quickly as possible.
- Focus on the daily routines in families and school settings, and build the assessment activity into the regular, normal routine used by teachers and parents.
- Write down a special gift, skill or talent of each child.
- Be flexible.
- Focus on appropriate goals and document the assessment process and intermediate outcomes.

**Curriculum-based assessment (CBA):** The assessment of the child, using developmental landmarks or expectancies to determine the goals and objectives for intervention. The specific curriculum, which the school uses and with which the child is familiar, is put aside in favour of the generic curriculum. The purpose of CBA is to assist in planning an intervention programme, to monitor the child's progress and to evaluate the programme.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 What is the nature of the relationship between the school and myself? How can I enhance this relationship?

**Portfolio assessment:** The deliberate collection of products of a child's play or work which demonstrate the efforts, progress and achievement of the child. It is a source of continuous information regarding the child's growth, processes and development, which provide a basis on which the caregiver or interventionist can collaborate with parents. It documents a child's progress using authentic products and descriptions of behaviour in real-life contexts. The child participates in the selection and evaluation of the content, and therefore reflection plays an important part in the portfolio. A complete portfolio can be evaluated using different narrative or numerical methods. The optimal approach is to review the contents in cooperation with other professionals, the parents and the child.

2 What is the purpose of assessment? Is it still necessary? When is it necessary?
3 How do I see assessment – is it a once-off activity followed by intervention, followed by re-assessment after a certain period of time?
4 What do I try to achieve with diagnostic results? What decisions are influenced by the assessment findings? When will the decisions be made? By whom, when and how? What is at stake after the decisions have been made?
5 How much influence will I have on the process and outcome of the assessment? Is it necessary for me to have a lot of influence or only a little?
6 What happens when I leave the assessment environment? What impact did the assessment process and I have on the people that I have worked with?
7 Why do I need to focus on the capacities, resources and assets of the people I am working with? How can I mobilise resources around the family?

## TEN FACTS ABOUT EDUCATIONAL PSYCHOLOGICAL ASSESSMENT

1 Assessments should benefit children.
2 Assessments should be tailored to suit the needs of each child, family or community.
3 Parents should be a valued source of assessment information, as well as equal partners in the assessment process, sharing results and design intervention.
4 Children's prior experience and achievements should be included and celebrated.
5 Assessment aims to establish a holistic view of the competencies, strengths, assets and areas of difficulties of a child, family and/or community.
6 Assessment practice is an equitable, just reflection of a child's functioning.
7 Assessment is embedded in partnerships on an equal basis.
8 Assessment activities should promote the opportunities of individuals, families and schools for enablement and capacity-building.
9 Assessment includes broader social systems in the assessment process, which creates coherence, stresses collaboration and values partnerships.
10 Assessment activities should match all of the stakeholders' perceptions of what is appropriate and important.

**Performance assessment:** Methods which give children opportunities to demonstrate and apply their acquired knowledge and skills (e.g. problem-solving, persistence, critical thinking, sharing and teamwork). Children's behaviour patterns and projects are used systematically to form judgements for assessment purposes.

## SUGGESTED READINGS

Cohen, LG and Spenciner, LJ (ed). (1994). *Assessment of young children.* New York: White Plains.

This is a well-structured student-friendly book with clear objectives, self-assessment activities and case studies to enhance and illustrate the theoretical points made. Although published in 1994, and situated in the United States context, this is a good place to start.

Ebersöhn, L and Eloff, I (2003). *Life skills and assets.* Pretoria: Van Schaik Publishers.

The authors utilise the asset-based approach in exploring the integration and relevance for lifeskills facilitation. Especially the first two chapters provide a more elaborate discussion of assessment, namely asset mapping. With Kretzmann and McNight, this book provides an overview of the asset-based approach in the context of lifeskills facilitation.

Goldstein, MH (2000). *Handbook of psychological assessment.* New York: Pergamon.

The second section of this book discusses procedures for assessment and intervention, cultural variables affecting assessment, principles to conduct the least bias assessment and formal testing, and provides guidelines on ways to interact and include families and dynamic assessment.

Kretzmann, J and McKnight, JL (1993). *Building communities from the inside out, a path toward finding and mobilising a community's assets.* Chicago: ACTA Publications.

The authors emphasise community building rather than fixate on deficits, and provide a series of practical examples of community work to guide the reader into the process of community building. With Ebersöhn and Eloff, this book provides an overview of the asset-based approach, in the context of community development in the United States.

Lidz, CS and Elliott, JG (2000). *Dynamic assessment: Prevailing models and applications.* New York: Guilford Press.

This book gives an overview of dynamic assessment with a wider range of learners from pre-school to post-secondary students within the educational context. Although developed and written for a North American audience, the procedures and discussion of learners with special educational needs is easily applicable to South Africa. Amongst the many worthwhile discussions, the chapter on 'collaborative, systems orientation to linking dynamic assessment and intervention' could prove useful.

Lockett, A (2000). 'A contextual orientation to assessment' in Wolfendale, S (ed.). *Special needs in the early years: Snapshots of practice.* London: Routledge Falmer.

Andrew Lockett supplies an excellent chapter on his development towards a more holistic and contextual approach, realising that assessments should be carried out in a child's familiar teaching and learning context. He shares his own development and growth, and provides a four-phase contextual assessment approach that any young and/or experienced professional would find extremely useful and easy to adapt to the South African context.

Losardo, A and Notari-Syverson, A (2001). *Alternative approaches to assessing young children.* Maryland: Paul H Brookes Publishing.

Again written for the United States' community, this is a worthwhile resource for familiarising yourself with different assessment models, namely naturalistic assessment, focused assessment, performance assessment, portfolio assessment, dynamic assessment and curriculum-based language assessment. These new and different forms of assessment are developing all the time in the field of education, and are influencing the practice of educational psychological assessments. Each chapter gives a theoretical overview, with advantages and limitations, and suggestions for practitioners in inclusive environments. The history of assessment is given, as well as a chapter on trans-disciplinary work.

Sayeed, Z and Guerin, E (2000). *Early years play.* London: David Fulton Publishers.

This is a practical resource on play-based assessment, and is useful with regard to the early intervention years and preschool teachers.

Shonkoff, JP and Meisels, SJ (eds.) (2000). *Handbook of early childhood intervention* 2nd edition. Cambridge: Cambridge University Press.

Chapters 11 to 14 of this book are thorough resources, especially for those interested in and already working with children of nought to six years. Fairly advanced reading, they provide the reader with rich theoretical information regarding the elements of assessment, parent-child interaction, and family and community assessment. It is a resource that has to be consulted at some point during your professional training.

Winton, PJ; McCollum, JA and Catlett, C (eds.) (1997). *Reforming personnel preparation in early intervention.* Maryland: Paul H Brookes Publishing.

Chapter 12, titled 'Preparing practitioners for getting the most out of child assessment', introduces basic definitions of assessment and incorporates the ecological approach in the assessment process. It focuses on family-centred approaches and gives advice on establishing key components in child assessment. The book achieves a good balance between theoretical issues and practical examples.

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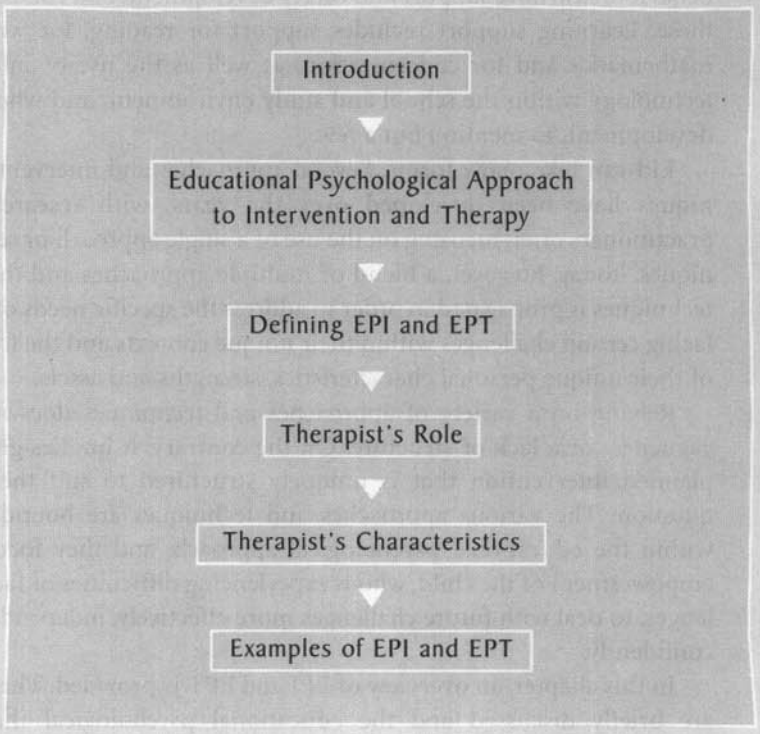
# Educational Psychological Intervention and Therapy

Ronél Ferreira



## INTRODUCTION

Educational psychological intervention (EPI) and therapy (EPT) range from individual intervention with one child to systemic intervention, focusing on intervention with all relevant systems that a child, or group of children, forms part of and is influenced by. It accompanies educational psychological assessment and can either follow the assessment process or (more often) be integrated with the assessment procedures. EPI commences the moment that the educational psychologist becomes involved with a child or a family, for example during a historicity interview with the parents or the assessment of a child. Intervention and therapy are guided by and focus on emotional well-being, acceptable behaviour, learning support and career development, or a combination of these. Learning support includes support for reading, for writing, for mathematics and for concentration, as well as the use of information technology within the school and study environment, and whole school development, to mention but a few.

EPI can take many forms. Several approaches and intervention techniques have been developed over the years, with researchers and practitioners often focusing on the use of a single approach or set of techniques. Today, however, a blend of multiple approaches and therapeutic techniques is propagated in order to address the specific needs of children facing certain challenges within their unique contexts and the framework of their unique personal characteristics, strengths and assets.

Relying on a variety of approaches and techniques does not imply vagueness or a lack of structure. On the contrary, it implies guided and planned intervention that is uniquely structured to suit the child in question. The various approaches and techniques are bound together within the educational psychological approach, and they focus on the empowerment of the child, who is experiencing difficulties or facing challenges, to deal with future challenges more effectively, independently and confidently.

In this chapter, an overview of EPI and EPT is provided. The concepts are briefly discussed and the educational psychological therapist is described. Seven therapeutic approaches and techniques are introduced as examples of intervention. These provide you with a few ways to intervene with children experiencing difficulties and facing challenges. It is to be emphasised that these approaches and techniques are merely some among many – the therapist who thinks creatively can easily devise many (equally successful) others.

## EDUCATIONAL PSYCHOLOGICAL APPROACH TO INTERVENTION AND THERAPY

The practice of EPI and EPT today rests on the foundation of the many years of work performed by various intervention researchers. Therapeutic approaches such as, among others, the **psychoanalytical approach**, **cognitive-behavioural approach** and the **humanistic-existential approach** had a significant influence on the identity of the educational psychological approach to intervention and therapy. Of particular significance to Educational Psychology is the **eco-systemic approach** (Donald, Lazarus & Lolwana, 2002). According to this approach, any individual experiencing difficulties should be viewed in terms of personal context as well as of the various role-players and systems that might have an influence on that person's experiences and behaviour. In Educational Psychology, children are regarded not as isolated units but rather as part of a family, a school, a peer group and other significant contexts – this helps educational psychologists and therapists to understand them as they function within their unique social contexts on a daily basis. Furthermore, insight into the child's context enables the therapist to plan intervention that includes all the role-players in the child's life.

**Educational psychological intervention and therapy:** Educational psychological **intervention** (EPI) refers to any educational psychological involvement with a child or family. It ranges from individual intervention with one child to systemic intervention, focusing on various systems. Educational psychological **therapy** (EPT) more narrowly focuses on individuals or individuals within a group context and aims to address certain challenges which have been identified.

A popular and effective way of addressing special educational needs, for example, is by means of the **whole school approach**, according to which intervention is focused on the wider system of the entire school. The whole school approach is a systemic approach to EPI; it addresses the system in which children function. According to this belief, special needs might be influenced by and ascribed to factors such as the school's ideology, procedures, curriculum, layout or everyday classroom arrangements. In the whole school approach, not only the parents, but also the teachers, peers, principal, governing body, policy-makers and other role-players are involved in the process of intervention.

Over time, emphasis has shifted from the so-called 'deficit approaches' to an asset-based approach within the framework of EPI and EPT. As opposed to deficit approaches, characterised by the address of children's problems in terms of the problems themselves and possible causes thereof, the **asset-based approach** emphasises existing assets, strengths and abilities throughout any intervention initiatives. According to this approach, EPI focuses on the mobilisation of existing assets in order to enable children to overcome the challenges and difficulties they are facing, whether in school, relationships, emotional lives, behaviour or decisions to be made, for example with regard to a future career. In this way, the solution to the problem is emphasised and the available resources to reach such a solution are highlighted, instead of the problem at hand being over-emphasised.

## DEFINING EPI AND EPT

**EPI** and **EPT** take place when a child (and the significant role-players in the child's life) is assisted by an educational psychologist to overcome difficulties and/or deal with challenges. The distinction between the two terms is provided in the list of key terms provided in this chapter. The therapeutic situation can take various forms, such as a child-therapist dyad, a group-therapist situation or a situation where one or more children are guided by a pair of co-therapists.

EPI and EPT aim at assisting children with problems or challenges of a personal and social nature. Such difficulties may apply at differing levels of the child's life, for example in the school situation, in relationships with family members or peers, in the child's emotional life or in considerations of a future career. In an attempt to help children overcome their problems, the therapist applies a variety of techniques and principles in a structured manner.

The underlying principle is to assist children to reorganise their own ideas and meanings in order to help themselves and deal with difficulties more easily in future, ultimately resulting in them reaching their true potential and acting accordingly. In order to achieve this ultimate goal, EPI and EPT often focus on the improvement of interpersonal skills, alleviation of anxiety, formation of positive self-concepts and a true sense of identity. In addition to the focus on individual changes, the intervention and therapy also attempts to change environmental conditions that may have a negative impact on the child's feelings, experiences and behaviours. In order to reach this goal, the parents and significant others are involved in the process of intervention and the necessary guidance is provided to them (Kennedy, 1998; Chazan, 2001).

## THERAPIST'S ROLE

In a therapeutic situation, the therapist and the child should share the responsibility and power inherent in the therapeutic relationship and situation. Initially, the therapist plays a leading role, and allows the child to start sharing the role and then take control – as early as possible in the therapeutic process. Based on the belief that a therapist does not have the 'answers' to the child's problems, the therapist-child relationship should be one of **enablement** and **empowerment**, with the child being an equal participant in the therapeutic process.

During career counselling, for example, the educational psychologist's intervention can focus on aspects such as helping the child take action in furthering her education and assisting her to plan a career. Children can be guided and motivated to take action for themselves and to explore

career opportunities, locate jobs, successfully complete applications and so forth. This entire process focuses on encouraging independent exploration and decision-making, allowing the child to take personal responsibility during the process of EPI.

This does not imply that the educational psychologist plays a passive role during intervention. As counsellor, the therapist must provide the necessary guidance at all times, making suitable recommendations that will give the child the opportunity to succeed within the suggested framework. To be able to fulfil such a guiding role, the therapist must have a thorough knowledge of not only the child in his unique context, but also of the various possibilities in order to effectively deal with difficulties and face challenges. Career counselling, for example, requires a thorough knowledge; on the part of the therapist, of training institutions and their basic requirements, as well as of suitable personality and interest profiles for the many careers – so equipped, the therapist can guide the child towards possible career choices that would suit his unique strengths, needs and abilities (Kennedy, 1998; Maree, 2002).

In addition to providing intervention and support on an individual level, where educational psychologists act as facilitators, they are responsible for the promotion of development of children on various levels, such as the **cognitive**, **emotional** and **social levels**. Furthermore, educational psychologists can be part of policy development, thus addressing children's needs on a broader level. They might also take on the roles of collaborators and/or consultants, focusing on the prevention of problems through professional educational support and empowerment (Engelbrecht, 2001).

## THERAPIST'S CHARACTERISTICS

The child therapist should possess the qualities of empathy, sincerity, congruence and personal regard. Such attributes form an integral part of a person who wishes to interact with children in a sincere and genuine manner within a therapeutic relationship; these qualities cannot merely be 'acted' (pretended).

Besides these, a few other personal and professional attributes can be identified as core qualities of a successful educational psychologist, including the ability to establish and maintain caring relationships, during which the message is conveyed that the therapist believes in the child's inner strength and that he truly cares for the well-being of the child; and the ability to accept all children of every background, culture, socio-economic stratum, belief system and experiences. Other admirable qualities are a sense of humour (humour can be highly effective during the process of therapy), being in touch with his own 'inner child' and

possessing the ability to play (as a child plays) (see play therapy below), being a self-actualising person who continuously strives for personal growth and development, and accepting other people (children) as unique individuals who are self-fulfilling and self-determining. The educational psychologist should be able to communicate with children, as well as their families and the relevant role-players in the child's school.

On an emotional level, an educational psychologist is an emotionally receptive person, by implication someone who is self-aware and non-defensive, and who welcomes feedback from others. Self-reflection and self-enhancement are important, as is the constant attempt to maintain emotional well-being on a personal level.

Moreover, educational psychological therapists must continually strive towards enhancing their professional attributes, basing any practical work on a sound theoretical framework and specialised knowledge – the areas of specialisation being child development, emotions and behaviour, learning and career development. The educational psychologist's knowledge base must continuously be updated and kept in line with new trends and ideas. Cultivating professionalism could take the form of attending conferences or refresher courses, holding discussions with experts and colleagues, and reading relevant journals (Kennedy, 1998; De Bruin & De Beer, 2001; Geldard & Geldard, 2002).

## EXAMPLES OF EPI AND EPT

Educational psychologists and therapists can implement the following examples of EPI and EPT when addressing emotional challenges, behavioural problems, learning support or career development.

### Play therapy

**Play therapy:** Any therapeutic involvement with a child that is based on play activity. The play activity must be appropriate for the child's developmental level and age and can take on various forms, such as games, fantasy, role-play, puppets and drama.

Do you remember being a child? For many of us it was a time of freedom, joy and fantasy. It was especially a time of *play.* Some of us put on our parents' clothes and play-acted the part of a favourite character, idol or personal dream. A piece of wood could easily become a car; a doll could become a real baby. Why do most children have imaginary friends that are 'real' in their minds? Perhaps because most children seem to prefer to interact with the world and other people in a playful way. Thus, play seems to be a good way of communicating with children.

Play can be regarded as a universal language of communication, characterised by its expressive nature. If only we, as parents or therapists, could continuously meet children on their level, we might gain a better understanding of their way of thinking and behaving. Also, we would be able to more easily understand their way of reasoning and solving

problems. In the safe, child-appropriate context of play, children will not only represent their personal experiences and everyday life-worlds, but also will probably be willing to express their feelings, as they are free from the consequences or reactions that might be encountered in everyday life. In the poetic words of Chazan (2002: 198): 'Oft-times the child knows but cannot tell in words a truth beyond all else. The play's the thing! That's all there is and ever will be.'

Educational psychologists often use play therapy when assisting children to deal with difficulties, owing to playfulness implying the possibility of change and transformation. As play activity reflects the very existence of the self, in being playful children possess a certain degree of autonomy, which is sustained by representations of their own inner and outer worlds. Whether play activity is **sensory**, **perceptual**, **symbolic** or a **combination** of these, symbols are used to represent thoughts, with the aim of facilitating change in the light of experiences, as well as the innovation of new coping strategies.

A firm belief in children's ability to solve problems and devise creative solutions is a key pillar in play therapy. The educational psychologist creates a space for the child to solve problems and deal with challenges in a playful way, thus accessing and collaborating with the child's imagination and existing knowledge. A second pillar of play therapy is an understanding of and focus on the level of the child. The therapist first gets to know the child, then selects a suitable play activity and connects with the child on her level, focusing on activities and interests typical of a child of that particular age and developmental level. Furthermore, the uniqueness of the child must constantly be kept in mind, and the therapy planned for the child must suit her individuality. If a child is interested in aeroplanes, therapists should allow her to play with toy aeroplanes. If she adores puppies, puppies can be used during play therapy. The possibilities are countless.

Play therapy implies a playful approach as well as activities such as (and involving) games, imagining, fantasy, exploration, mystery, problem-solving, symbolism, story-telling, role-play, puppets, toys, art, drama and metaphors. If a child has an imaginary friend, therapists can address difficulties by using this friend, who usually evokes positive feelings in the child. In all such activities, the key lies in allowing the child to 'speak' by means of play and to listen to what the child has to say. Rather than interpreting the child's actions and messages in a personal filtered way, the educational psychologist should sincerely *listen* to what the child is saying. Throughout the process of play therapy, the child should be allowed to give his own meaning to actions, interpreting in his own words and unique manner what he is doing and why. Playing along-

side the child, the educational psychologist has the valuable opportunity of being privy to such meanings, which indicate the child's experiences of himself and others, as well as his strategies of coping.

Whichever activity is decided upon, the educational psychologist needs to keep the basic principles of play therapy in mind at all times. These principles are as follows (Chazan, 2002):

- Play is always playful.
- Play occupies a space outside of everyday life and events.
- Play involves imaginings and trial action.
- Anything is possible and there are no consequences intruding during play.
- The outcome of play is open-ended.
- Play can be infinite or finite.
- Play is active and not static.
- Play emerges as part of the chain of actions and ideas across space and time.

### Narrative therapy

Once upon a time there was a community of elves living in a forest far away. The adult-elves and children-elves kept themselves busy with a variety of activities. A few of the adult-elves looked after the children-elves, assisting and helping them whenever they experienced difficulties with their schoolwork, at home, in their elf-hearts or when they had to decide what to do when they became adult-elves. A young elf – almost 20 years old – wanted to join this group of caring-elves and also assist junior elves whenever they needed help. She carefully observed the caring-elves and gathered that they used something called **narrative therapy**, which the children-elves simply loved. But she struggled to fathom the secret or the exact recipe that was followed. One day she decided to ask the king caring-elf what this method was all about, as it seemed so effective and helped a lot of children-elves to overcome their fears and face their challenges. The king caring-elf happily provided the answer:

**Narrative therapy:** The intervention approach during which stories and metaphors are used to represent problems that a child might be experiencing, externalising them and placing emphasis on the problems rather than on the child.

> Narrative therapy is a technique used by elves, but also by humans such as educational psychologists, to help children cope with daily difficulties by using narrative metaphors to conceptualise problems, people and change. In other words, we caring-elves use tales and stories. During the process of intervention, any problem that a child-elf might be experiencing is represented in the form of a story, which externalises it and places the problem rather than the child-elf "on the spot". This inevitably leads to children-elves feeling more positive, relaxed and willing to participate during the process of intervention, as they can clearly see that the so-called "problem" is not their fault, but something that has a negative impact on them and

sometimes even on other elves. Stories are used to explain why a child-elf behaved in a certain way, or neglected to do so, by providing context and background to the situation and behaviour in question.

Narrative therapy usually starts with an externalising conversation between the elf-family and the caring-elf (human therapist) about the problematic situation, followed by the caring-elf (therapist) gaining information about the child-elf (human child). In order to provide a safe environment, free of blame and guilt, the therapist might choose to start the session with a conversation that does not include or focus on the problem at all. This allows the child to perceive herself in a positive light; she gets to know herself as an individual with certain unique qualities, interests and abilities. In this way, children (elves and humans) learn to respect themselves and their own uniqueness, building on such positive thoughts throughout the therapeutic process. In addition, the child is instilled with a feeling of hope and often an enthusiasm for the "healing" process that is to follow.

Focusing and gathering information on the strengths and abilities of the child-in-therapy provide the caring-elf or educational psychologist with possible ways to address the problem at hand. Whatever the child brings into the therapeutic situation might be put to good use. Experiencing a degree of separation from the problem and its effects enables the child to notice other, preferred events, actions, habits, ideas or beliefs that might be pursued.

However, it is important to also gather information on the problem or challenge itself. Problematic behaviour and its consequences cannot be ignored; instead they should be taken seriously, which implies respect for the elf-family's (human family's) concerns and complaints (Freeman, Epston & Lobovits, 1997; Zimmerman & Dickerson, 2001).

The young elf was pleased. Now she knew what narrative therapy was all about. She could well understand the children-elves' positive reaction to this kind of help.

## Art therapy

When we are feeling sad or depressed, we tend to read a good book, write down our thoughts or illustrate our feelings on paper, listen to a favourite piece of music, watch a movie, prepare an appetising meal, build model planes or boats, or indulge in a hot bath, a bunch of flowers or a beautiful sunset. These are simply some of the ways we can make ourselves feel better. This is the value of **art**. Art can help us to relax, express, investigate and enhance life. Art can help us to *heal* ourselves. This is true no less for children than for adults.

**Art therapy:** Intervention or therapy conducted by means of one or more art activities. During this process, clients (children) are allowed freedom of creativity and the opportunity to use symbolism in order to address challenges they might be facing.

Incorporating a child's creativity and expression during therapy is like painting; there is richness and variety of texture, a blend of colours, the

fact that a paintbrush or a finger can make something out of nothing, the artist provides a personal touch. In art therapy, various art media, images and creative processes are implemented, as well as the child's responses as reflections of personal development, interests, abilities and personality. By definition, art therapy engenders non-verbal expression and communication. It gives the child the opportunity to resolve emotional conflicts and promotes self-awareness and personal growth.

In art therapy, there is a safe environment where the child can use symbolism to identify, express and repeat his innermost feelings, experiences and beliefs, which are sometimes too painful to be expressed verbally. This allows him to gain distance from such painful thoughts and feelings. Through the palette of art, the child can make associations, allowing the non-verbal to become 'said' in a symbolic way and the unconscious to become conscious. The art therapist guides the child in this process of making connections and clarifications through interpreting symbolic images. The therapy can be used with individuals, families or in groups; with children of all ages; within all cultural settings. It addresses the wide spectrum of difficulties and challenges faced by children.

Art therapy incorporates a variety of methods and techniques. The therapist must possess a sound knowledge and experience of a range of art media in order to be able to guide therapy sessions towards the achievement of appropriate goals. Although finger-paint, oil paints and clay, for example, can be used with great success when helping a child who is a perfectionist or lacks self-confidence, these media are not regarded as highly suitable when intervention aims at providing structure so that internal control is reached – these media are tactile and imply a need to smear. As a perfectionistic child tends to produce 'perfect' end products, he should usually be guided to try to be more relaxed and produce 'not so perfect' work, because perfectionism often creates unnecessary tension and anxiety in a child. By contrast, a structure-needing child should usually be guided towards more structured ('perfect') end products, implying the need for media that would allow for tasks to be completed neatly. In such a case, felt-tip markers or crayons are regarded as more appropriate (Levick, 2001).

**Metaphor therapy:** Allows children to represent themselves in terms of metaphors, as well as to reveal their personal meanings and perceptions of themselves, of others and of their environments in terms of a 'safe language' and myths.

## Metaphor therapy

Try to describe yourself in terms of a metaphor. Are you a flower, an instrument, a building, an object, an animal; perhaps a journey? There are countless possibilities for us to describe ourselves and our experiences in symbolic terms, in our own words and meanings – personalising what we feel and experience.

This is an appropriate way to enter the world of the child: allowing the child to communicate using a linguistic tool of her own choosing. She might say, 'I felt like an aeroplane wanting to fly away' or, 'My mommy treats me like a princess'. By means of such metaphoric language, a child can be guided to explore, elaborate and transform the imagery dimension of the metaphor to facilitate new patterns, perspectives, meanings and understandings. Metaphor therapy is extremely useful during therapy across cultures, as psychologically-based interpretations are avoided by allowing children to provide their personal searches and meanings regarding themselves, others and life in general.

We can distinguish two categories of intervention: **client-generated** metaphors and **therapist-generated** metaphors (for cases where the child needs guidance on possible metaphors to use). Whichever category is used, metaphor therapy gives the child the opportunity to use and apply his imagination in creative problem-solving. Word-pictures are employed. Put differently, the words represent symbols for the things that the child has in mind. Not only can the child represent himself through metaphor in the therapy, he is also allowed to describe others, their situations and their relationships in metaphorical terms. Thus, the child is encouraged to reveal his personal meanings in language and myth. In deciding on a suitable metaphor, similarities are identified and then transferred from a person or situation to a symbol. The role of the educational psychologist as therapist is to keep the child focused on the imagery, as opposed to reality. The child should create the content at all times, while the therapist guides the process. However, some children require more guidance from the therapist, even with regard to identifying suitable metaphors.

Metaphor therapy is based on the idea that individuals structure reality metaphorically. Working with child-generated metaphors requires the therapist to be able to identify metaphoric language when it occurs, and then to explore the metaphor at hand. Prompting the child to elaborate on the metaphor will likely result in an exploration of the feelings and experiences associated with the imagery. Such prompts should be non-directive in nature, allowing the child to communicate in symbolic language. The therapist must interpret metaphors in terms of the child's meanings and *not* prescribe personal meanings to those metaphors. The child's meanings should guide the metaphorical communication between her and the educational psychologist at all times (Kopp, 2001).

**Encouragement therapy:** Is a positive approach to intervention, based on the belief that all children have the potential to change owing to existing strengths and abilities. It aims to motivate children, ultimately resulting in them taking responsibility for their own lives, being confident and displaying courage.

## Encouragement therapy

Optimism versus pessimism; excitement versus disappointment; enthusiasm versus apathy; encouragement versus discouragement. We tend to

prefer the former in each of these cases. Almost everyone likes excitement, joy, encouragement, self-confidence and optimism. However, people consulting a therapist tend to feel exactly the opposite of these positive emotions, which become the goals of intervention initiatives.

Encouragement therapy attempts to have children reach and maintain responsibility, confidence and courage. It is a positive, practical approach which strives towards children being motivated; this is based on the belief that motivation is one of the main reasons for people allowing change to occur in their lives. Encouragement therapy upholds the notion that children possess the capability of change; they possess assets, strengths, resources and potential, although it might be necessary to reorganise these during therapy. Discouraged children are not regarded as being incapable of change, but rather as being unmotivated to change, as change inevitably implies uncertainty and, often, anxiety. During therapy, the educational psychologist therefore continuously strives to encourage a willingness and determination to change within the child.

Reorganising assets, strengths and abilities implies the development of perceptual alternatives – by implication, new perceptions of the self, others and reality. As a result, children undergoing intervention are encouraged to recognise the connection between what they think, what they tell themselves, how they feel and how they behave. Such recognition usually results in a sense of internal harmony, autonomy, personal control, self-empowerment and a motivation to take courageous action or to change.

The educational psychologist as therapist should encourage the child. As a real person, whose personal beliefs also affect her emotions and behaviour, the educational psychologist provides an example of hope for the child. The message that the mere fact of being alive implies positivity, and the possibility of courageous living, should be conveyed to the child throughout the intervention. The educational psychologist constantly encourages the child to be responsible ('It's up to me') and confident ('I can do it'), as such combined feelings usually result in the child being motivated to change (Losoncy, 2001).

In encouragement therapy, both the educational psychologist as therapist and the child should become aware of and understand the child's emotions. Such awareness enables the educational psychologist to identify any underlying discouraging beliefs, and elicits an awareness on the child's part concerning the effect of such beliefs on her emotions and behaviour. After developing responsibility and confidence, the child is guided to explore different possibilities, develop new plans, identify and formulate goals, take action and eventually evaluate such actions (Losoncy, 2001).

## Family therapy

**Family therapy:** Any kind of intervention with families. It can involve therapy with individual family members or with all family members, in order to empower them to manage family relationships more effectively. It may also involve therapy with other individuals forming part of the wider network of the family.

'Family therapy' is the broad term for a variety of methods of working with families who are experiencing a range of difficulties or challenges. The specific nature of this therapy varies from therapist to therapist. It might involve therapy with all family members during all therapy sessions, or with individual family members in order to empower them to manage their relationships with other family members more effectively. It may even involve other individuals who form part of the wider family network.

Despite this highly flexible nature, the therapy always aims to facilitate the resolution of difficulties within a family and promote healthy family development. This is established by focusing on the relationships between the family member experiencing the problem and the significant members of his family or social network. The approach is based on the universal belief that human problems are, in essence, interpersonal and that their resolution requires intervention that addresses relationships between people.

As with any other form of educational psychological intervention, family therapy is conducted in accordance with certain phases. The therapist:

1 Conducts the intake interview and plans the therapy.
2 Establishes rapport with the child, gathers information and conducts an assessment.
3 Sets goals, establishes a therapeutic contract and manages resistance, if it is present.
4 Disengages, or re-contracts for further intervention.

In contrast to other therapeutic approaches, family therapy also involves constant decisions to be made on who to involve during therapy; this means completing a network analysis of the child. The minimum sufficient network is regarded to include the child, the person legally responsible for the child and the person who has the primary supportive relationship with the child. The latter two roles may be fulfilled by the same person.

An alternative to basic family therapy is multiple family therapy, during which more than one family is involved in therapy that is provided in a group. Multiple family therapy can take various forms, such as a single family receiving therapy while being observed by other families experiencing similar difficulties or facing similar challenges. Another possibility involves therapy with a few families simultaneously, within a group, which generates group interaction and addresses each family's concerns during each therapy session (Carr, 2001; Raasoch, 2001).

**Group therapy:** Therapeutic intervention with individuals within the context of a group. Although the group is regarded as a system, all group members function as individuals within the group.

## Group therapy

Living implies interaction. We live in groups, work in groups, play in groups – not necessarily at all times, but certainly for a great part of our lives. In the same way, children live in groups, play in groups, grow up in groups, experience difficulties and face challenges in groups. Group therapy is based on the belief that a child-in-therapy is not a self-contained unit but an individual in relation with others, where the family and peer group often form the central groups in the child's life.

The size of a therapeutic group depends on factors such as the age of the children, the type of group, the experience and expertise of the therapist, the number of therapists involved and the type of problem or challenge experienced by the group members. The group should be large enough to allow for sufficient interaction between group members, but small enough to elicit the necessary sense of belonging and inclusion in each group member. Groups of four to eight children are generally regarded as of optimal size for group therapy.

Being part of a therapeutic group does not imply becoming like the other group members. Each individual is treated as such, but individuality is regarded as being expressed within the context of the group and in interaction with others. The group is a system, allowing group members to remain individuals, while acting in ways that will be possible only while they are part of that particular group.

Group therapy can be conducted with groups of children facing similar challenges, with a family, a couple or even an entire community. The therapeutic group is always a system with the aim of acting as an agent in change. The group therapist faces the challenge of facilitating group interaction in order to address challenges that the group members currently face and prevent problems occurring in the future. In the process, the therapist should also facilitate the establishment of cohesion within the group.

Group therapy has the advantage of a group being able to offer more than a therapeutic dyad. The group in itself is therapeutic, at times even more than a therapeutic dyad has the ability to be. It provides extended opportunities for group members to deal with challenges, for example an extremely shy child can develop self-confidence in the safety of the therapeutic group before moving out into wider society. Observing others in the group often provides a child with an example of how to face certain difficulties, which can be experienced also by other group members. Furthermore, the therapeutic group provides members with a sense of belonging and sometimes even takes on the caring and accepting role of a nurturing figure, providing a sense of security that an individual therapist might not be able to provide.

It takes time for a group to become cohesive, that is, to be a group in which the group members feel that they belong and value the group. Whenever this stage is reached, group members internalise such cohesiveness, 'taking the group home' with them and allowing it to be present at all times. In this way, an 'inner group' is always present, providing the necessary strength and guidance without a group member or therapist being physically present (Chazan, 2001; Schoeman & Van der Walt, 2001).

## CONCLUSION

Educational Psychology implies intervention and therapy, whether it is to assist a child dealing with challenges, or to guide a child to the awareness and mobilisation of existing strengths and abilities that are not employed optimally. EPI and EPT can take on many forms and rely on a variety of techniques. The educational psychologist merely has to think creatively to devise a variety of ideas for each child dealt with.

In this chapter, a few possibilities of EPI and EPT were discussed, as mere examples. Based on this introduction, you will be able to identify the approaches and techniques with which you feel comfortable and might want to implement in future. In addition, these examples may motivate you to study other approaches and techniques, broadening your repertoire of educational psychological intervention and therapy approaches and techniques

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 What is the difference between educational psychological intervention and educational psychological therapy?
2 What do you understand by the educational psychological approach to intervention and therapy?
3 Critically discuss the role of the educational psychologist as interventionist or therapist.
4 What are the basic principles of play therapy?
5 How could narrative therapy provide reading support to a 10-year-old girl? Elaborate.
6 What are the advantages of metaphor therapy with regard to career development?
7 Why would it be best to use family therapy in the intervention of a nine-year-old boy displaying attention difficulties?
8 Discuss the use of group therapy for a group of adolescents experiencing problems in dealing with peer pressure.

## VOICES

Sometimes I also give the children a motivational poem to encourage them. Then they can apply the poems themselves and learn to reflect on their emotions.

– Grade 1 teacher, on metaphor therapy

I find that art therapy helps children to express their emotions without verbally telling you how they're feeling ... In this way, they can feel safe.

– Practising educational psychologist, on art therapy

Narrative therapy allows children to listen to stories that they can relate to and in the end they actually solve their own problems.

– Educational Psychologist intern, on narrative therapy

Art provides children with the opportunity to be creative and really express themselves in a way that they want to do it ... that they like ... it's like giving a piece of themselves ...

– Grade 9 teacher, on art therapy

I find it amazing how well children can really communicate if you're just willing to listen and know what to look for while they're playing ...

– Masters student in Educational Psychology, on play therapy

This really works, especially at the rehab ... working with children using drugs. They actually voice that they didn't think that there were other children feeling like they felt ... experiencing what they did and that they were glad to meet others who had similar experiences .... This is great! I've read about this in books and now I can actually see how it works ...

– BPsych student during her learnership at a drug rehabilitation centre, on group therapy

By reading a motivational book I was able to apply what I read to my own life. ... Through reading the book I realised how important my family is.

– Grade 12 learner during career guidance, on narrative therapy

Now I know why I'm sad ... it's 'cause granny died and I want her with me ...

– Five-year-old boy, during a play therapy session

It is such a great relief for me to know my child isn't sick and that this is something we can actually work on together.

– Grandmother of a seven-year-old girl, during a feedback session conducted in a narrative manner

How can you only play with her? Shouldn't you do some real therapy? *(Later)* I can now see that this works with my child ... it's her way to communicate with the world.

– Mother of a seven-year-old girl diagnosed with selective mutism, on play therapy

The worm is looking as I thought it would ... Now the worm is on the paper and not in my heart anymore ...

– Eight-year-old girl manifesting with enuresis, on narrative therapy

## APPLICATION STRATEGIES

The strategies are as follows:

- Be guided by the child's needs and interests during educational psychological intervention and therapy.
- Be creative in your approach and choice of intervention technique.
- Explore new trends and ideas in intervention.
- Do not fixate on one or two 'safe choices' – be flexible and open-minded.
- Consider the child's developmental level and age in your choice of intervention or therapeutic strategy.
- Allow the child to take responsibility for the challenge or difficulty at hand.
- Involve the child's parents and other role-players during the intervention process.
- Ask the child and other role-players for feedback on the process, with the aim of improving in future.
- Engage in self-reflection on a regular basis, in order to improve as an educational psychological interventionist and therapist.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 With which approach(es) to EPI and EPT am I comfortable?
2 How will my approach to intervention and therapy differ when working with children of various age groups?
3 To what extent do I meet the criteria of an educational psychologist?
4 Will I be comfortable in a play therapy situation, becoming involved in playful activities?
5 In which contexts can I apply narrative therapy?
6 Which themes can be explored with children during group therapy?
7 Will I be comfortable with involving other family members during intervention and therapy?

## TEN FACTS ABOUT EDUCATIONAL PSYCHOLOGICAL INTERVENTION AND THERAPY

1 EPI and EPT imply a variety of underlying approaches and techniques.
2 EPI and EPT range from intervention on an individual level to systemic intervention.
3 EPI and EPT focus on emotional and behavioural difficulties, learning support (for example reading, concentration and mathematical support), career development or a combination of these.
4 During EPI and EPT, emphasis is placed on the empowerment of the child and/or family, mobilising existing assets and strengths in order to overcome difficulties.
5 EPI and EPT are guided by the child's unique needs, preferences and developmental level.
6 During EPI and EPT the educational psychologist acts as facilitator, providing the necessary structure but allowing the child to take responsibility for the problem or challenge at hand.
7 The educational psychologist is characterised by empathy, sincerity, congruence and personal regard.
8 Play therapy is often implied as an intervention strategy owing to the suitability of play activities when working with children.
9 EPI and EPT can be conducted on an individual level or with individuals within the context of a group.
10 EPI and EPT often imply family therapy, involving all family members and other significant role-players who are not part of the actual family.

## SUGGESTED READINGS

Chazan, SE (2002). *Profiles of play. Assessing and observing structure and process in play therapy.* London: Jessica Kingsley Publishers.

This is a good resource with regard to play therapy. The authors go into a lot of detail on the process and structures of play therapy, but they also touch on many basic principles and provide a broad framework from which to approach play therapy.

Corsini, RJ (ed.) (2001). *Handbook of innovative therapy.* New York: John Wiley.

This excellent resource describes 69 different intervention techniques. Apart from discussing the history, basic principles and method of the various therapies, the authors use case studies as examples to illustrate how theory can be put into practice.

Geldard, K and Geldard, D (2002). *Counseling children. A practical introduction.* London: Sage.

This is an accessible text on the basic principles and skills involved in child intervention. Although the authors describe theoretical

principles in sufficient detail, the greater part of the book focuses on practical guidelines and examples of how to conduct intervention/therapy. Worksheets are included as examples to use during intervention.

Thompson, CL and Rudolph, LB (2000). *Counseling children.* Pacific Grove: Brooks/Cole.

This book provides a broad, thorough background on many of the underlying basic approaches to educational psychological intervention and therapy. The discussion also gives insight into the application value of these approaches. The counselling process of children is covered, as well as possible ways to deal with specific challenges and difficulties experienced by children.

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Kennedy, WJ (1998). *Counselling in the new millennium: A post-modern perspective.* Alberta: Detselig Enterprises.

Kopp, R (2001). 'Metaphor therapy' in Corsini, RJ (ed.). *Handbook of innovative therapy.* New York: John Wiley.

Levick, M (2001). 'Art therapy' in Corsini, RJ (ed.). *Handbook of innovative therapy.* New York: John Wiley.

Losoncy, L (2001). 'Encouragement therapy' in Corsini, RJ (ed.). *Handbook of innovative therapy.* New York: John Wiley.

Maree, K (2002). 'Theoretical approaches: An overview' in Maree, K and Ebersöhn, L (eds.). *Lifeskills and career counselling.* Sandown: Heinemann Publishers.

Raasoch, JW (2001). 'Multiple family therapy' in Corsini, RJ (ed.). *Handbook of innovative therapy.* New York: John Wiley.

Schoeman, W and Van der Walt, M (2001). 'Types of counselling' in Van Niekerk, E and Prins, A (eds.). *Counselling in southern Africa: A youth perspective.* Sandown: Heinemann Publishers.

Zimmerman, JL and Dickerson, V (2001). 'Narrative therapy' in Corsini, RJ (ed.). *Handbook of innovative therapy.* New York: John Wiley.

PART FIVE

# Theorising Educational Psychology

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# Research in Educational Psychology in South Africa

Quinton Adams, Lynette Collair,
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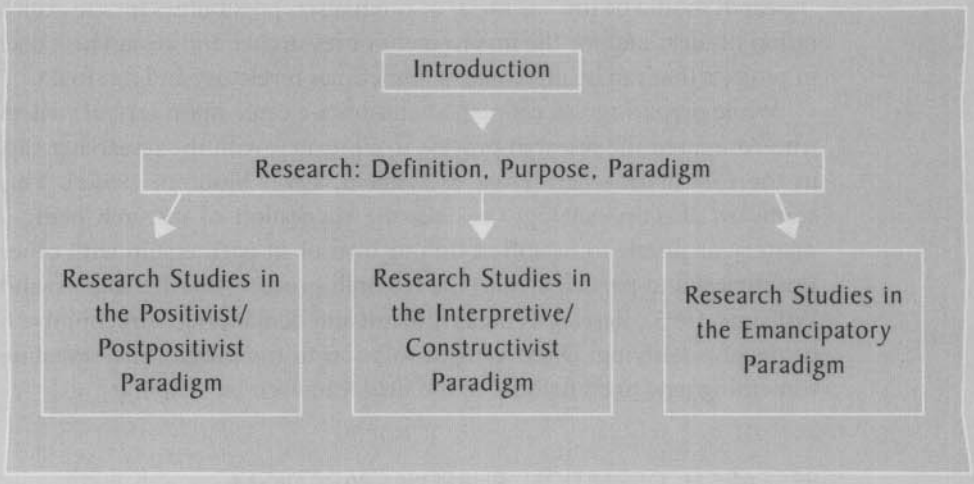

## INTRODUCTION

The fields of Education and Educational Psychology are in need of reflective practitioners. Research can be viewed as an intrinsic part of the role of a reflective practitioner. In this chapter the research process is defined and described in terms of three possible paradigms. A range of successfully completed research studies serve as examples of work undertaken in the different research paradigms.

We tend to associate the process of research with a lot of hard work. But, as Schratz and Walker (1995: i) point out, 'Umberto Eco writes that "research should be fun" ... social research offers possibilities for the exploration of ideas and for the involvement of researcher and researched alike in projects that can be informative, sometimes revelatory and fun to do.'

While preparing this chapter, as authors we came upon several writers who compared the research process to a journey, with the researcher cast in the role of traveller (Frost & Stablein, 1992; Mouton, 1996a). This seems an effective analogy, as does the suggestion of research being a mystery or puzzle to be solved on our own or in partnership with other researchers and participants in the research process (Booth, Colomb and Williams, 1995). Research entails difficult and demanding work, but it can be deeply satisfying. Discovering a solution to the puzzle, and revealing something new to contribute to the field, can even be thrilling.

## RESEARCH: DEFINITION, PURPOSE, PARADIGM

### Definition of research

**Research:** A 'process through which we attempt to achieve systematically and with the support of data the answer to a question, the resolution of a problem, or a greater understanding of a phenomenon' (Leedy, 1997: 157). Accountable and relevant research can empower, transform and change the researcher and the researched, and their respective circumstances. Research is a means by which we can capture and analyse best practices for educational psychologists and others in the field of Education.

Various definitions of research have been proposed over the years. Leedy (1997: 157) offers the best one in general: research is the 'process through which we attempt to achieve systematically and with the support of data the answer to a question, the resolution of a problem, or a greater understanding of a phenomenon'. However, this definition omits the fact that accountable and relevant research can also empower, transform, and change individuals (both the researcher and the participants) and their circumstances (Mouton, 1996b; Mertens, 1998).

### Purpose of research

It is rare for a single research study to immediately effect a breakthrough. Usually, over a period of time, evidence gathered on a certain subject allows theorists to refine and extend their theories as well as develop new and more relevant ones. The practice of both teaching and psychology uses these theories as a conceptual foundation (Slavin, 1997; Eggen & Kauchak, 1999). We think of the important work that the Swiss psychol-

ogist Jean Piaget has done in the field of Developmental Psychology. He began research by carefully studying his own children and, as a result of his observations, developed his groundbreaking theory that describes the cognitive development of children from infancy through adolescence. Today, this work continues to influence the work of both teachers and educational psychologists (Slavin, 1997).

It is through high quality research that we can start to clarify existing confusion, and gain a better understanding of modern complexities and dilemmas. In South Africa, apartheid policies have left a legacy of inequity. Although the introduction of a democratic government in 1994 heralded dramatic changes in education policy, the implementation of these changes has not yet been possible. In some respects our society is struggling to meet the most fundamental needs of its citizens. Of all the areas involved, education reform presents the most complex challenges in the transformation process in South Africa at present (De Jong, 2000). Here, research becomes vital. For example, it can help educational psychologists to formulate a better idea of how to educate or counsel large groups of learners with a history of poor achievement in school, and who suffer owing to certain social and psychological disadvantages. This is what Farrell (2002) refers to when he says that research is a means by which we can capture and analyse best practices for educational psychologists and others in the field of Education.

## Paradigm of research

Patti Lather (1992: 88) describes the early 1990s as 'both a dizzying and exciting time in which to do social inquiry. It was a time of openness and questioning of established paradigms in intellectual thought'. This is a point supported by Anzul, Evans, King and Tellier-Robinson (2001: 235), who emphasise the 'far-reaching changes throughout the educational research community. Among these changes has been the increasing acceptance of new research paradigms, methods and genres for the presentation of data'.

But what is a research paradigm? It is the broad theoretical orientation to which a particular research study belongs. Obviously there needs to be a match between the theoretical tradition you endorse, and the manner in which you intend to pursue the actual research (Smith, Hattam and Shacklock, 1997). Research paradigms help researchers to be clear about their function, and about what falls inside and outside of the limits of legitimate research. For the sake of convenience, research in the field of Educational Psychology (and all other fields for that matter) is categorised into a few paradigms. It is important to recognise that this downplays the complex differences within each of these paradigms.

**Research paradigm:** A broad theoretical orientation to which a particular research study belongs. There should be a match between the theoretical tradition you endorse and the manner in which you intend to pursue the actual research. According to Mertens (1998), the major research paradigms are the positivist/postpositivist paradigm, the interpretive/constructivist paradigm and the emancipatory paradigm.

According to Guba and Lincoln (1998), the basic beliefs that define research paradigms can be summarised by the responses given to three fundamental questions:

1 The **ontological** question: What is the nature of reality and what is there to be known about it?
2 The **epistemological** question: What is the nature of knowledge and the relationship between the knower (researcher) and the would-be known (participant)?
3 The **methodological** question: How can the knower (researcher) go about obtaining the desired knowledge and understanding?

Theorists in the arena of social research give different answers to these questions. Neuman (2000) identifies positivism, interpretive social research and critical social research as different approaches, while Terre Blanche and Durrheim (1999) also favour positivist and interpretivist social research, but rather use social constructionism as a third research paradigm. They (1999) claim that the most obvious difference between social constructionist and interpretive research is ontological, as both research paradigms assume that we can make sense of the social world only by accounting for meaning and by drawing on qualitative methods. Social constructionist research is about interpreting the social world as a kind of language, as a system of meanings and practices that construct reality. The way in which people interact with the world is structured by the ruling discourses of the time and context (Terre Blanche & Durrheim, 1999).

Mertens (1998) offers a useful way of categorising the three major paradigms in social research in response to Guba and Lincoln's (1998) questions. She names the first the positivist/postpositivist paradigm, the second the interpretive/constructivist paradigm and the third the emancipatory paradigm. She contends that researchers working in the **positivist/postpositivist paradigm** assume that a reality exists that is knowable within probability (ontology). By taking an objective stance and observing in a dispassionate and objective way (epistemology), the researcher can glean knowledge. Quantitative research methods are therefore best suited to the task (methodology). Researchers working in the **interpretive/constructivist paradigm**, however, acknowledge that people's subjective experiences (their realities) are valid, multiple and socially constructed, and should be taken seriously (ontology). Researchers believe that they can understand the experiences of others in interaction with them and by listening to them (epistemology). Qualitative research techniques are best suited to their task (methodology).

Researchers working in the **emancipatory paradigm** assume that there are multiple realities shaped by social, political, cultural, economic,

ethnic, gender and disability values (ontology), and that there is an interactive link between the researcher and the participants. Knowledge is socially constructed and historically situated (epistemology). More emphasis is therefore placed on participatory action research. Contextual and historical factors are described as they relate to oppression (methodology) (Mertens, 1998; Terre Blanche & Durrheim, 1999; Mouton, 2001). According to Mouton (1996b), the emancipatory theorists have constructed a view of the social sciences that incorporates a number of related ideas, the common factor being transformation or change.

During the past decade educational research has moved away from the positivist tradition. An increasing number of researchers in Educational Psychology are now drawing upon interpretive, constructivist and critical views of knowledge (Lather, 1992). As Terre Blanche and Durrheim (1999) point out, paradigms in Social Science exist side by side and thus it is possible for researchers to draw on more than one paradigm, depending on the research study they are conducting. Patton (1990: 38–9) makes a case for what he calls the 'paradigm of choices'. This paradigm recognises that the researcher has to make choices of method that are appropriate to the purpose of the research study.

The brief descriptions of research studies presented in the rest of this chapter aim to provide a glimpse into the role that research can play in informing the practices of Education and Educational Psychology.

## RESEARCH STUDIES IN THE POSITIVIST/POSTPOSITIVIST PARADIGM

The oldest and most dominant paradigm in Social Science is the positivist paradigm, which is firmly entrenched in **quantitative methodology**. The knowledge gleaned is based on what is considered to be objective observation and measurement that is systematically applied. The studies below are examples of the various methods employed within the positivist paradigm.

**Quantitative methodology:** Knowledge gleaned is based on what is considered to be objective observation and measurement that is systematically applied.

In a comparative study, Forlin and Engelbrecht (1998) investigated the attitudes of pre-service educators towards persons with disabilities at six universities in Australia and South Africa. As educators in mainstream classrooms are to become increasingly involved with the education of learners with disabilities, both in Australian and South African schools, their attitudes towards such learners are critical. Three of the six universities were in Queensland, Australia, and three universities were in the Western Cape area in South Africa. These universities recognised the need to ensure that appropriate pre-service education courses were developed that would not only provide the necessary skills and knowledge for

pre-service educators, but also take account of their existing beliefs. Each of the universities felt the need to ensure that their courses made it possible for educators to be able to teach a broad range of learners, including those with disabilities, in their classes.

A **standardised questionnaire** was employed as method of data collection. Pre-service teachers were asked to complete an Interactions with Disabled Persons (IDP) Scale (Gething, 1991) and 12 accompanying items about a range of demographic characteristics. The scale is a 20-item, 6-point Likert scale designed to measure attitudes towards people with disabilities by assessing levels of discomfort in social interactions as a central factor underlying negative attitudes (Gething, 1992).

As in previous studies employing the IDP as an instrument, the research findings of this study indicated that contact with people with disabilities had influenced reported levels of discomfort. Relatively low levels of discomfort were reported by pre-service educators with daily contact with people with disabilities, while considerably higher levels of discomfort were reported by pre-service educators with contact less than once every three months. Although levels of discomfort decreased with more frequent contact with people with disabilities across the total sample, there were significant differences overall between educators in the two countries. In every instance the level of discomfort demonstrated by the Western Cape pre-service educators was higher than for the pre-service educators in Queensland. Comparing level of discomfort per university, it was apparent that the pre-service educators from the two traditionally advantaged universities in the Western Cape (Stellenbosch and Cape Town) expressed considerably more discomfort than the pre-service educators from the traditionally disadvantaged university (Western Cape). For these pre-service educators, contact with people with disabilities had an important impact on their degree of comfort during the interactions.

In the light of the findings, the researchers emphasised that a curriculum for pre-service educators who would be teaching in inclusive classrooms would have to give particular attention to shaping **positive attitudes** towards people with disabilities.

Another research study that has particular relevance for the work of the educational psychologist was conducted by Perold (2001) on anxiety disorders, which are among the most prevalent psychiatric disorders of children. Perold (2001) explored different etiological theories of anxiety, the classification of anxiety disorders and their prevalence, the living conditions of the child in South Africa and the assessment of anxiety in

children. The study also examined anxiety disorder symptoms (as defined in the *Diagnostic and Statistical Manual of Mental Disorders* 4th edition (*DSM IV*)) in 7- to 13-year-old learners in the Western Cape.

The research study was quantitative, using a sample survey approach. Two **self-report questionnaires** were used: the Spence Children's Anxiety Scale (SCAS) and the Screen for Child Anxiety-Related Emotional Disorders (SCARED). Statistical methods such as measures of reliability and validity, correlations and factor analysis were used to examine the data.

A high percentage of the subjects reported serious anxiety symptoms, namely 22% on the SCAS and 25.6% on the SCARED. The most common anxiety symptoms of the learners in the Western Cape were generalised anxiety disorder, separation anxiety disorder, social phobia and the obsessive-compulsive disorder. A study of the most common responses revealed a high level of symptoms relating to compulsive behaviours, and physical separation from the parents was frequent.

The data indicated that the two self-report questionnaires, the SCAS and the SCARED, could be used as screening instruments in preventative work. This means that anxiety symptoms could be diagnosed and treated at an early age, thus preventing their continuation into adulthood.

In a third study, Du Preez (2003) explored the neurobehavioural deficits and strengths brought about by child abuse in an attempt to develop an understanding of the impact of child abuse on the plasticity of intelligence. For research purposes 'child abuse' was defined as sexual abuse, physical abuse, neglect and multiple victimisation. According to the researcher, child abuse represents a traumatic environmental disaster and could thus be viewed as a social and systemic phenomenon underpinning the plasticity of intelligence.

The research study employed a quantitative methodology. The Revised Senior South African Individual Scale (SSAIS-R) was used to determine the intellectual functioning of the subjects. The sample population comprised 75 male and female subjects between the ages of 8 years 0 months and 16 years 11 months, who were exposed to child abuse at levels that warranted admission to a place of safety. A one-way analysis of variance technique was implemented and p-values calculated to allow inter- and intra group comparisons with regard to impact of variance on intellectual functioning.

The results suggested a global reduction in intellectual functioning among all subjects, specifically in the area of memory and verbal

processing abilities. Subtle neurobehavioural deficits and strengths presented. The substantially elevated, non-verbal IQ demonstrated intact visual non-verbal functioning among all subjects. This is in keeping with the 'frozen watchfulness' that is characteristic of victims of abuse.

The results thus suggested differential intellectual impairment associated with child abuse, with a sparing of visual non-verbal functions. According to the researcher, the depressed verbal and elevated non-verbal IQ provided support for the plasticity of intelligence, with the interpretation being that brain functions are reorganised because of stress.

> The researcher emphasised that the scholastic functioning of abused children might be significantly impaired, often resulting in special school placement, and called on teachers and practitioners to rethink assessment practices that might lead to discrimination by proxy, implicating improper school placement and poor preparation for employment. This might lead to the continuance of the cycle of child abuse.

Adams (2002) conducted the final quantitative study in this discussion. The aim of the study was to investigate the relationship between identity formation and adolescents' perceptions of six dimensions of family functioning, namely family structure, affect, communication, behaviour control, value transmission and the role of external systems.

The Extended Objective Measure of Ego Identity Status (EOMEIS) and the Family Functioning in Adolescence Questionnaire (FFAQ) were the two instruments used. The EOMEIS is a self-administered questionnaire. It is a 64-item instrument that extends Marcia's identity status paradigm and assesses psychosocial maturity with regard to the ideological domain and the interpersonal domain of identity development. (Marcia (1980) expanded on Erikson's theory and stimulated much research on identity formation by developing an interview schedule to determine where an adolescent is in the process of identity formation.) The FFAQ explores the psychosocial health of the family during the child's adolescent stage.

The results indicated that a positive relationship between perceptions of family functioning and identity formation was particularly evident among the English-speaking subjects. Among the Afrikaans-speaking subjects, identity foreclosure (no crisis has been experienced, but the adolescent has come to commitments usually forced on her by the parents) shows a significant positive correlation with communication,

behaviour control, the transmission of values, and the role of external systems in family life. Compared to other dimensions of family functioning (family structure, affect, communication, behaviour control, value transmission and the role of external systems), value transmission seems to be the dimension most widely associated with identity formation (the attainment of a mature identity).

> This study highlighted that the uncertainty inherent in the transformation process in South Africa seems to call for the rediscovery of the family as a 'place of safety' within which identity formation can occur.

## RESEARCH STUDIES IN THE INTERPRETIVE/CONSTRUCTIVIST PARADIGM

Other researchers, who are also practitioners in the fields of Education and Educational Psychology, have found the interpretive/constructivist paradigm a more appropriate research paradigm. In this regard, many researchers find that their research questions, views of the world and the practicalities of their situations are best answered by **qualitative research methods,** which Guba and Lincoln (1989) describe as the preferred, though not exclusive, method of inquiry for researchers working in this paradigm. Qualitative research aims at providing a comprehensive description of a specific phenomenon rather than the testing of hypotheses common to experimental research methods. All the studies we have selected, except the last, use the case study method, though qualitative research methodology can include several other methods.

Three practitioners who worked in special schools for learners who are deaf sought to understand the challenges posed by language and communication difficulties experienced in education for the deaf.

The first study, by Collair (2000), attempted to address the problem of placement in either special school or mainstream settings. Here the educational psychologist, who had to make recommendations on the placement of learners with hearing disabilities, explored the factors that contributed to successful placement in inclusive settings. A single learner who was deaf was chosen as the focus of a qualitative case study. Data was gathered in the home and the school context using semi-structured interviews, field notes and a review of personal records. Content analysis was used to analyse the data.

The learner's success in the mainstream was related to him having a mixed hearing loss which improved with the use of hearing aids to the extent that he was able to access the curriculum by means of verbal communication with some compensatory behaviours and learning support. Intrinsic and extrinsic factors, such as a supportive attitude on the part of the school as well as behaviours that supported learning on the part of the parent, further enhanced the learner's success in the classroom.

The second study, which was undertaken by Rutter (2003), examined the challenge of teaching literacy and oracy to learners who are deaf. In this study a learning support educator focused on the factors influencing teachers' acceptance, the problems experienced and the literacy development of deaf learners during the implementation and facilitation of the whole language approach. Data were collected by means of interviews, journal entries, workshops and observations. The researcher facilitated the whole language approach by providing resource material, building trusting relationships and continuously consulting with the teachers who took part in the study.

The findings showed that the learners' levels of confidence, their willingness to take risks, participate actively, share power, motivation, trust and interest contributed to their engagement in the language system – oracy and literacy – while it extended and enriched the teachers' practices and teaching strategies.

Pauw (2002) conducted the third study. Here the educational psychologist researched the use of developmental play therapy through the medium of sign language, as a therapeutic intervention with a learner who was experiencing emotional problems. Developmental play therapy was chosen because to some extent it enabled non-verbal communication. During this case study, data were collected through video recordings, unstructured interviews and observations, and were analysed through a coding system.

The findings of the study showed that developmental play therapy is an effective therapeutic technique in the treatment of young learners who are deaf, but also that some adaptations needed to be made.

In the next two studies to be discussed, the researchers sought answers from mainstream education to issues relating to inclusion and the average learner respectively. In particular, the study by Oswald (2002) sought to understand educators' attitudes towards inclusive education by exploring particular teachers' democratic values and their attitudes to inclusive education, as well as the relationship between these orientations and attitudes. The study primarily used a qualitative research methodology, but it also had a small quantitative component, which was limited to the data collection and data analysis phases.

> The findings of the research indicated that teachers were still in a transitional phase on the road to the transformation of school and classroom practice and were resisting renewal in education. Although they accepted the philosophic underpinnings of inclusive education, they did not see themselves as ready to implement it. There was a significant correlation between the teachers' democratic/autocratic orientations and their attitudes to inclusive education.

The study conducted by Cairns (2001) sought to make a contribution to the understanding of the educational needs of over-age learners. An educational psychologist, who had to provide guidelines on support for over-age learners, used a qualitative approach to provide a clear description of the factors that impacted on the educational needs of these learners.

> The study revealed that over-age learners experienced a sense of educational displacement; that the attitudes and beliefs of teachers directly influenced their educational responses to the needs of over-age learners; that over-age learners struggled with basic scholastic skills; and that the provision of support came primarily from classroom peers.

The final study we will discuss in the interpretivist/constructivist paradigm was conducted by Mkhize and Frizelle (2000). In their contribution to the field of career development they argued that the complex process of career development should be understood within its social cultural context, and that this process should be defined by the individuals involved.

These authors (2000) developed an interview schedule which they presented as a guide in conducting narrative career research. The

interviewees were invited to tell the story of their career development from the earliest time that they could remember. The researchers then developed a methodology for analysing these stories. The method is based on a sequence of four separate, but interwoven, readings of the stories, in which the first reading concentrates on understanding the career story as it was experienced by the narrator in the process. In the second reading, attention is paid to 'the emerging sense of self' in relation to groups and significant others in the individual's life, the tensions between the two and the negotiations in this respect. The third reading studies the self as experienced in relation to others, real or imagined, living or deceased, and how the self feels and reacts in relation to these others. The broader social, cultural and political contexts in which the individual's career development takes place is explored in the fourth reading.

From these readings 'the social embeddedness' of the process of career development is illustrated, as well as how the exposure to various perspectives shapes a person's consideration of careers. The extent to which an individual's career story is influenced by historical and cultural circumstances is also highlighted. By employing this narrative-based research methodology, the researchers found that career development could be reconceptualised as a writing and rewriting of self. Career development is an open-ended approach in which individuals grapple with the various perspectives from their cultural and social contexts.

Educational psychologists are challenged by the findings of this research study to gather information, including cultural knowledge and hypotheses, in order to assist clients in mapping and inventing possible futures in a complex world filled with change and uncertainty.

## RESEARCH STUDIES IN THE EMANCIPATORY PARADIGM

According to Mertens (1998), there is a group of researchers who are critical theorists, participatory action researchers, Marxists, feminists, ethnic minorities and persons with disabilities (the active subjects of the research), among others. For the purposes of this discussion, we shall call the paradigm they work in the 'emancipatory paradigm'. Mertens, Farley, Madison and Singleton (1994) emphasise four characteristics which distinguish this work from that done in the positivist and the interpretive/constructivist paradigms:

1 The lives and experiences of diverse, traditionally marginalised groups such as women, minorities and persons with disabilities are most important.

2 The work focuses on the uneven distribution of power in relationships owing to gender, race or disability.
3 It examines the political nature of social inquiry.
4 An emancipatory theory is used to inform the methodology of the research.

In the first example of this type of work, Daniels (1996) utilised a **qualitative methodology** to explore, through in-depth interviews and observations, the meaning literacy had in the lives of women who elected to participate in the only basic education programme that was available to them in the region where they lived. As poor coloured women growing up on farms, their lack of access to education was exacerbated by their race and class. The study had three aims:

**Qualitative methodology:** Aims at providing a comprehensive description of a specific phenomenon rather than the testing of hypotheses common to experimental research methods. An effort is made to understand situations in their uniqueness as part of a particular context and the interactions within the context under study.

1 To investigate the women's motivations for participating in the study and their expectations of literacy.
2 To record the women's experiences as illiterate women and the influences their attendance of the literacy programme had on their everyday lives, as well as their approaches to life.
3 To explore the women's ideas on the role that the non-formal programme could play in empowering marginalised groups, especially women, in South Africa.

The researcher acted as a participant observer, which helped her to have a close personal understanding of what happened in the programme. The emancipatory nature of the outcomes of this study lies in the fact that these women, who belonged to a traditionally oppressed group, were given voice – their experiences and needs were heard and recorded.

> As a result of this research study the programme was adjusted and developed to address the needs of the women in a more satisfactory manner. An awareness of the power distribution that exists within this programme was created, and both educators and participants were made more cognisant of their role in maintaining and/or challenging that power structure.

The second example is work conducted by Morkel (2002). This study used a **participatory action research (PAR)** methodology. Babbie and Mouton (2001) distinguish the following seven key principles of PAR:

1 The role of the researcher as change agent.
2 The importance of the concept of 'participation'.
3 The research relationship and its democratic nature.
4 The importance assigned to local knowledge.

5 The generation of knowledge so that action can take place.
6 The position of 'empowerment' in PAR.
7 The ethical considerations and respect for participants' values and culture.

Morkel (2002) worked at a Muslim school in which a group of boys with a reputation for stealing were granted the opportunity to share their stories with communities of concern. These communities consisted of people amongst whom they lived, people that cared, people that were concerned about them. Honesty meetings, honesty tests, honesty certificates and honesty celebrations formed part of a narrative therapy manner of working together in an attempt to regain reputations for honesty. Through collaboration with a cultural consultant, it became possible for the researcher (a white Christian woman) to do therapy with the boys in a respectful and ethical way.

Information was recorded by reflexive procedures, which included feedback sessions with the boys' principal, who acted as a cultural advisor. Other reflexive procedures included the declaration of experience and the knowledge base that was brought to the therapy by the researcher, a style of reporting which interrupted and problematised the text through questions and reflections, the use of rough notes and the memories these triggered as well as a research journal about the feelings and experiences of the researcher and the input of supervisors.

The researcher realised that community work cannot be done *for* people, but rather only *with* people (Bosch, in Morkel, 2002). Her research consisted of writing up the process, and reflecting on and participating in it on an ongoing basis. 'Without participation there is no knowledge and therefore no power' (Speckman, in Morkel, 2002).

'The sharing of stories of pain and resistance contributed to the mutual care among participants from communities separated by racism, former legislation, and differences of culture and religion' (Morkel, 2002: abstract). The researcher also believed that her sharing of these stories led to a raising of consciousness and to an acknowledgement of the boys' resilience and effort to survive that she witnessed.

Finally, we explore an example of **deconstructive research**. Arguably, it ought to be viewed as a separate research paradigm, but it also has emancipatory aspects. Deconstruction is a form of textual practice derived from the work of the French philosopher Jacques Derrida, which aims to

demonstrate the inherent instability of both language and meaning (Huang, 2003). It focuses on the uneven distribution of power within relationships, the coherence of power and the nature of knowledge.

The researcher, Van Rooyen (2002: ii), refers to herself pointedly as 'I' in her narrative because she was consciously challenging 'the construction of authoritative, knowing absence constructed by the use of self-objectifying phrases such as "the researcher"'. Her work comprised a deconstructive view of the Education White Paper 6: Special Needs Education, which is the response of the South African government's Department of Education (DoE) to the inclusion movement. The purpose of her research was not to construct conclusions, but to '(de)construct the polyphony of voices, truths and realities speaking into and out of White Paper 6' (Van Rooyen, 2002: 9). Having been deconstructed, 'discourses can no longer dominate, judge, decide: between positive and negative, the good and the bad, the true and the false' (Derrida, 1992: 86). The text is thus opened to different readings, which in itself offers emancipatory opportunities. The title of Van Rooyen's (2002) work serves as an example of the linguistic techniques applied: 'In/exclusion and (dis)ability: (De)constructions of Education White Paper 6: Special Needs Education'.

> The narrator stated clearly, in conclusion, that she did not attempt to generalise, reach any broad conclusions or make recommendations. She suggested that 'what is said and written about (dis)ability and in/exclusion should be (de)constructed, particularly in texts constituted as state policy' (Van Rooyen, 2002: 140).

## CONCLUSION

We have discussed the various studies in this chapter to highlight the interdependent relationship between practice and research. It is clear that without research many problems in practice will remain just that. There is a genuine need for practitioners to use the golden opportunity for research that practice offers.

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 How would you define research?
2 What is the relevance of theoretical structure to research design? Critically discuss.

3 What are the basic beliefs that define a research paradigm?
4 What are the fundamental differences between the positivist/postpositivist and interpretive/constructivist paradigms?
5 List the seven key principles of participatory action research as distinguished by Mouton (2001).

## VOICES

I now realise that I should have chosen to work within the emancipatory paradigm as it fits my way of thinking better, as well as the critical way in which I was originally trained to work.

– Psychologist, Western Cape

Referring to the research process as a journey and to the researcher as the traveller, as well as comparing research to a mystery or puzzle to be solved, bestows a feeling of adventure onto research, enticing you to start your own research projects.

– Student, Western Cape

## APPLICATION STRATEGIES

The strategies are as follows:

- Think about a question with which you have been struggling. Reformulate this as a research question.
- Think of a research question, and consider at least three methodologies in which you can find an answer to this question.
- Recall the three research paradigms identified by Mertens (1998) and identify the paradigm that most closely approximates your worldview.
- Discuss the possible limitations of the positivist/postpositivist research paradigm.
- Consider Mertens' (1998) emancipatory paradigm. Emancipatory researchers seek to confront social oppression and attempt to relinquish control of the research to marginalised groups. Discuss how these groups could be included as active participants in the research process.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 After working through this chapter, how has my view of research and its importance for an educational psychologist or educator changed?
2 What areas related to Education do I think require research in order for the process of reform to be facilitated?
3 According to the norms and standards for educators (Department of Education (DoE), 2000), some of the roles of the educator are that of scholar,

researcher and lifelong learner. How can I become a researcher in my classroom and how can I encourage learners to become researchers as well?

4 If I had approached any of the research studies discussed in this chapter within any of the other research paradigms, would it have influenced my findings, and what differences could I envisage?

## TEN FACTS ABOUT RESEARCH STUDIES IN EDUCATIONAL PSYCHOLOGY IN SOUTH AFRICA

1 Research can be both a fulfilling and a thrilling enterprise.
2 Research can be defined as a 'process through which we attempt to achieve systematically and with the support of data the answer to a question, the resolution of a problem, or a greater understanding of a phenomenon' (Leedy, 1997: 157). We should not forget that accountable and relevant research can empower, transform and change the researcher and the researched, and their respective circumstances.
3 The practices of teaching and psychology are based on theories as conceptual foundation.
4 Every research study should be located within a theoretical tradition (a research paradigm).
5 It is a complex and nearly impossible task to categorise all research in the field of Educational Psychology into a few paradigms.
6 Mertens' (1998) models of three major paradigms (positivist/postpositivist; interpretivist/constructivist and emancipatory) provide a highly useful means of categorisation.
7 Work done within the positivist paradigm is methodologically firmly entrenched within a quantitative methodology, as illustrated by the three research studies.
8 Researchers working within the interpretive/constructivist paradigm primarily employ a qualitative methodology as an approach to systematic inquiry, as is reflected by the studies used as examples of work done within this paradigm.
9 Research done within the emancipatory paradigm focuses on power relationships, the political nature of social inquiry and the experiences of marginalised groups.
10 Research confirms or rejects the results of previous studies, or it generates new knowledge and insight in a field.

## SUGGESTED READINGS

Babbie, E and Mouton, J (2001). *The practice of social research.* Cape Town: Oxford University Press.

This book is considered an important source on all aspects of social research. It contains South African examples, case studies and data sets to enhance accessibility and relevance for local students. It offers valuable knowledge on all aspects of social inquiry and provides

information on all the methodological paradigms in social research and different research designs. An interesting section on how to analyse data is also included. The book concludes with a chapter on the ethics and politics of social research.

Denzin, NK and Lincoln, YS (2000). *Handbook of qualitative research* 2nd edition. Thousand Oaks, CA: Sage.

This book is an excellent manual covering all aspects of qualitative research. It portrays the changes in the world of research with regard to new research paradigms, methods and genres for the presentation of data in a highly enlightening way, assisting in making research fun and deeply satisfying work to do.

Merriam, SB and associates (2002). *Qualitative research in practice: Examples for discussion and analysis.* San Francisco, CA: Jossey-Bass.

We recommend this book as a valuable resource for students and practitioners in all fields where interpretive qualitative research is conducted, including Psychology and Education. Interestingly, this book is primarily a collection of articles exemplifying different types of qualitative research. Each article is followed by a short reflection piece by the article's author commenting on his or her experience engaging in this type of research.

Mertens, DM (1998). *Research methods in education and psychology: Integrating diversity with quantitative and qualitative approaches.* Thousand Oaks, CA: Sage.

This is accessible book written specifically for research in Education and Psychology and therefore all the examples, case studies and data sets have been taken from these practices. The book covers most aspects of social research, with a particular emphasis on diversity studies.

Terre Blanche, M and Durrheim, K (1999). *Research in practice: Applied methods for the social sciences.* Cape Town: University of Cape Town Press.

Many students have found this book helpful – it has been written by South African authors for South African students and practitioners, employing practical examples drawn from the South African experience. All aspects of social research are covered. According to the editors, this book was compiled with the intention of equipping students not only with the conceptual and practical tools to carry out particular research procedures, but also with a sense of what it means to be a professional researcher in South Africa today.

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# An Introduction to Education Theory

Jonathan Jansen

## INTRODUCTION

Many people think of 'theory' as abstract and sophisticated arguments or formulations about the world that have little to do with everyday life. Theory, in this view, is something that social elites and established scholars talk about; it does not apply, the argument goes, to 'the real world'. This chapter attempts to demonstrate that theory is everywhere, and that whether it is explicit or implicit, we all have theories about ways in which to end crime, about how schools should function, and about how children learn, for example. In this chapter, we can adopt Kurt Lewin's dictum: 'There is nothing so practical as a good theory.'

The chapter begins with a general discussion on the nature of theory, and continues with a series of exercises that demonstrate the workings of personal theory. It concludes with a survey of various theories and philosophies of Education, and how some of these standpoints are reflected in school and classroom life.

## DEFINING THEORY

In public life and in academic texts, people use the word 'theory' in a myriad ways. Consider the following examples:

- **Theory as the opposite of practice:** Theory is about thinking and reflecting, as opposed to doing things.
- **Theory as hypothesis:** Theory is an initial idea, model or heuristic that needs to be tested or followed up to determine whether it is valid or true.
- **Theory as explanation:** Theory is a more or less established explanation for a specific phenomenon, such as how children learn.

It is important for us, therefore, when someone uses the word 'theory', to determine how and in what context it is being used. The most common usage in the literature is that of 'theory as explanation', such as in:

- Piaget's theory of child development in Psychology
- Einstein's theory of relativity in Physics
- Darwin's theory of evolution in Biology
- Marx's theory of social change in Political Economy.

These large-scale or 'grand theories' made impressive, sweeping statements about the nature of complex phenomena and attained formidable status throughout the world as **explanations** of physical or human events. There are many other theories closer to Education, such as Skinner's theory of learning (behaviourism), Krashen's theory of language acquisition, or Stead and Watson's theory of career choices.

But theory is not always used as established explanations churned out by the great social thinkers like Marx or Darwin. In fact, there is considerable scepticism towards 'grand theory' given the spectacular failure of some of them, the constant refinement of others, and the considerable diversity of national and local contexts that defy *the one big explanation* across time, space and cultures for social or educational change. Other kinds of theories therefore emerged, and we need to discuss two of them.

First, the notion of **grounded theory** starts with the development of theory or theoretical explanation from the ground up. That is, rather than studying a phenomenon through the lens of an established theory, which is then applied or tested against the data generated in the course of the research, grounded theory allows the explanation to emerge from the data assembled in the study itself. This is a complex process and difficult to accomplish, but for our purposes the point is simply that grounded theory starts where established theory ends: by allowing the data to generate new explanations.

Second, **personal theory** is premised on the notion that everyone has beliefs about the way the world works, what the causes of problems might be, and how these are best resolved. These mental 'constructs' act as extremely powerful tools that guide our choices and behaviours as persons or professionals in the work context. For example, your personal theory with respect to the nature of anxiety (see the Internet website www.bamaed.ua.edu/~kcarmich/bce516/PerTheory.html) could have far-reaching consequences for patients in a counselling context, depending whether you believe that people:

- become disturbed because of their experiences
- are born with a genetic predisposition to disturbance
- are disturbed by their environment (such as family, friends, community)
- disturb themselves because of their experiences
- disturb themselves because of how they choose to interpret events.

Becoming aware of your personal theory could therefore help you to make better choices, enhance your awareness of the arbitrary nature of some of your own values, and empower you to intervene more effectively among persons or groups whose values differ from your own.

### Personal theory and its application in real-life contexts

Let us situate our personal beliefs and theories in the context of specific statements about the world and our positioning within them. Consider the following slides.

*Slide #1 – 'The truth is out there' (from the television series The X-files)*

What do you believe about this statement? The statement suggests two things: first, that 'the truth' is something that exists and, second, that it can be discovered. This is a powerful notion associated with the traditional scientific thinking that science is about discovering truth, and that this truth resides outside of ourselves ('out there').

*Slide #2 – 'Race is real; and there are inherent differences between the races'*

Do you believe this statement is accurate? It seems to suggest that 'race' is a biological fact and that this can be determined on the basis of deep differences between these 'races'. This is a powerful understanding, especially in contexts like South Africa where race became a matter of both political and legislative establishment. Do you think people are *literally born* 'white' or 'black' – or is this is a social construct (something 'made up' by humans)?

*Slide #3 – 'The only way to reduce crime is to bring back the death penalty'*

Do you agree with this statement? It suggests a causal link between the death penalty and crime reduction. This again is a powerful claim, especially in societies with a high incidence of violent crime and a desperation on the part of citizens to 'deal' with such violence. Will the death penalty reduce crime, or will it simply satisfy a thirst for vengeance?

*Slide #4 – 'What you see is what you get; seeing is believing'*

Is this true? This combination of statements suggests that observation is reliable and uninterrupted by our own experiences or beliefs. It is often claimed about certain people that they are 'easy to read' and have no complexes or agendas. What is your theory?

*Slide #5 – 'Societies evolve over time through different stages of development'*

Do you agree with this? Many people believe that there is a natural evolution from one state of existence to a higher state of existence. In Child Development, Jean Piaget gave us the theory that children move systematically from one level of cognitive capacity to another. In

Economics, Walt Rostow argued that societies move from primitive to advanced stages of economic development. In Education, Beeby propounded that schools travel from one level of development to a higher, more sophisticated level over time. Is change and development linear, progressive and inevitable?

*Slide #6 – 'Markets are more efficient than governments in distributing resources'*

Do you agree? Since the fall of communist regimes, there has been a growing number of people who believe that governments should be less involved in determining how resources are distributed and that they should leave such decisions to the 'hidden hand' of the market. Governments, in this view, are inefficient and wasteful while markets are more reliable and efficient in regulating human behaviour and economic growth. What is your theory?

*Slide #7 – 'Islam is inherently violent, and opposed to the West' (Samuel P Huntington)*

What do you think? Not only Christian fundamentalists but also some respected scholars propound the view that Islam is by its very nature violent and intimidating, and that it has a long history of such positions. Given the highly emotional and religious-based ferment that underpin such views, it is difficult to think through this provocative statement in an objective manner. Yet the claim is made and defended by Christians zealots. Can we attribute such definitive behaviours to a religion like Islam? Can the history of Islam be reduced to such a singular interpretation? Is it possible, in fact, for anything to be 'inherently' or 'in essence' good or bad?

*Slide #8 – 'The stories of abused women are powerful, persuasive and authentic'*

What is your theory? This statement upholds the voices of women who are abused as the meaningful representation of the truth. Indeed, listening to voices of abused women makes it extremely difficult to believe that there can be another, different perspective on their experiences, or that such voices should not be accepted as valid without the need for further inquiry. Consider yourself a researcher in search of truth or a police officer investigating violence against women. Would you take the standpoint that anything abused women claim must be true and authentic?

*Slide #9 – 'There is a correspondence between socio-economic status (SES) and the chance of finding yourself on death row'*

What is your theory? This statement posits a relationship between SES and the chances of ending on death row. It further implies that people's chances of living crime-free lives depend on changing their social and economic circumstances. Note, however, that the statement does not argue that SES is the *cause* of people ending up on death row; it simply says that there is a *correspondence* between these two events. Do you believe there is such a relationship? That people's life chances are in part determined by their socio-economic environment? Or do the rich and the poor have an equal chance of finding themselves on death row?

*Slide #10 – 'The Holy Word speaks for itself'*

What is your theory? This statement implies that the literal word is true, and again speaks to one of the strong beliefs in fundamentalist religion – for example, that the meaning of scriptural texts is singular and self-evident. In other words, this position holds that the meaning of the author can be 'read off' the written text. Do you agree? Think of a scriptural text that you might use (e.g. the Bible); is there one meaning for a specific scriptural claim, or does it have differing meanings for different people, and is that acceptable?

This series of slides teaches us that personal theory is a powerful operating principle in daily life. Frequently researchers are called upon to declare their personal theories in the course of doing research, and professional counsellors, for example, are often asked to make their personal theories explicit as a resource in the course of doing therapy. In other words, personal theory is not something to be dismissed as subjective or irrelevant; instead we as professionals and researchers need to be conscious of it.

## ESTABLISHED THEORIES AND PHILOSOPHIES OF EDUCATION

Most philosophies and theories have developed over centuries and are well described in the literature generally and education studies specifically. As you will see, many of them have their correlates in your own personal theories about society, schooling and change.

It is most important that you have a working understanding of these theories and philosophies, and of their implications for educational practice. Therefore, here follows a brief survey of major theories and

philosophies, and their relevance to education. Note, however, that this is a *brief* survey and that many complexities and longstanding debates underpin and accompany each of these concepts.

### Rationalism

- **Human reason** surpasses other forms of knowing.
- Rational knowledge is timeless, objective and true.
- Rational knowledge claims hold across time and space; evidence through the senses is therefore fallible and misleading.

### Empiricism

- Knowledge of the world can be derived only from the senses; knowledge can therefore be derived only through **sensory experience**.
- Francis Bacon said: 'There is nothing in the mind that was not first in the senses'; sense data is therefore the ultimate objectivity, uncontaminated by value or theory.
- There is a strong distinction made between fact (objective) and values (subjective).

### Positivism

- Only objective, observable facts can be the basis for science.
- Theological (the supernatural) or metaphysical claims (the abstract) must yield to the positive – that which can be explained in terms of **scientific laws** (Auguste Comte, the Vienna Circle, logical positivism).
- Facts are value-free and independent of theory.

### Interpretivism

- Foregrounds the meaning that individuals or communities assign to their experiences.
- Intersubjective meanings are crucial to achieving understanding and meaning.
- Since behaviour is constituted by social conventions, interpretation (hence interpretivism) is required; the facts do not speak for themselves.
- In contrast to positivism, the distinction is not made between subject (the researcher) and object (the event being studied).
- The social context, conventions, norms and standards of a particular person or community are crucial elements in accessing and understanding human behaviour (the truth is relevant and subject to these subjective elements); there are parallels with hermeneutics and phenomenology.

### Critical theory

- Concerned with the critical meanings of experiences as they relate to gender, race, class and other kinds of social division and oppression.
- Conflict (such as class conflict in Marxism) and inequality are crucial to understanding the dynamics of human relations.
- Society reproduces inequalities from one generation to the next (reproduction theory) and resistance becomes an important part of the response to injustices of this kind (resistance theory).
- The fact that multiple identities (black, rural, third world and women, for example) that individuals hold means that these kinds of oppressions 'intersect' in their effects on persons and society.

### Functionalism

- Biological organisms have systems that perform various specialist and survival functions; similarly, social institutions 'function' in a systematic and coherent way through their different constituent elements to ensure survival and optimal functioning of that institution or organisation.
- Role differentiation and social solidarity are key elements in the smooth functioning of any organisation.
- Organisations and societies evolve and adjust to changing conditions in order to ensure the continued, efficient and integrated functioning of all elements of that organisation or society.

### Behaviourism

- Set of doctrines propounding that human and animal behaviour can be explained in terms of external stimuli, responses, learned histories and reinforcement; all human behaviour could therefore be understood in terms of cause and effect.
- Reinforcement (as per BF Skinner) can increase (positive reinforcers) or decrease (negative reinforcers) desired behaviour.
- Mental events (such as beliefs or desires) are therefore less useful (if not irrelevant) in the understanding of behaviour.

### Modernism

- An understanding of the world that privileges certainty, order, organisation, prediction, rationality, linearity, progress, truth and freedom.
- Celebrates the world of science and the scientific method, the authority of the expert, the singularity of meaning, truth and objectivity.
- Associated with modern (as opposed to pre-modern) societies, developed states, Western nations.

- Projects great stories (**meta-narratives**) about the world, e.g. Marxism, and **grand theories** about 'stages of development' (as per Beeby in Educational Development, Piaget in Child Development, and Marx in Social and Economic Development).

### Postmodernism

- A broad term encompassing a variety of approaches, most of them valuing uncertainty, disorder, indeterminacy and regression (rather than inevitable progress).
- Assigns value to multiple meanings rather than the single, authoritative voice of the expert/the scientist.
- Values 'voice', the subjective and multiple voices of individuals and communities rather than the predetermined rules for action.
- In this world, identity is not natural or God-given, it is a human construct which changes constantly; each individual has multiple identities and different identities matter at different times.
- Applied mainly in the artistic and social sciences.

### Structuralism

- Belief that underlying 'structure' or 'essence' determines the meaning of an event or phenomenon.
- Thus, for example, unchanging structures of grammar underpin all language (Linguistics), that economic structures or organisation determines social beliefs and behaviours (Economics), that hidden structures of the unconscious mind control behaviour (Psychology, Psychoanalysis).

### Poststructuralism

- A relative of postmodernism, poststructuralism represents a loose connection of authors and ideas holding the general view that 'structures' are neither easily discovered nor (for philosopher Jacques Derrida) easily discoverable; the text, being a human construction, is therefore fallible, and the original meaning of the author cannot be determined ('**undecidability**').
- The underlying structure of text is slippery and deep, and authorial intentions are difficult to unravel.
- The task is to continually 'deconstruct' (Derrida) the text; there is a constant stream of interpretations (rather than fixed meaning).
- Applied mainly in the fields of Languages and Linguistics.

### Postcolonialism

- A set of approaches to the understanding and interpretation of colonialism that draws both continuities and challenges to the grand narratives of colonial rule.
- A re-presentation of the colonial past, often by writers from the colonies; a tradition of 'writing back' (e.g. Stuart Hall, Homi Bhabha).
- Demonstrates the continuing presence of the colonial but also reinterprets that experience from the position of the 'subaltern'.
- Critical of the designation and characterisation of the non-western 'Other' – as in Edward Said's *Orientalism* – and of binary oppositions: them/us, West/East.

Test your understanding of these concepts by completing the review questions in Appendix A at the end of this chapter.

### Applications to education

What does all of this mean for schools? How would we recognise a school, for example, organised along functionalist lines? How would a teacher, subscribing to a behaviourist philosophy of education, actually teach? And what would a curriculum based on principles of critical theory actually look like? These three examples will be discussed with the challenge that students develop similar strategies for linking a particular theory or philosophy of education to a particular expression of educational practice.

### The functionalist school

In Saambou Primary School, every member has clearly defined roles and expectations. The students are conceived as learners. The teachers are responsible for teaching. The principal and his deputies are responsible for management and leadership. The administration staff is responsible for secretarial work, ground maintenance and general administrative duties. The governing body, with its parents, is responsible for governance and policy of the school. The moment anyone 'steps out of line' – such as learners who disrupt the smooth functioning of the school – there is immediate reprimand and punishment so that the defaulter 'gets back into line'. In other words, every component of the school, working with the others, enables the institution to function smoothly and predictably in achieving the mission and objectives of Saambou Primary.

#### *The behaviourist teacher*

This particular teacher will organise his teaching to ensure that learners are exposed to specific stimuli that provoke particular responses which in

turn demonstrate that learning has actually taken place. For example, learners are required to memorise the periodic table of elements or the 12-times table. Every time a learner does so successfully, she receives a 'merit' or 'star' which rewards the successful recitation.

In another instance, the computer program designed by the teacher provides a series of questions about spelling; the computer pronounces a word, and the student is supposed to choose the correct spelling from a series of five options on the screen. When the student selects the correct spelling option, the computer announces 'well done' (or 'try again' when the student has picked the incorrect option). In other words, there are clear and predetermined instructions, and there is immediate and personal feedback.

### *The critical curriculum*

This curriculum selects content that represents critical issues in school and society for teaching and learning. For example, the environmental education section of the Biology curriculum will demonstrate the ways in which companies pollute the surrounding water and endanger the air breathed by local communities in their single-minded goal of maximising profits. The History curriculum will show how those with power have dominated those without power through war and oppression. The Economics curriculum will explain why the poor remain poor and how capitalist economies reproduce inequality in society by privileging those who are already advantaged by birth, inheritance and social class. The curriculum will therefore draw strong links between classroom knowledge and social knowledge, and will identify ways in which human agents can resist and overcome these social injustices.

## CONCLUSION

The descriptions of how education theory and philosophy might apply in the classroom do not imply that every teacher and every school represents one type of practice or thinking. In fact, it is quite possible to have a highly critical teacher in one classroom and an extremely conservative teacher in the room next door. Similarly, these pure descriptions require critical engagement. Schools seldom function as neatly as the functionalist expects: often schools are disruptive, unpredictable and even chaotic, and there is a constant struggle to bring order and predictability to them. The behaviourist teacher can operate only at a basic level of stimulus-response, which does not empower learners for abstract thinking and self-motivation. And the critical curriculum can politicise everything for the learners at the expense of them learning 'the basics' required for participation in a modern economy.

In other words, your task is both to understand and also to *critically engage* these theoretical positions in your growth as a professional, a scholar and a citizen.

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## APPENDIX A

In the space provided, place the symbol A, B, C, etc which you believe best corresponds with each of these statements. Use one symbol per statement.

1 'Beauty is in the eye of the beholder.' _____
2 Schools are systems in which the components work together in synchrony. _____
3 The human mind is a composite of all prior experiences. _____
4 We should demonstrate an 'incredulity' towards meta-narratives. _____
5 'The truth shall set you free.' _____
6 Can you think of something you have never thought of before? _____
7 Words are inadequate 'signs' of the things they refer to. _____
8 Reasonable people, working with carefully designed research protocols, will all generate the same findings and arrive at the same conclusions. _____
9 Illegal immigrants from Africa have dark, oily skins, and are different from our own people. _____
10 All knowledge is based on certain secure truths which form the bedrock of all our beliefs. _____
11 'Things fall apart.' _____
12 Zulus are naturally aggressive. _____
13 Understanding JM Coetzee's *Disgrace* is difficult; there are so many different interpretations of what he meant. _____

14 There is too much wastage in bureaucracies; we need to reduce the fiscal deficit; let markets regulate choices and opportunities.

_____

15 It has been proven that if you beat children, their results improve.

_____

| | | |
|---|---|---|
| A. poststructuralism | B. empiricism | C. social constructivism |
| D. neoliberalism | E. functionalism | F. modernism |
| G. structuralism | H. positivism | I. postcolonialism |
| J. rationalism | K. interpretivism | L. critical theory |
| M. behaviourism | N. postmodernism | O. essentialism |
| P. Orientalism | Q. essentialism | R. foundationalism |


# Theoretical Approaches in Psychology

Kobus Maree

## INTRODUCTION

This chapter gives an evaluative synopsis of the main theoretical approaches in Psychology that have been developed during the last century. The objective is to obtain perspective on the way behaviour is explained and the way persons acquire knowledge.

Such theories provide psychologists with the theoretical foundation for establishing a practice that has as final objective an acceptable, applicable and suitable intervention in the interest of their clients. Above all, it is well worth remembering that all approaches have the same aim in mind, namely to help persons function to their fullest possible potential.

## THE ROLE OF THEORY

Your training and allegiance to certain theoretical approaches will have a major influence on the way in which you attempt to help others. However, regardless of your theoretical stance, your allegiance should never be to a certain theory or theoretical approach, but rather to the ideal of administering therapy that is in a client's best interests (Phares, 1992). This is not a simple task, especially in light of South Africa's diverse, multicultural population. Indeed, depending on the culture, different weights may have to be allocated to different aspects of certain theories (variables), if the latter are to become more acceptable to all population groups (Fouad & Bingham, in Stead & Watson, 1999).

Personality theories have two broad functions. Firstly, they help us to explain how people make choices and to understand the differences in these choices. Secondly, they help us facilitate (some would even say predict) the making of a choice by a client. However, 'a rigid and blind adherence to a theory can reduce one's effectiveness as a clinician ... When a better [theory] comes along, one must have the willingness and capacity to adopt it. Ultimate allegiance should be not to a theory, but to the very best ways of describing clients and intervening on their behalf' (Phares, 1992: 64).

## PSYCHODYNAMIC THEORIES

Psychodynamic theories have a number of common features, including the following:

- **Psychological determinism:** Freud (1856–1939) believed that a person's past (including his childhood traumas) predetermines his personality: Adult psychological disorders result from childhood anxieties or traumas.
- **Childhood traumas/anxieties:** These function subconsciously, since they are too painful or too threatening to bear. Freud distinguishes

between the subconscious (a person's repressed side), her preconscious side (those contents that are unconscious, but that can be recalled with little effort) and her conscious (those contents that she is aware of at a given point).

- **Motivation:** This may be described as an attempt by a person's unfulfilled desires and unmet needs to be realised in the present, in disguised format.
- **Genetic aspects:** More than any other approach, psychodynamism emphasises the role of a person's earliest experiences and the unfinished business in his life, especially with regard to early life experiences (Erasmus & Du Toit, 1986).
- ***Trieb* or basic desires:** A person's innate biological desires are regarded as the basic driving forces in her life.

***Trieb:***
Innate biological desires regarded as the basic driving forces in a person's life.

### Personality structure

Humans are energised by two instincts: the life instinct (**eros**) and the death instinct (**thanatos**). According to Freud, a person's personality comprises three components:

1 **The id:** This is the original system of the personality that contains all the biological aspects and functions on the pleasure principle, that is, the search for immediate need gratification, regardless of moral consequences.
2 **The ego:** This is responsible for reality testing. The reality principle guides the ego. The environment sets certain demands and a person has to adjust her behaviour to meet these demands.
3 **The superego:** This is the internal representative of traditional ideals and values and views of society, which are strengthened by factors such as punishment and reward. The superego is composed of both the conscience (which facilitates feelings of guilt about 'wrong' or immoral/unethical behaviour) and the ego ideal (which rewards morally 'correct' behaviour with feelings of pride) (Sue, Sue & Sue, 2003).

**Eros:**
Life instincts.

**Thanatos:**
Death instincts.

**Id:**
The original system of the personality.

**Ego:**
The part of the personality that develops during the first year of life to help a person deal with frustration or delay of gratification.

**Superego:**
The internal representative of traditional ideals and values and views of society.

### (Ego-)defence mechanisms

According to Barlow and Durand (1999: 18), 'The ego fights a continual battle to stay on top of the warning id and superego.' From time to time this conflict produces anxiety, which threatens to overpower the ego, which in turn activates its defence mechanisms. The difference between 'normal' and 'abnormal' anxiety lies in the fact that in the latter case no identifiable threat is evident, or the (perceived) threat is out of proportion with the emotion it evokes (Gillis, 1986).

Defence mechanisms that function subconsciously and distort reality are aimed at protecting the ego from anxiety. According to Barlow and Durand (1999), Carson and Butcher (1992) and Gillis (1986), such mechanisms include the following:

- **Denial of reality:** Refusing to recognise or acknowledge either an objective reality or a subjective experience.
- **Acting out:** Displaying excessive or socially unacceptable behaviour; not taking possible consequences into account.
- **Fixation:** Attaching oneself to another person in an unrealistic or exaggerated way or displaying infantile behaviour.
- **Splitting:** Perceiving others to be either entirely good or bad, without allowing for a mixture of qualities.
- **Repression:** Shutting off or blocking unwanted thoughts, wishes and desires from our awareness.
- **Identification:** Attaching ourselves to or identifying with someone of high standing, thereby raising our own (perceived) standing or feelings of self-worth.
- **Overcompensation:** Making up for or covering (perceived) weaknesses by placing the emphasis on desirable traits.
- **Isolation (intellectualisation):** Cutting off from the mainstream of consciousness any thoughts that are emotionally heavily laden.
- **Emotional insulation:** Protecting ourselves by withdrawing or by acting passively in an attempt to reduce anxiety.
- **Undoing:** 'Disproving' or making up for undesirable actions, desires, thoughts or feelings by displaying or performing another (counter) action.
- **Projection:** Attributing our own unacceptable thoughts, wishes and feelings (wrongly) to other people.
- **Regression:** Returning to earlier infantile ways of acting, reacting or thinking.
- **Sublimation:** Adapting unacceptable or forbidden impulses to socially acceptable behaviour.
- **Reaction formation:** Replacing unacceptable (aggressive) impulses (thoughts, feelings) with directly opposite impulses.
- **Rationalisation:** Using incorrect ways of reasoning to conceal the real motivations for feelings, thoughts and actions.
- **Displacement:** Unconsciously disconnecting or transferring anxiety from the true source to a less threatening person or object (that can be avoided).
- **Fantasy:** Meeting unmet or unfulfilled needs or desires by imaginary actions.

### Developmental phases

Our personalities are by and large determined by the experiences of our first five to six years of life. Psychodynamists believe that development of the human personality progresses through a number of consecutive psychosexual stages. In Freud's opinion, the personality develops in conjunction with the **libido** (sexual urge), which pushes a person through the different phases, as follows:

**Libido:** Sexual urge.

- The **oral phase** (first year or two of life) is characterised by a focus on the need for food.
- The **anal phase** (more or less the second year of life) is characterised by a focus on the need to excrete.
- The **phallic phase** (between the third and fourth year of life) is characterised by a focus on sexual and aggressive feelings that pertain to the functioning of the sexual organs. Freud believes that, during this phase, the young boy falls in love with his mother (the Oedipus complex) and dreads that his father might castrate him for this, while the young girl falls in love with her father (the Electra complex).

**Oedipus complex:** Young boy falls in love with his mother.

**Electra complex:** Young girl falls in love with her father.

- The **latent phase** (between 6 and 12 years) is characterised by a decrease in importance of sexual motivations and drives while the child develops skills and participates in a diverse range of activities of a non-sexual nature. It is supposed to be a relatively calm phase.
- The **genital phase** (beginning during puberty) is characterised by a focus on the need for sexual fulfilment in conjunction with another person.

Progressing smoothly through each phase is crucially important for a person's healthy development. If we fixate in any specific stage, our emotional development at that psychosexual stage is frozen. Every stage displays certain distinct traits and (in the event of fixation at a particular stage) can be identified by certain conflicts.

### Causes of psychological disorders

According to Freud, all non-psychotic psychological disorders are the result of:

- underlying unconscious conflicts
- the anxiety that is created by these conflicts
- the functioning of the defence mechanisms.

Freud refers to these disorders as '**neuroses**' (disorders of the nervous system) (Barlow & Durand, 1999: 19). He maintains that ego weakness manifests during sleep (a natural state) as well as under conditions of

**Neuroses:** Disorders of the nervous system.

extreme fatigue. Therapy, therefore, is aimed at recreating or inducing these states via hypnosis and projective techniques (Sue et al., 2003). Dealing with a client's 'unfinished business', making the subconscious conscious, and dealing with resistance, transference and dream analysis are all action points in any psychoanalyst's 'therapeutic toolbox'.

### Critical evaluation

Psychodynamic theories emphasise our subconscious motives and experiences (Freud), the interpersonal aspects of behaviour (Sullivan), our striving for superiority (Adler), and our ability to overcome adversity and conquer our world (Erikson). Scholars unanimously agree on the major contribution offered by psychodynamic approaches. A criticism levelled at these approaches concerns the fact that the research was based on a case study and carried out in uncontrolled circumstances. The role of the past is generally agreed to be overemphasised, while (especially) Freud's exaggeration of the role of the sexual drive and his sexist views are debatable, if not unacceptable. The development of human potential, by contrast, is not sufficiently emphasised. It is generally agreed that not only does a person's past have an impact on him, but also that any human being is capable of impacting on his own future. Nevertheless, we should remember that Freud remains the benchmark for discussions around attempts to explain human behaviour.

## NEO-FREUDIAN PERSPECTIVES

Adler (1870–1937) laid the foundation for the revisions in Freud's work. He puts forward the view that, early in our lives, we all experience feelings of helplessness and dependence on other human beings, which give rise to feelings of inferiority. We are all driven by an inferiority complex, and not by the sexual instinct. In an attempt to compensate for these feelings, humans strive to attain superiority. Adler refers to style of life as the typical ways in which we try to overcome feelings of inferiority. We all share a desire to improve the well-being of other human beings (Phares, 1992; Nevid, Rathus & Greene, 1997). Adler bases his therapy on the concept or feeling of community (***Gemeinschaftsgefühl***), which is best translated as 'social interest', 'social feeling', 'community feeling' and 'social sense' (Ansbacher & Ansbacher, in Stein & Edwards, nd: 2).

***Gemeinschaftsgefühl:*** Social interest, social feeling, community feeling and social sense.

The Neo-Freudian movement increasingly emphasised the ego functions and the role of social influences (Phares, 1992). Fromm (1900–1980) contends that human beings possess two different and clashing basic dispositions: a human nature (the capacity for ethical reasoning) and an animal nature (experiencing needs such as hunger and

the sexual instinct). Whereas Freud regards instinctual forces as the driving force behind human behaviour, Fromm regards social forces to be the main thrust. In Fromm's view, the nature of a person's relationships with others is determined by his interactions with others at different psychosexual stages. Fromm regards positive ideals such as justice and truth as real characteristics, instead of rationalisations or sublimations of deeper-seated feelings or thoughts (Phares, 1992).

According to Horney (1885–1952), humans show an inherent striving towards self-realisation. Such an impulse is often blocked by a flawed self-concept or negative perception of the self. The competitive nature of society gives rise to feelings of helplessness, and this threat to the ego facilitates the development of ego defences against other people. Horney (Boeree, 1997) proposes a view of neurosis that is different from that of Freud, namely as continuous with normal life. She is well known for her proposition of the 10 neurotic needs, which consist of the need:

1 for affection and approval
2 for a partner
3 to restrict our lives to narrow borders
4 for power
5 to exploit others
6 for social recognition
7 for personal admiration
8 for personal achievement
9 for self-sufficiency
10 for perfection.

She groups these needs into three clusters of coping strategies: **compliance** (the first three needs), **aggression** (needs 4 to 8) and withdrawal (needs 3, 9 and 10) (Phares, 1992; Boeree, 1997). Psychologically healthy people manage to maintain a healthy balance between these three defences, while psychologically unhealthy persons fail to do so and become fixated on one of them.

Erikson (1902–1980) regards the conscious ego as a more important stimulus to human development than instinctive forces (the id). In his opinion, a child's psychosexual development is less significant and the different developmental stages are instead characterised by her developmental tasks and interpersonal problems. Erikson rejects Freud's deterministic approach and the Oedipus and Electra complexes in favour of the belief that healthy relationships between children and their parents are indeed possible (Meyer & Van Ede, 1996).

According to Sullivan (1892–1949), human behaviour is determined by interpersonal relationships. Psychological disturbances result from an

individual's difficulties with such relationships (Meyer, 1995). The search for security (safety) is a basic human goal. This goal includes the need for approval and prestige. Sullivan's theory stresses the importance of psychosocial aspects rather than instinctual ones (Phares, 1992).

Jung (1875–1961), who initially worked in close conjunction with Freud, later on developed his own psychodynamic theory, namely **analytical psychology**. Jung believed that, apart from the impulses of the id and the ego defences, our understanding of human behaviour has to include an understanding of self-awareness and self-direction. The latter refers to a person's individual subconscious (i.e. a creative combination of a person's repressed memories and impulses). Jung's therapy is based on the idea of rediscovering the 'forgotten language of the soul', and of (self)-individuation; in other words expanding the self to actualise potential optimally and to bring us into contact with ourselves. Dream analysis is a central component of Jung's therapy.

**Individual subconscious:** Creative combination of a person's repressed memories and impulses.

**(Self-)individuation:** Expanding the self so as to actualise people's potential optimally and bring them in contact with themselves.

## BEHAVIOURAL FOUNDATIONS

Behaviourist theories are concerned with the role of learning in human behaviour. The behavioural model is often referred to as the 'cognitive behavioural' or 'social learning model'. Pavlov (1849–1936) introduced the idea of **classical conditioning**, in which a neutral stimulus is paired with a certain response until it eventually elicits exactly that response. Conditioning is a way of obtaining information, especially emotional information. Watson (1878–1958), who coined the phrase **'behaviourism'**, was so influenced by these findings that he maintained that he could take any child and train her to become any type of adult. He went further and proposed that abnormal behaviour was the result of 'wrong' learning (conditioning) rather than ego defence, and that it could be changed by reconditioning. Watson strongly emphasised the impact of the social environment on our development and behaviour (Carson & Butcher, 1992).

**Classical conditioning:** A neutral stimulus is paired with a certain response until it elicits exactly that response; stimuli that are associated with unconditioned reinforcement start developing their own reinforcing qualities.

Skinner (1904–1990) and Thorndike (1874–1949) were the first to introduce the phrase **'operant conditioning'** or the idea that behaviours are controlled by the consequences that follow them. Thorndike laid the foundations for the formulation of the 'law of effect': a living organism will increase behaviours that are followed by positive results, and vice versa – behaviours that are followed by negative results will be decreased. Whereas classical conditioning is linked to the idea of developing involuntary behaviours, operant conditioning refers to voluntary behaviours. Furthermore, while behaviours based on classical conditioning are controlled by stimuli (or events that precede a response), in operant

**Operant conditioning:** The idea that behaviours are controlled by the consequences that follow them, that behaviour is maintained by its consequences.

**Law of effect:** A living organism will increase behaviours that are followed by positive results and vice versa (behaviours that are followed by negative results will be decreased).

conditioning reinforcement (positive or negative) controls behaviours (Sue et al., 2003). When reinforcement is withheld over time, a conditional response is extinguished. In other words, the person stops displaying that behaviour, i.e. extinction. Two significant aspects of both classical and operant conditioning are as follows:

1 When a response is elicited (conditioned) by a stimulus or a set of stimuli, a similar set of stimuli can condition the same response (generalisation).
2 Individuals learn to distinguish between similar objects and show different responses to them (discrimination). Obviously, differential reinforcement is a potentially useful tool for the facilitation of discrimination (Carson & Butcher, 1992).

Skinner believes that reinforcement can be arranged in a variety of ways in so-called 'schedules of reinforcement', and that all forms of behaviour – to a greater or lesser degree – are controlled by reinforcement. Skinner does not rate punishment as a reinforcer highly; on the contrary, he believes that positively reinforcing behaviour is a much more effective way of encouraging (developing) desired new behaviour. He uses the term **'shaping'** to refer to 'a process of reinforcing successive approximations to a final behavior or set of behaviors' (Barlow & Durand, 1999: 24). Skinner also bases his findings mainly on research with animals in clinical settings.

### Critical evaluation

Behaviour theories regard personality as 'nothing more than the sum total of the individual's behavior' (Gottfried & Davidson, in Phares, 1992: 85). The search is not for the deeper meaning of behaviour, but rather for identifying ways of predicting an individual's behaviour. A distinction is drawn between classical conditioning (the view that stimuli that are associated with unconditioned reinforcement start developing their own reinforcing qualities) and operant conditioning (behaviour is maintained by its consequences) (Skinner and Pavlov). In short: when behaviour is rewarded, it will continue and can be controlled, and vice versa. This epistemology places a strong emphasis on the gathering and utilisation of data, for example by means of interviews and tests. 'From such data, the patient's inner states and dispositions are inferred' (Phares, 1992: 85). Much of this approach was developed through work with animals in laboratories rather than through clinical work with humans. This approach is also often described as overly mechanistic and dehumanising. Critics frequently express the fear that behavioural therapies may simply amount to symptom replacement.

## SOCIAL LEARNING THEORIES

Social learning theories share the view that learning that takes place in a social context explains behaviour (Dollard (1900–1980), Miller (1909–), Rotter (1916–) and Bandura (1925–)). Bandura's (cognitive) social learning theory implies that all behaviour, to a greater or a lesser extent, is the result of imitating or modelling, that is, observing another person's behaviour leads to the copying and acquisition of that behaviour (observational learning). This learning process applies to the learning of behaviour, language, conceptual and generalisable skills (Wolff, 1992; Shaffer, 1996). Skinner, a radical behaviourist, believes that humans are not only the products of their experiences, but that they also have little or no control over determining the nature of those experiences. This implies that the notion of free will is an illusion. It is in stark contrast to the views of Bandura, who states that children are 'active, thinking human beings who contribute in many ways to their development' (in Shaffer, 1996: 57). This view implies that humans are free to choose the persons with whom they prefer to identify, who they want to imitate and, thus, to control their own future to some extent.

**Observational learning:** Imitating or modelling (observing another person's behaviour leads to the copying and acquisition of that behaviour).

### Critical evaluation

The learning perspective that humans control their own future to a certain degree represents significant progress in the field of Psychology. However, according to Nevid et al. (1997: 52), 'Social-learning theory has not derived satisfying statements about the development of personality traits or accounted for self-awareness [and] does not always pay adequate attention to genetic variation in explaining individual differences in behavior or in accounting for abnormal behavior patterns.'

**Artificial intelligence:** The computer simulation of tasks that normally require human cognitive ability.

## COGNITIVE FOUNDATIONS

Several cognitive psychologists have been influenced by information-processing approaches to the learning process. McShane (1991: 8) points out that 'communications theory ... the theory of computation ... artificial intelligence ... and linguistics', among other things, have led to the development of this theory. Case (1985) maintains that all the information-processing models take the view that, among others, information-transforming processes (the storage, processing and potential for the recall of information) occur in the field of human gnosis, and that learners have a limited ability to process information. A distinction is also made between the so-called 'working memory' (where coded information is temporarily stored so that it can be immediately recalled and used) and the 'long-term' or 'semantic memory' (where everything that individuals know, all the

**Working memory:** Where coded information is temporarily stored so that it can be immediately recalled and used.

**Long-term/ semantic memory:** Everything that individuals know, all knowledge that they have, is stored here.

knowledge that they have, is stored permanently). Cermak (1983: 599) tell us that 'the learning disabled students' slower speed of processing [is related] to the semantic content of the material, therefore leading to a diminished ability to store and retrieve information'. Cognitive distortions, or thinking errors, may distort information processing (Nevid et al., 1997). These authors (1997: 53) explain: 'People who are depressed tend to develop an unduly negative view of their personal situation by exaggerating the importance of unfortunate events they experience.'

Ellis (1913– ), who developed the **rational-emotive therapy**, stresses the fact that it is a person's idiosyncratic interpretation of events that creates anxiety, and not the events themselves. Ellis proposed the following model: A (activating events) → B (beliefs or mediating events) → C (consequence) model. Irrational beliefs often lead persons to 'catastrophise' the extent of loss, which facilitates depression and pain (Nevid et al., 1997: 54).

Beck (1921– ) focused on the way in which irrational beliefs may lead to distortions in thinking patterns. His **cognitive therapy** attempts to help people detect and remedy these errors. In practice, Beck's therapy is geared towards helping us challenge our assumptions and thinking, since this can guide us in (re-)gaining control of our emotional lives and facilitate less destructive ways for us to live (Client-centred therapy, nd: 2).

### Critical evaluation

Critics of the cognitive perspective caution that therapists may fall into the trap of impressing their own value and philosophical systems on their clients. Furthermore, it is argued that these therapists do not show appropriate concern for their clients, mostly failing to wait until clients are ready to 'listen and respond' (George & Christiani, 1990: 88).

## HUMANISTIC/PHENOMENOLOGIC/EXISTENTIAL PERSPECTIVES

From the person- or client-centred point of view, human beings are not linearly considered as measurable beings and the mere sum total of their characteristics. We are not atomised or molecularised entities, but rather distinguishable, though not separable, units (Phares, 1992). The view in this case is that we cannot be measured and understood. Emphasis is placed on the qualitative, the being, the origin, and the meaningful existence and destination of a person. Whereas the 'pure' naturalist sometimes absolutises or reduces humans as a result of heredity and environment, this approach regards hereditary traits and environmental matters as possibilities that can be realised by mental exertion. As humans

we have our own responsibility, we are free to choose and we are not subject to fate or circumstances beyond our control.

The contribution of Rogers (1902–1987), who developed **client-centred** (later known as **person-centred**) **therapy** in reaction to the psychoanalytic approach, can be summarised in the following comments by Du Toit (1986) and George and Christiani (1990):

- A person's most basic need or strive is towards self-actualisation (thus, the need to be what we can be; to function optimally).
- Self-actualisation improves when our self-concept and perceptions improve.
- A safe climate of unconditional love and acceptance improves our self-concept, and perceptions subsequently improve.
- Every human being deserves dignity and has worth, is good and trustworthy.

As humans, we control our fate; we can 'guide, regulate and control [ourselves]' (Rogers, in George & Christiani, 1990: 58). But difficulties, stumbling blocks or a stressful life have the capacity to interfere with our self-actualisation.

Maslow's (1908–1970) well-known **hierarchy of needs** begins with the physiological needs (hunger, thirst). This is followed by safety, then the need to love and to be loved (affiliation needs), the need to be appreciated and acknowledged, and, finally, the highest need is the need for self-actualisation. Maslow stresses the fact that the lower order needs have to be met before energy can be released for the higher order ones to be met. Furthermore, self-actualisation is impeded when the lower order needs are not satisfied.

**Gestalt psychology:** Emphasises the idea of mind and body as a whole, a unity.

Perls (1893–1970), founder of **Gestalt therapy**, is influenced by scholars such as Lewin (1890–1947) and Smuts (1870–1950) (particularly by the latter's views of holism). In Perls' opinion, a human being is a unity, in unison with her environment, an integrated organism that always functions as a whole. Suggesting that humans are made up of separate elements potentially allows for the overemphasis of one human aspect to the disadvantage of another. No person can exist without her environment and she is always in contact with it. A human is fundamentally a biological being, subject to the same processes that regulate any other living organism. As such, humans have to strive continually towards creative self-actualisation, reintegrating her biological, emotional and cognitive dimensions, and guarding against stagnation in her development (Aronstam, 1995).

A basic existentialist concept is that of ***Dasein*** (being in the world, or existing). Here, the emphasis is on the individual human being as unique

and irreplaceable; a person who strives towards self-actualisation, and has the potential and right to choose and transcend his own limitations. This view is in stark contrast to the deterministic viewpoint. Most existentialists believe that the fear of death is the primary source of anxiety. According to Sue et al. (2003), existentialism is less optimistic than humanism; it focuses on irrational aspects, difficulties and humanising. While humanism pays attention to the individual's responsibility for what happens to himself in life, existentialists also stress a person's responsibility towards others.

### Critical evaluation

With its non-deterministic view and its emphasis on a person's inner world, this approach claims that her perceptions of the world constitute the main factor that influences her behaviour (Rogers). The existential view emphasises a person's individuality and unique quality, her ***Dasein***, as well as the ability to realise her full potential. The needs hierarchy proposed by Maslow again emphasises the significance and relevance of occupations with regard to the satisfaction of needs. Certain psychologists object to the term 'humanistic' as a description of the above views, stating that it suggests that other approaches perceive humans to be 'objects'. Furthermore, critics often argue that the affective approaches are 'vague' and difficult to research; that the associated therapeutic approaches work well with more intelligent and less disturbed people, but less well with those not so fortunate.

***Dasein:***
Being in the world; existing.

## THE COGNITIVE-DEVELOPMENTAL POINT OF VIEW

### Piaget's constructivist or developmental-procedural learning theory

According to Piaget, four interacting factors – biological maturation, activity, social experiences and equilibration – influence a child's changes in thinking (Piaget, 1970; Woolfolk, 1993). Piaget believes that learners systematise and plan their activities or learning actions according to cognitive structures. Learners gather content through experience and action; through seeing, feeling, hearing, smelling and touching at a particular moment in their lives. They have schemes that are always developing, changing and becoming more complex, and that constitute the building blocks of their cognitive structures. The way in which learners function during their lives remains constant. This occurs according to organisation (learners' innate tendency to coordinate structures and abilities) and adjustment (the process by which learners learn to handle their environment). By means of assimilation, certain concepts and experiences are integrated with existing concepts and experiences; certain changes in

**Equilibration:**
The process during which a child adapts, adjusts and changes his thinking configuration to restore a state of equilibrium.

learners' existing cognitive structures are brought about through accommodation (Slavin, 1994).

Equilibrium indicates that assimilation and accommodation are in a state of balance. The gradually developing state of equilibrium between assimilation and accommodation is the result of successive decentrings. This indicates that learners are able to concentrate their attention at a given point in time on a particular matter (or aspect thereof). Piaget classifies the stages of cognitive development as follows:

- **The sensorimotor stage (0–2 years):** Children learn to control and coordinate their sensorimotor activities.
- **The pre-operational stage (2–7 years):** From 2 to 4 years (when language is rapidly developing), children are in the stage of preconceptual or symbolic thinking, and from 4 to 7 years they are in the intuitive stage, in which they increasingly make use of symbols (Piaget, 1976; Copeland, 1982).
- **The concrete-operational stage (6 or 7–12 years):** Egocentrism diminishes and learners gradually become prepared for understanding reversibility, classification and the systematisation of objects (Louw, Schoeman, Van Ede & Wait, 1996). Piaget (1976) regards the lack of concrete materials in learning environments as the basis for many learners' failure in mathematics. Although he regards seven as the age at which children master the **conservation of numbers**, he warns that this indication, like all his other indications of a specific time, is relative.
- **The formal-operational stage (11 or 12 years to adulthood):** Learners in this stage are able to function on an abstract level of thinking where they no longer need to take refuge in the concrete, real world.

According to Chiappetta, McKinnon and Renner (in Gadanidis, 1994), Piaget was overoptimistic in his estimate of 11 to 12 years as the starting point of the formal-operational stage. Their (in Gadanidis, 1994) research shows that 50% of all learners of 16 years and older still function on the concrete-operational level. In conclusion, Piaget does not regard knowledge as a previously determined, unfolding inner process. He believes that knowledge and intelligence do not originate in either the learner or in the environment, but in the interaction between the two.

There are certain similarities between Piaget's work and that of the Gestalt psychologists. Piaget observes that the Gestalt psychologists work with a structured system, while he works with a **structuring** system. He does not support individualised teaching. He aptly points to learners' inherent egocentric tendency, and adds that children on the concrete-operational level are already able to assimilate various points of view and

thereby bring their assessment of concepts more into line with reality. Piaget believes that social interaction has an important purpose. A clash of opinions makes learners especially aware of other points of view with which they have to live, and in this way learners are assisted to relinquish a state of egocentricity.

### Vygotsky's cognitive learning theory

Whereas developmental learning theoreticians believe that learning is brought about by cognitive, moral and social development (defined as experience learning, learning through concrete experience and learning through social interaction), Vygotsky (1962; 1978) believes that social growth is caused mainly by social interaction. According to this view, the relationship between the role of the affect and the intellect is emphasised when simple or complicated tasks are tackled. It indicates that problem-solving is, among others, caused by the integration of personal traits such as motivation, learners' ambitions, their cognitive strategies and the extent to which they implement metacognitive processes during the solving of problems (Vygotsky, 1978).

Vygotsky (1986) does not accept that learning is subordinate to development. He also rejects the view that learning should be considered as the process of extending innate structures. Vygotsky particularly emphasises the essential influence of social learning on development, and feels that learning *directs* development, rather than follows it. His notion concerning the **zone of proximal development**, or the specific learning phase in which a learner can benefit from assistance or help, is widely accepted and respected, as are his views on scaffolding (or 'assistance that allows students to complete tasks that they are not able to complete independently' (Eggen & Kauchak, 1994: 42–43)). Furthermore, he stresses the fact that cultural meanings should be mixed with personal meanings through a good education.

**Zone of proximal development:** The specific learning phase in which a learner can benefit from assistance or help.

**Scaffolding:** Assistance that allows students to complete tasks that they are not able to complete independently.

## POSTMODERNISM, SOCIAL CONSTRUCTIONISM AND A NARRATIVE APPROACH

In essence the **postmodern framework** defies definition, yet it may be broadly described as dissatisfaction with and protest against the legacy of the modern era. Postmodern resistance should be viewed against the backdrop of modern science's claim to objectivity, rationality, universal validity and certainty (Savickas, 1993; Van Niekerk, 1996). Postmodernists believe that consideration needs to be given to the cultural relativity and diversity of knowledge, to various possible interpretations of texts and to the idea that knowledge is relative in specific contexts.

Culture and language constitute the individual's symbolic world to which meaning and sense are ascribed (Savickas, 1993; Van Niekerk, 1996). Lotter (in Maree, Bester, Lubbe & Beck, 2001) summarises aspects of postmodernism as follows:

- There is an open attitude toward different races, cultures, religions, moral convictions and sexual orientation.
- Diversity within communities is important and enriching.
- There is a blend of styles and a selective and creative combination of existing ideas (irrespective of their origin).
- Eurocentrism is strongly criticised; the accuracy of the Western perspective is questioned.

**Social constructionism** is based on knowledge as a social construct, language as a social phenomenon, and the individual as a rational person and the anthropological character of the construction. In short: humans are social beings who live in the domain of language. Inherent in every social system are values and norms that facilitate relationships and existence (Gergen, 1985; McLean, 1997). The self and the concept of 'truth' are viewed as a manifestation of human interaction, which is constructed by communication (language) and relationship systems or discourse. The latter is construed by the narrative.

Post-modern scholars such as Cochran (1997) and Savickas (1993) have done pioneering work to bring **meaning-making, narrative construction, literary narratives** and **development** to the process of career counselling. As Cochran (1997: 151) comments: 'The task of career counselling is to construct narratives a person can enact ... At stake, then, is whether or not a person's career is shaped by a personal vision of life at best.' According to Savickas (1993), career counselling in the postmodern era is characterised by a number of innovations: no more experts (the client is regarded as the sole expert on herself), clients are empowered instead of fitted in on a 'normal' curve, an attempt is made to rewrite the individual's narrative, a career is regarded as personal, and stories – instead of 'objective' scores – are stressed. Clients' interests, abilities and work ethics are interpreted as an expression of their career patterns and central life themes. As co-authors, counsellors attempt to assist their clients in narrating their careers as stories, pointing out certain themes and tensions in the story line and teaching them the necessary skills for rendering the next episode.

### Critical evaluation

According to Burman (1996: 139), discourse analysis has 'saved psychology from the brutality of experimental methods'. From this

perspective, individuals are treated as meaning-making persons, instead of being objectified and pictured as points on a so-called 'normal curve'. Discourse analysis has added significantly to the array of qualitative methods, and the analysis of 'problem-saturated narratives' (White & Epston, in Becvar & Becvar, 1996: 284) has become an integrated research strategy. In essence, postmodernism has significantly contributed to the discovery of patterns of meaning in psychological research.

## FOUNDATIONS OF FAMILY SYSTEMS APPROACHES

Becvar and Becvar (1996: 15) suggest that 'the seeds of the family therapy movement were sown by a disparate group of researchers and theorists from a variety of disciplines who were early explorers in the realm of cybernetics'. **Systems theory** stresses the relative complexity of the interdependence of phenomena that are viewed as groupings of systems of inter-reacting elements. It is important to note that every system represents an element of a larger system (Rademeyer, 1995). In the same way, a family can be defined as a self-regulating system in which members have an effect on one another's behaviour. The behaviour of the individual can thus be seen as the result of an intricate process of interaction that takes place within the family. Furthermore, family systems consistently attempt to maintain themselves. In terms of therapy, this means that the therapist will have to adapt to a system before attempting to change it (Rademeyer, 1995).

According to Becvar and Becvar (1996: 9), 'In the world of systems theory, linear causality does not exist. Instead we find an emphasis on reciprocity, recursion and shared responsibility. A and B exist in the context of a relationship in which each influences the other and both are equally cause and effect of each other's behaviour.' If we want to understand the characteristics of any relationship, we should not ask *why* something has happened, but rather *what* has happened. Reality is internal, not external; it is constructed by participants; personal perceptions are brought into the relationship; the emphasis should be on the present, a description of patterns of reciprocal influence and the holistic perspective, and the focus should be on the processes or context (Becvar & Becvar, 1996).

### Critical evaluation

Critics often argue that the term 'family therapy' should be replaced by 'relationship therapy', and that the term 'family' should be extended to include different versions of a family (e.g. the extended family, the single person, couples) (Becvar & Becvar, 1996).

## EDUCATIONAL PSYCHOLOGICAL PERSPECTIVE ON SOME PSYCHOLOGICAL THEORIES

The behavioural learning approach concentrates primarily on the study of outwardly observable behaviour. It emphasises the value of repetition and (rapid and applicable) reinforcement of acceptable responses, of the formation of a series of applicable and correct associations, and of the functional practising of basic knowledge. A learner is regarded as an empty vessel: a *tabula rasa*. Errors and misconceptions are regarded as erroneous conceptions as in a computer system: if information is undesirable, it can simply be deleted or typed over.

A strict behaviouristic point of departure assumes, *inter alia*, that humans learn that which they are taught (or at least part thereof). It is assumed that knowledge can be transferred intact from one person to another – a view that is not accepted straight away in this study. Here, the view is that persons can and should generate their own knowledge structures; also, that optimal learning occurs through self-discovery, self-work, problem-centring (a problem-solving mindedness) and social interaction, in conjunction with other factors such as a willingness to study hard, a realisation of the value of practice and motivation, and the creation of optimal learning conditions by facilitators.

Critics find the information-processing model excessively mechanical. Small (1990) maintains that the model is overly dependent on the view that the human brain is a complicated cognitive system that can be compared with a digital computer. Meyer and Van Ede (1996) point out that information-processing theoreticians are not able to indicate what changes take place during information-processing. Furthermore, the model does not make adequate provision for responsible decision-making, critical thinking or the ability to think creatively, which are especially necessary if learners want to meet the challenges of the 21st century with confidence. Terms such as 'artificial intelligence' (defined by Plug, Meyer, Louw and Gouws (1993) as the computer simulation of tasks that normally require human cognitive ability), 'sensory register', 'short-term memory', 'long-term memory', 'central processing' and 'response system' all constitute the language of the computer.

## CONCLUSION

The various approaches we have explored are empirically not easily comparable for the simple reason that, to a greater or lesser extent, they strive to achieve various aims, and their points of departure are found in various learning-theoretical and philosophical points of view. The issue is

that various approaches to the explanation of human behaviour can only empirically significantly be compared with one another if they strive for similar aims. In such a case it would perhaps be possible to construct suitable tests to evaluate the extent to which the set aims have been realised, and in this way come to a conclusion about which one is 'the best'. However, in cases where aims are widely divergent, such a comparison is simply not possible. It would involve a theory evaluation and comparison of the respective aims, and would be influenced subjectively by the researcher's own theoretical points of view. By contrast, it is both possible *and* useful to do research on whether (and to what extent) the proposed aims of both approaches are attainable.

A conclusive theory on the explanation of human behaviour has not yet been formulated and probably will not be. But the serious researcher can make use of one or more of the existing theories. For Hall and Lindsay (in Maas, 1980) a theory is not an aim in itself; what is of importance is its utilitarian value in terms of how effectively the particular theory or theories can put into operation representations that can be verified with regard to related occurrences. In other words, there is always a continuous search in progress for theories that can serve as a frame of reference in the case of specific problems.

Finally, Maslow's (1970: 254) words are an apt conclusion: 'Let people realize clearly that every time they threaten someone or humiliate or hurt unnecessarily or dominate or reject another human being, they become forces for the creation of psychopathology, even if these be small factors. Let them recognize also that every man who is kind, helpful, decent, psychologically democratic, affectionate and warm is a psychotherapeutic force, even though a small one.'

## SELF-ASSESSMENT

To test your knowledge of this chapter, consider the following questions:

1 Provide a brief overview of 20th and 21st century attempts to explain human behaviour.
2 What is the psychodynamic approach to explaining human behaviour?
3 Why would you pledge allegiance to one specific or certain psychological theories in your private practice?
4 What are some points of critique with regard to the psychological theories we have discussed?
5 What measures must be taken into account when evaluating the relative significance of psychological theories?
6 What is the educational psychological point of view of psychological theories?

## VOICES

During my initial training as a psychologist, there wasn't enough time to master all the main theories satisfactorily ... As a practitioner, again, there rarely is time to brush up on one's knowledge or to keep abreast of new developments. This chapter has provided me with a pocket-size psychological road map ... The narrative and socio-constructionism approaches especially appeal to me, since I am not familiar with them. Reading about these and other theories has alerted me to the fact that I will have to keep an 'open mind' in my practice. Incidentally, in my heart, I am a Freudian ... but this chapter has shown me again that one never uses one specific approach during any type of intervention. Lastly, it is clear to me that my superiors do not understand the role and function of psychologists ... and they do not fully appreciate the possible contribution of the educational psychologist in an educational setting.

– Lindiwe, educational psychologist and headmistress of a school, attending a CPD workshop

I love the idea that teachers and psychologists should try to understand learners instead of jumping too quickly to conclusions. Too often, children don't understand their teachers, their parents, the world ... not even themselves. From what you have explained to me, it seems as if, indeed, there are more than two sides to a story! Shouldn't this type of work be included in our curricula and be explained to our parents as well? After all, one often reads a lot about psychology in magazines; on TV and in movies you watch programmes and films in which psychological principles make up a crucial part of the plot ... it's not as if this is secret stuff! The humanist approach specifically appeals to me ... but then, so does the psychodynamic approach, an the idea that one has the right to be critical ... as in other learning areas.

– Marina, a 17 year-old learner in Grade 11

## APPLICATION STRATEGIES

The strategies are as follows:

- Be aware that learners enter your classroom or practice with different worldviews and frames of reference.
- Keep in mind that children react differently to similar experiences. What makes one sad could give rise to aggression in another.
- It is often said that to understand is to forgive. Understanding the reasons behind (problem) behaviour is crucially important before planning intervention.
- Let us be aware that we, as educators or educational psychologists, enter the classroom with our own unfinished business and baggage. It is essential to network and to discuss our own problems and 'practice' with colleagues, sometimes even with psychologists. Remember – someone has to care for the caregiver!

- It does not make sense to enter lengthy debates about who is 'right' and who is 'wrong', about what is more important: nurture or nature, whose theory is 'better': Freud or Rogers. Phares' (1992: 64) remark – 'ultimate allegiance should be not to a theory, but to the very best [appropriate] ways of describing clients [our learners] and intervening on their behalf' – is as valid today as it was in the past.
- As educators and educational psychologists, let us not accept everything at face value, without questioning the potential value and applicability thereof. By that same token, let us always allow our learners to be critical, and give them the opportunity to voice their criticism in an acceptable way.
- Our learners are the sole authors of their life stories. Let us respect *their* right to write these, recognising *our* right to play a constructive part in the choreography of their life plots.
- A holistic approach to child development is essential of we desire optimal ways of intervening with clients.

## THE REFLECTIVE TEACHER/EDUCATOR/PROFESSIONAL

To test your knowledge of this chapter, consider the following questions:

1 In which ways will my attitude and approach towards my learners/clients be different having read this chapter?
2 How will my own worldview be affected by what I have read?
3 How will reading the chapter impact on my own life?
4 What will I do in class/my practice to implement what I have read?
5 In which ways will I attempt to influence parents in the same way that reading the chapter has influenced me?
6 Has reading the chapter stimulated my desire to further my own studies, to enrich my own life and to accept the idea of lifelong learning?

## TEN FACTS ABOUT THEORETICAL APPROACHES IN PSYCHOLOGY

1 Our training and allegiance to certain theoretical approaches will have a major influence on the way in which we attempt to help others.
2 Regardless of our theoretical stance, allegiance should never be to a certain theory or theoretical approach, but to the ideal of administering therapy that is in a client's best interests (Phares, 1992).
3 Personality theories have two broad functions. First, they help us to explain how people make choices and to understand the difference in those choices. Second, they help us facilitate the making of a choice by a client (Phares, 1992).
4 Psychodynamic theories emphasise our subconscious motives and past experiences (Freud), the interpersonal aspects of behaviour (Sullivan), our striving for superiority (Adler), and our ability to overcome adversity and conquer our world (Erikson).

5 Behaviour theories regard personality as 'nothing more than the sum total of the individual's behavior' (Gottfried & Davidson, in Phares, 1992: 85).
6 Cognitive theorists are often accused of falling into the trap of impressing their own value and philosophical systems on their clients, failing to wait until clients are ready to 'listen and respond' (George & Christiani, 1990: 8).
7 The existential view emphasises a person's individuality and uniqueness, as well as the ability to realise her full potential.
8 The cognitive-developmental point of view (as per Piaget and Vygotsky) holds that social growth is facilitated mainly by social interaction.
9 In a narrative approach, as co-authors, counsellors attempt to assist their clients in narrating their careers as stories, pointing out certain themes and tensions in the story line and facilitating the necessary skills for rendering the next episode.
10 Family systems theory suggests that the behaviour of any individual can be seen as the result of an intricate process of interaction that takes place within the family.

## SUGGESTED READINGS

Phares, EJ (1992). *Clinical psychology: Concepts, methods and profession.* Pacific Grove, California: Brooks/Cole.

The author offers a comprehensive overview of the foundations of Psychology. He examines the role of psychology and reviews theories, research, approaches to adjustment and deviance, clinical assessment and intervention, and specialties in Psychology. Although the emphasis is on Clinical Psychology, the text is nevertheless relevant to Educational Psychology, since it offers generic, encompassing guidelines and is as valuable to educational psychologists and educators as it is to other professionals. He emphasises the crucial role of theory and research in real-life settings, and offers invaluable hints to practitioners. He believes in theoretical eclecticism and suggests that comprehensive information about human development can be gained from systematic research. Moreover, he emphasis the view of human development as a 'holistic' process.

Shaffer, DR (1996). *Developmental psychology: Childhood and adolescence* 4th edition. New York: Brooks/Cole.

The author offers a comprehensive overview of child and adolescent development. He shows that theory and research can be applied in classroom and practice settings and offers many useful hints to practitioners. He makes it clear that he believes in theoretical eclecticism, that the best information about human development comes from systematic research, that he favours a process and contextual orientation, and that he views human development as a 'holistic' process.

Sue, D; Sue, DW and Sue, S (2003). *Understanding abnormal behaviour.* New York: Houghton Mifflin.

The authors offer a comprehensive overview of Abnormal Psychology as both a scientific and a clinical endeavour. Students are given the opportunity of exploring topics in a thorough and responsible way. The authors draw on notable contributions from a number of inter-related disciplines and theoretical approaches and special attention is paid to gender and cultural issues and phenomena. By providing case vignettes and clients' descriptions of their experiences to both enhance and illustrate the text, the authors succeed in offering an extremely valuable addition to the field of Psychology. The authors' realisation that mental disturbance impacts on all human beings, that their relationships with significant others are influenced directly by these disorders and that there are various ways in which to deal with problem behaviour has prompted the authors to take an eclectic, multicultural approach to the field of Psychology.

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# Index

Note: Page references in bold refer to definitions of key words.