**TEACHING STRATEGIES TO**

**PROMOTE CRITICAL THINKING**

**INTRODUCTION**

Traditionally students are taught to accept the instruction and not to question. The student

becomes a habitual receiver of that information and is not taught to question and find the

fault in what is offered as knowledge. This poorly prepares students for the real life

situation of competing advocacies, offering their own perspectives and asking the people

to wisely choose between them. Thus, in life they may find it hard to do what they are

rarely trained to do in school. According to Vygotsky (1978) , students are capable of

performing at higher intellectual levels when asked to work in collaborative situations

than when asked to work individually. Group diversity in terms of knowledge and

experience contributes positively to the learning process. Bruner (1985) contends that

cooperative learning methods improve problem- solving strategies because the students

are confronted with different interpretations of the given situation. The peer support

system makes it possible for the learner to internalize both external knowledge and

critical thinking skills and to convert them into tools for intellectual functioning. Thus

this unit prepares prospective teachers to make students more critical than mere receivers

of the information.

**LEARNING OUTCOMES**

After the completion of this unit it is expected that your will be able to:

1. identify the difference occurring in classroom teaching during 21st century

especially cooperative teaching and learning strategies.

2. plan and organize some critical thinking pedagogies and activities

3. practice classroom assessment for continuous feedback and reflection

**3.1 TEACHING AND LEARNING IN 21ST CENTURY**

Our older techniques of education and social organization may have been satisfactory in

the past, but the demands of education at present are quite different. Many important

changes in the intellectual landscape of our planet took place in the 20th century, and

they are all making their mark in the 21st Century. These developments are already

known to us; these include and are not limited to the following:

1. There is more information available for learners now than ever before. The increase

in information will continue to increase, this means that we need to know how to

search and then how to analyze information as much and we do not really need to

memorize the information itself.

2. The pace of social change continues to increase. Our lives are so much different

than our grandparents; our parents and our children will live in a very different

world. We need to learn more than useful patterns; we need to know how to adapt

and how to refuse to adapt.

3. The universe is becoming a connected whole more than ever before. What happens

in USA influences China, what happens in Brazil influences India. Economies and

technological resources are increasingly connected. As with any large and complex

system, it is now challenging to understand how it operates.

4. Our mass media showers down on us with its so called “expert” discourse. We have

been in a habit of more and more rely on selected talking heads to do our thinking for

us. Of course, such “experts” have their own points of view and their own master

minds, yet the time is requiring us to judge them more closely than ever.

5. We are surrounded by weak arguments promoted with considerably wider range of

resources. We become vulnerable to the weak arguments around us through utter

repetition and no solid evidence being provided, hence a deeper critical analysis of

such discourse becomes inevitable.

6. The old “banking” model is insufficient. According to this model we used to view

students as a bank account into which the instructor deposits knowledge. The data

is a thing or an artifact, and once the student has it, they were then labeled as

educated. Given the magnitude of current knowledge that seems impossible as well

as ineffective. Paolo Freire in his work The Pedagogy of the Oppressed has focused

on this. Students need to learn how to manipulate and process data more than just

check to see how full their knowledge bank is. Let’s explore some of the

methodologies found most useful in this era.

**3.2 COOPERATIVE TEACHING AND LEARNING STRATEGIES**

Cooperative teaching and learning has been a popular area in educational circles for more

than a decade. This area gained its strength with the emergence of two major schools of

thought one is “Constructivism” and the other is “Connectivism”. Researchers and

practitioners have found that students working in small cooperative groups can develop

the type of intellectual exchange that fosters critical and creative thinking, and productive

problem solving. Cooperative teaching is a successful strategy in which small teams, each

with students of different ability levels are made. They use a variety of learning activities

to improve their understanding of a subject. By using this method, the teachers and

students feel that they are an important member of the class. Cooperative teaching and

learning is an approach to group work that minimizes the occurrence of unpleasant

experiences and maximizes the learning with a sense of achievement and satisfaction that

result from working with a high-performance team.

Students have always congregated together to perform and learn. But there is a growing

recognition that combined with whole group instruction and individual learning,

cooperative learning should be a customary part of the classroom instruction. Student

communication makes cooperative learning meaningful. To accomplish their group’s

task, students must exchange ideas, make plans, and propose solutions. Thinking through

an idea and presenting it collectively can be very helpful and understood by others in a

better way. Such interaction promotes intellectual growth. The exchange of different

ideas and viewpoints can enhance the growth and inspire broader thinking. It is the

teacher’s job to persuade such exchanges and organize the students’ work so their

communication is on-task and creative. In addition to academic growth, cooperative

learning helps in students’ social development.

Students’ lives are full of interactions with friends and family members and their futures

will find them in jobs that require cooperation. The skills that are essential for productive

group work in the classroom are relevant for today and the future. Cooperative learning is

a successful teaching strategy in which small groups, with students of different ability

levels, use a variety of learning activities to improve their understanding. Each member

of a team feels responsible for learning what is being taught and also for helping group

fellows thus creating an atmosphere of achievement.

 Cooperative classroom activities result in students striving for mutual uplift so that all

group members:

• benefit from each other's efforts.

• recognize that all group members share a common goal.

• realize that one's performance is mutually caused by oneself and one's team

members.

• jointly celebrate when a group member is recognized for achievement.

Relative to students taught individually; cooperatively taught students tend to show

higher academic achievement, greater determination, better high-level reasoning lower

anxiety and stress, greater intrinsic motivation, greater ability to view situations from

others’ perspectives, more positive attitudes toward subject areas, and higher critical

thinking skills,.

**3.2.1 Concept of Cooperative Learning**

Several definitions of cooperative learning have been given by various theorists. The one

most widely used in higher education is probably that of David and Roger Johnson of the

University of Minnesota. According to the which, cooperative learning is a process that

involves students working in teams to accomplish a common goal, under conditions that

include the following elements:

. Positive interdependence. Team members are obliged to rely on one another to

achieve the goal. If any team members fail to do their part, everyone suffers

consequences.

. Individual accountability. All students in a group are held accountable for doing

their share of the work and for mastery of all of the material to be learned.

. Face-to-face promotive interaction. Although some of the group work may be

parceled out and done individually, some must be done interactively, with group

members providing one another with feedback, challenging reasoning and

conclusions, and perhaps most importantly, teaching and encouraging one another.

. Appropriate use of collaborative skills. Students are encouraged and helped to

develop and practice trust-building, communication, and conflict management

skills.

. Group processing. Team members set group tasks, periodically assess what they

are doing well as a team, and identify changes they will make to function more

effectively in the future.

Cooperative learning is dependent on the sort of conversation, which takes place in the

group between students. Talking about a question helps create meaning and

understanding; humans make meaning about things through talk. Studies have shown that

by having to explain answers to problems to fellow student that the act of having to

clarify and communicate actually enhances the students’ own understanding. In these

conversations it is the process of discussion that is important not whether the answers are

right or wrong. Applications of social learning to the classroom first began in the early

1970s. Since that time, what we now know as ‘Cooperative Learning’ has been one of the

most researched kinds of instructional methodology used in the classroom. Much of this

research has concluded that cooperative learning strategies in the classroom have been

highly successful, both in terms of learning achievement as well as the development

morals and values. The prospect of cooperative learning is obvious to many researchers.

Its academic and social advantages are globally recognized. George (2000) defines

cooperative learning as the process of obtaining knowledge in a socially rich environment

by one or two small groups of students. Cooperative learning environment refers to a

situation which learners with one common goal in their mind strive to achieve common

learning outcomes. A small dedicated group of students learn together and take

advantages of each other’s proficiency to achieve a common goal. In a cooperative

learning environment, learners are encouraged to be in the center of learning and learn

together. Research has shown that cooperative learning techniques:

. promote student learning and academic achievement

. increase student retention

. enhance student satisfaction with their learning experience

. help students develop communication skills

. develop students' social skills

. promote student self-esteem

. help to promote critical thinking

Social benefits of cooperative learning are more clearly demonstrated in the research

literature. Cooperative learning has shown to positively affect students' self esteem and

attitudes towards school and classmates. It has been suggested that an improvement in

students' positive behavior will in turn increase motivation for academic achievement.

Classrooms are very social places but often when teachers think about learning the focus

is on individual learning and the social aspects are often viewed as a distraction. If the

teachers are able to make positive use of this social aspect and the social arrangement of

the classroom then more learning would take place. Cooperative Learning improves

students' communication skills and enhances their ability to be successful in the world of

work and to live in diverse society.

**3.2.2 The purpose of cooperative learning**

There are basically four main reasons why Cooperative Learning is to be recommended.

**1. Active learning**

 Co-operative Learning helps to actively engage more children in learning than do

teacher centered or lecture-oriented methodologies. By using more cooperative

methodologies in which students work together in groups, all students are actively

engaged on a learning task. Students become more active participants in their own

learning as well in fellows’ learning, as opposed to passive recipients of

knowledge.

**2. Children learn to help and support**

 Co-operative Learning encourages students to support their classmates in a group

rather than to compete against each other. In this way, students can combine their skills

and talents and help others. Co-operative Learning provides the opportunity for higher-

achieving students to help students who are slower learners. The help of these students

also increases the amount of explanation that occurs in the classroom overall.

**3. Interaction brings multiple dimensions**

 Working in groups students can bring multidimensional thoughts and discussions

over a single subject. Such rich discussion and generation of knowledge is rarely

possible when each learner works in isolation. Cooperative learning enables them

to ask questions from each other and bring out what a teacher might not be able to

even by asking random questions from a few members of class.

**4. Improved critical thinking**

 In a cooperative classroom where multiple and even opposite view points are

received openly, the learners learn to discuss and raise questions. They do not

simply learn or memorize the concepts rather they work together to understand,

explore and reach a consensus or at least bring all thoughts on one page. This asks

for deeper and critical analysis of the subject.

**Major Outcomes of Cooperative Learning**

**Learning**

. increased academic learning

. increased critical thinking ability

. more time spent on learning tasks (less day dreaming)

. increased student retention

. increased student motivation to learn

. enhanced student satisfaction with their learning experience

**Social Development**

. reduces disruptive behaviour

. develops peer relationships

. promote student self-esteem

. students use appropriate social skills

. improved attitude towards school

 **Communication**

. students learn to share information

. helps students to consider other people's point of view

. helps students develop skills in oral communication

**3.2.3 Models of Cooperative Learning**

Many teachers perceive that efforts to set up cooperative learning groups have a variety

of problems that range from student resistance to inappropriate assignments. It is useful

to learn how different classroom researchers helped to try a model that could provide

organization and guidance. The models listed below are only a few of many. These can

be adapted in many ways or a new model can be developed depending on the

requirements of the classroom.

**a. The Jigsaw Model:** In this model the student becomes a member of both a learning

group and a research team. After determining the learning group’s goal, the

members join research teams to learn about a particular piece of the learning

puzzle. Each puzzle piece must be solved to form a complete picture. Research can

take many forms. The teacher may want to prepare “expert sheets” that outline

readings and questions to obtain the information needed. Or the students can use

their own strategies to glean information through library research, interviewing

experts, or experimentation. Upon completion of the expert teams’ work, the

members return to their original learning groups and share the results. Class

discussion, a question-and-answer session, or a graphic or dramatic production will

allow the groups to share their findings with the class at large.

**b. Group Investigation is more student directed in its approach.** After the teacher

presents an introduction to the unit, the students discuss what they have learned and

outline possible topics for further examination. From this list of student-generated

topics, each learning group chooses one and determines subtopics for each group

member or team. Each student or group of students is responsible for researching

his or her individual piece and preparing a brief report to bring back to the group.

The group then designs a presentation and shares its findings with the entire class.

Allow time for discussion at the end of the presentation. A class evaluation for each

presentation can be an effective way of providing feedback to the groups.

**c. Numbered Heads Together** is a way of reviewing information that has been

previously presented through direct instruction or text. Numerous simple models

enhance questioning, discussion, and class presentations by structuring the activity

in a cooperative format. This model works well with unambiguous questions that

allow students to come to consensus. Divide the students into groups of 4 and have

them number off from 1 to 4. After the teacher asks the question, the groups huddle

to determine the answer. The teacher calls a number and the students with that

number respond. The teacher then has the others agree or disagree with a thumbs

up or thumbs down.

**d. Think-Pair-Share** To encourage responses from all students. Students pair with a

partner to share their responses to a question. Students are then invited to share

their responses with the whole class. There are a variety of ways to share, including

Stand Up and Share-everyone stands up and as each student responds he or she sits

down. Anyone with a similar response also sits down. Continue until everyone is

seated. Or do a “quick whip” through the class in which students respond quickly

one right after another.

**3.2.4 Role of the teacher in cooperative learning**

A cooperative learning classroom brings additional responsibilities to the teachers and the

role of teacher is enriched even more. The role of teacher includes but is not limited to

. Specify academic objectives

. Specify collaborative skills

. Decide on group size

. Assign students to groups

. Arrange the room

. Plan materials

. Assign roles to students (reader, recorder, calculator, checker, reporter, materials

handler etc.)

. Explain the task (explain procedures, give examples, asks questions to check task is

understood by all)

. Test and question individual children (to promote individual accountability)

. Promote inter group co-operation (have groups check with each other and help each

other)

. Monitor students' behaviour (while students are working, circulate to see whether

they understand the assignment and the material, give immediate feedback)

. Praise good use of group skills

. Provide assistance on understanding a task

. Provide assistance on how the group can work together more effectively

. Reflect regularly to improve cooperative learning and teaching strategies

**ACTIVITY I**

Develop a set of instructions for group activity in class 8 for one topic selected from the

syllabus of Social Studies

Elaborate which model are you using for cooperative learning and how do you think it

will help students to develop critical thinking?

**3.3 DISCUSSION AND DEBATE**

Students learn more successfully by actively analyzing, discussing, and applying content

in meaningful ways rather than by passively gripping information therefore, students

benefit when instructors utilize instructional strategies that promote active engagement.

Bonwell and Eison define active learning as “anything that involves students doing things

and thinking about the things they are doing”. Meyers and Jones (1993) define active

learning as anything that “provides opportunities for students to talk and listen, read,

write”. To enhance the critical thinking of the students the teachers may adopt the

techniques of debate and discussion.

Dialogue in a classroom is of two major kinds i.e. discussion and debate. Critical

dialogue and discourse is a formal discussion of subjects and method of formally

presenting an argument in a structured manner. Logical consistency, factual accuracy and

some degree of emotional appeal to the audience are elements in debating, where one

side often prevails over the other party by presenting a superior "context" and/or

framework of the issue. The outcome of a critical debate may depend upon consensus or

some formal way of reaching a resolution, rather than the objective facts. In formal

debating contest, there are rules for participants to discuss and share differences, within a

framework defining how they will interact. Informal dialogue discourse is relatively

common. The quality and depth of a debate improves with the knowledge and skills of its

participants as debaters.

Schools should teach students how to learn and how to think critically through debate.

Instead, our government indoctrination facilities teach students what to think, the

students’ minds should be given the liberty to think and discuss. Most of what was

learned in one way communication of classrooms is immediately forgotten after the

exam. If we only make them listen and watch passively the students are being made just

another brick in the wall instead of teaching them how to construct their own of

knowledge. When they receive conflicting information they are unable to sort through it,

but instead make emotional decisions on what to believe based on their group identity or

trusted influential figures.

The foundation for education must be dialogue, debate and discussion. True learning

takes place only through critical discourse. If you cannot articulate an idea, and defend it

rationally, then your mind will always be a slave to someone else or a slave to your own

shifting impulses.

**3.3.1 An Important Educational Experiences**

Discussion and debate provides the potential for independent, dynamic and free thought

and dialogue. Debate cannot easily be controlled, and its process asks for active thinking.

Classrooms are highly important places to teach students intellectual survival skills. By

using debate as an educational and/or classroom technique is valuable in addressing these

issues and how citizens deal with them. Debate teaches content as well as process and

requires information acquisition and management. Different aspects of an issue must be

investigated and understood by the debater. Debaters learn how to gather information and

marshal that knowledge for their purposes. The process of debating is dynamic, fluid, and

changing. Every day brings new ideas and new arguments. Every opponent uses some

arguments that are expected and some that are not. Debaters also learn to compete against

others in the realm of ideas while cooperating with team and class members in their

efforts. Debaters learn to cooperate in order to compete. Debaters must critically analyze

and deconstruct ideas presented by their opponents in preparation for doing the same

thing for the rest of their lives in all of their information transactions.

Debating inherently involves a number of essential processes:

1. State your case. Any essay will do this, of course.

2. Clash with a critique the arguments of the other. This is rarely done in modern

media, and even more rarely in schools.

3. Defend your own arguments from the critique of opponents. Media time allocation

does not allow this, nor are there many teachers who are willing to defend their

arguments against critical analysis.

4. Develop a perspective on all issues that enables a decision about the question at

hand. The discussion needs to be packaged for a decision by an audience, which

rarely happens today in politics or in education.

The process of debate offers thoughtful and long-lasting learning for individuals, for

societies and for the global community as a whole. Once students have learned how to

debate, they are better able to critically examine the pronouncements of their political

representatives and to make informed judgments about crucial issues. By encouraging

participants of a debate to look carefully at the root causes and implications of

controversies, and by teaching students that experts often have their own interests in mind

when they produce facts and norms, debate can create a powerful resistance to many

problems that seem to engulf us today. Most importantly debate teaches a method of

critical questioning and learning that can help anyone who seeks out new interpretations.

Debates encourage students not only to debate about content but also about the

frameworks of problems and how to solve them. Debate heightens mental alertness by

teaching students to quickly process and articulate ideas. Thinking on their feet, debaters

are required to hear an idea and then provide a response. This pressure-laden scenario

enhances the educational outcomes and spontaneity of debates.

 **3.3.2 The Benefits of Debate**

The individual skills learned through debate have a broader impact on society as well.

Debate can help fledgling democracies heal from the wounds inflicted by oppressive

dictatorships and ethnic violence by providing a forum where these volatile issues can be

openly discussed. Newly enfranchised citizens engaged in such debates learn first-hand

how democracy works. Additionally, because it teaches the principles of tolerance,

nonviolence and respect for different points of view, debate can close the gap between

minority and majority cultures, and other groups divided by long-standing animosities.

Debate is as a way to foster international understanding, cooperation, and a free and

lively exchange of ideas. The core of competitive debate is to examine every side of

important and controversial issues in an atmosphere of reasoned argument and respectful

discourse. The enormous effort that students put forth to succeed in this intellectually

exciting activity is truly inspiring. They devote a huge number of hours to research,

discussion, case writing, and practicing for competitions. They spend countless evenings

and weekends at tournaments competing for their schools and teammates.

The benefits they accrue as a result of all their hard work are numerous. Here are just a few:

1. Debate participation promotes problem solving and innovative thinking, and helps

students to build links between words and ideas that make concepts more

meaningful.

2. Debate students are taught to synthesize wide bodies of complex information, and

to exercise creativity and implement different ways of knowing.

3. Learning to think well has far reaching effects into every aspect of a student’s life.

Academic Skills Many studies show marked improvement in a wide variety of

academic skills as a result of participation in competitive debate. Debate students

excel in written and oral communication, and greatly improve their reading

comprehension.

4. Students become comfortable with new concepts and unfamiliar language, and gain

access to a wide array of new information such as college-level philosophy, history,

public policy and current events.

5. Debaters become self-directed learners, allowing them to take control of their

education experience and continue to learn throughout their lives.

6. Competitive debate is a particularly affective vehicle for gifted and talented

education.

7. Mental and emotional maturity is a unique outcome. Debate requires students to

engage serious subject matter in a mature and professional environment. Debate

students show more maturity in the face of adversity and tend to develop stronger

relationships with peers and mentors than the average student.

8. Debate teaches students to recognize how others think, which improves their ability

to understand others views and resolve conflicts.

9. This makes debate one of the most successful vehicles for providing affective

education to at-risk students.

10. Ultimately, debate increases students’ self-confidence by helping to teach them the

skills necessary to become competent adults.

Finally, this can be inferred from various researches that debate students tend to have

high levels of civic engagement. Students themselves feel that participation in

competitive debate is a rewarding aspect of their school career. If one asks most

instructors what their primary goal during a classroom discussion is, the answer shall be

that students talking and keep them talking until they get to cover all dimensions of the

topic under discussion. For any instructor such classroom strategies can be a useful way

to break through the stubborn silence of tired, nervous, or unprepared students. However,

it can happen so that students can talk for hours without learning anything of substance.

Truly successful classroom discussions are guided by specific teaching goals. Each

teaching goal will suggest different strategies for guiding a classroom discussion and this

is to be determined by the teacher.

The benefits of using in-class debates as an instructional strategy also include mastery of

the content and the development of critical thinking skills, empathy, and oral

communication skills. Debate as an instructional strategy, however, has its opponents.

Some believe debates reinforce a bias toward dualism, foster a confrontational

environment that does not suit certain students, or merely reinforce a student’s existing

beliefs. A variety of debate formats are described which address these criticisms

including meeting-house, four-corner, fishbowl, think-pair-share, and role-play debates.

Finally, issues related to the assessment of in-class debates are addressed such as whether

the students are assessed individually or as a team, what aspects of the debate are

assessed, and whether the instructor and/or students will do the assessment

**3.3.3 Planning The Dialogue**

**Establish goals for the discussion:**

. Determine goals based on an assessment of what material students already

understand and the areas that they need to explore.

. Decide what is to be learned by the students to learn from the discussion.

. Do they need to apply newly learned concepts, over novel subject matter, learn to

analyze arguments critically, or hear each other’s points of view?

These goals do not look mutually exclusive but they require different types of planning

and instruction on teachers’ part and different responses on the part of the students.

**Communicate clear expectations to students:**

. Hand out study questions before discussion, so students can think about concepts or

respond in writing.

. Tell students what is expected from the discussions to be accomplish.

. Talk to them individually or in groups, as per need of the class.

**Clarify and summarize key points during the discussion:**

. Many instructors write notes and provide these to students to assist them in keeping

the discussion on track and they sometimes require to moderate and intervene

during the discussion too.

. Some instructors prefer to leave enough time for their supplementary comments at

the end of the discussion.

. A brief summary that highlights the main points of the discussion should always be

prepared at the end.

**Developing a questioning strategy**

Deciding on the key questions that are to be addressed, can help ensure that discussion

stays on track and the learning goals set for the students are met. One three-step approach

to developing questions is:

. Ask recall and comprehension questions to make sure that the students have basic

knowledge.

. Ask questions requiring students to explain relationships among the units of

information and to form general concepts.

. Ask questions that require students to apply concepts and principles they have

developed to new and different situations.

**Choreographing group dynamics**

. Since discussions and debates depend upon students’ willingness to talk to each

other, it is very important to create a communicative classroom atmosphere in

which students feel secure in offering their opinions for public scrutiny.

. From the very beginning encourage students to learn each other’s names and to

respond to each other’s comments.

. A question-answer session is a dialogue; a discussion is a community activity.

Asking for three reasons makes students feel that the teacher is fishing for pre-

conceived answers, and they will respond accordingly.

. Asking one question and getting an answer, then asking a second question of a

second student and getting an answer is like playing in a ground. Turn this into

“volleyball” that will involve as many students as possible and have a discussion.

**Involving the whole class**

. Direct the questions to the entire class rather than to one individual and be willing

to wait for an answer. Wait at least 30 seconds before repeating or changing the

question. This gives students time to think and shows them that the teacher cares

more about their learning than about the speed of their responses.

. Some instructors ask students to take a few minutes to write down their individual

responses to a question before discussing as a whole class. This gives each student

an opportunity to think about and respond to the topic. Then, as discussion begins,

each student has at least one idea to offer and feels better prepared to respond.

. Standing at the front of the room to lead an instructional discussion often results in a

dialogue. It can be helpful to sit so that you represent only one more link in a circle.

This diminishes your role as instructor and encourages students to look at each other

rather than at you. If a circle is not possible, sit in the middle or in the back.

. If it is necessary for someone to be at the front of the room in order to record

important points of the discussion, ask a student to take this recording role.

Alternately, you can sit in the group and take notes, which you might want to use to

summarize the group’s thoughts at the end of discussion.

. If the class is large, divide it into smaller groups, each dealing with the same or

separate questions or problems. Move from group to group, giving guidance and

answering questions when needed or, if you like, remaining neutral. At the end of

the class period, reassemble the class and have the small groups report and respond

to each other.

**3.3.4 Types of In-classroom Debating Techniques**

Debating in the classroom can take many forms. Though not an all-inclusive list, the

following debate methods offer a range of opportunities to increase student understanding

and involvement with course material. This section will discuss the following types of

debate: four corner, role-play, fishbowl, think-pair-share, and meeting house.

The four corner debate

starts with a question or statement. Students are then afforded

time to personally consider the statement and their view based on the law. The four

corners of the classroom are labeled “strongly agree,” “agree,” “disagree,” and “strongly

disagree.” After personal consideration, the students move to the corner that most

represents their position on the issue. The groups in each corner of the classroom then

work together to come up with the best arguments for their position. After a specified

time for group discussion, each group presents their strongest arguments to the other

groups. This can be made in presentation form or through a more directed debate where

the professor or assigned students can moderate and direct time for each group to present

and rebut. After the debate, students are permitted to switch sides if their personal views

changed. This form of debate directly counters the argument of dualism, showing there

are more than two-sides to an issue, and often, variations of the sides.

**Role-play debates**

also help to avoid dualistic debate models by assigning students to

argue on behalf of different characters in a situation. For instance, in the issue of national

health care, students could be assigned to various roles, such as doctor, patient, a wealthy

person, a poor person, a lawyer, a judge, an insurance company, the president, and so on.

Through the debate of the issue from various points of view, the students can broaden

their understanding of the issue and its complexity.

**Fishbowl debates**

can take several different forms, but usually involve grouping chairs in

a circle pattern. Several chairs are then placed inside the circle for teams representing the

different positions of the debate. Chairs can also be added for several students

representing the audience. To bolster attention among those outside the fishbowl, an

empty chair can be added, which is free game, allowing someone from the outside to

enter the fishbowl to ask a question or make an argument.

**Think-pair-share debates**

require students to think and make notes alone about the

issue. After personal reflection is completed, pairs are formed. The pairs then work

together, comparing their notes and creating lists to support both sides of the issue. Once

complete, the pairs of two are combined with another pair. The newly formed groups of

four discuss the issue, choose a position, and edit their list down to their best arguments.

Finally, the groups of four present their position and reasons to the class.

**Meeting-house debates**

and problem-solving debates are variations of the Lincoln-

Douglas debate model. In a meeting house debate each team makes an opening argument.

The class is then given the opportunity to question each side. The professor serves as

moderator, ensuring each side gets an equal amount of time to argue. In order to

encourage more class participation and limit certain students from dominating the

questioning, the professor could assign cards to each student. After each question, the

questioner gives up one card. Once a student is out of cards, he or she cannot ask another

question until all other students run out of cards. Alternatively, if three cards are

assigned, a questioner that has two cards remaining may be limited from asking another

question until everyone else in the class has only two cards.

Problem-solving debate typically involves eight students. Four students are assigned to

each team. One student from each side presents a position based on historical and

philosophical arguments. The next two students take the position on why changes are or

are not justified. The third set of students proposes a plan that would carry-out their

position. The final two students summarize the position of their team and provide a

closing argument.

There are other pedagogical strategies that may be related to the debate, such as: forum,

meeting in open space, collaborative work, interaction, or deliberate. Each of these

strategies, using different levels of criticism, shall be related with each course and its

specific requirements. Most importantly, discussion and debate offers an opportunity for

students to move beyond the acquisition of basic knowledge in a subject matter and

progress into the types of higher order critical thinking skills.

What is important is that

students must analyze, synthesize and evaluate the knowledge they have acquired in

order to propose, oppose and make competing choices.

Students learn to apply course

material through the use of well-reasoned arguments that are capable of being understood

by not only their teacher but also their peers.

This process develops and improves oral

communication skills, as a necessity to make effective contribution to a dialogue.

ACTIVITY

Choose a topic of Discussion/Debate

Develop a set of instructions for conducting it

Try out a 20 minutes discussion/debate

Write your reflection on how it went:

 **3.4 CRITICAL QUESTION-ANSWER FORUMS**

Articles on the subject of classroom questioning often begin by invoking Socrates.

Researchers and other writers concerned with questioning techniques seem to want to

remind us that questioning has a long and venerable history as an educational strategy.

And indeed, the Socratic method of using questions and answers to challenge

assumptions, expose contradictions, and lead to new knowledge and wisdom is an

undeniably powerful teaching approach.

In addition to its long history and demonstrated effectiveness, questioning is also of

interest to researchers and practitioners because of its widespread use as a contemporary

teaching technique. Research indicates that questioning is second only to lecturing in

popularity as a teaching method and that classroom teachers spend anywhere from thirty-

five to fifty percent of their instructional time conducting questioning sessions.

A question is any sentence which has an interrogative form or function. In classroom

settings, teacher questions are defined as instructional cues or stimuli that convey to

students the content elements to be learned and directions for what they are to do and

how they are to do it.

The present review focuses on the relationship between teachers' classroom questioning

behaviors and a variety of student outcomes, including achievement, retention, and level

of student participation.

This means that certain other subtopics within the general area of questioning are

excluded from the present analysis. It does not deal, for example, with the effects of

textual questions or test questions, and it is only incidentally concerned with methods

used to impart study skills, including questioning strategies, to students. Questioning

plays a critical role in the way instructors structure the class environment, organize the

content of the course and has deep implications in the way that students assimilate the

information that is presented and discussed in class. Given that questioning can be a

tremendously effective way to teach, and recognizing that teachers are willing to engage

in the process of asking questions while instructing.

Numerous researches indicate that teachers largely have been asking the wrong questions.

The focus has been primarily on questions regarding the specific information students

possessed rather than questions to promote learning. The use of questioning skills is

essential to systematic investigation in any subject area. In such an investigation

1) one asks questions to identify the reason or reasons for the investigation

2) questions are asked to direct the search for information and to synthesize what has

been discovered

3) The conclusions resulting from investigations are evaluated via questions.

However, using questions to assist students' investigations is not a very new technique in

the schools. In the past, teachers primarily questioned students to ascertain whether or not

they were learning the book content and to see if students were paying attention in class.

Now the questions are two way and not just to strengthen the conceptual learning but also

to critique the content.

This shift in emphasis from learning solely content to learning processes enables

individuals to deal intelligently with their world and their lives. If students can analyze

their lives and the lives of people around them while in the school setting, they will know

effectively their reality when they are in everyday life situation, out of school as well.

Education today aims at the creation of a rational being. A rational being does not merely

possess an effective memory; he/she must be able to react to data. S/he must be able to

think and s/he must be active in seeking an understanding to problems.

Questions should play a central role in the learning process. Because of this, teachers

need to plan questions carefully. This doesn't mean script writing; that would negate

creative teaching. However, it does mean we need to carefully plan the arising questions

by thinking through all possible questions ahead of time; which would guide the learners

toward further investigation and a deeper understanding of the concepts being stressed. If

teachers and students utilize questions effectively, students will discover that the question

is a very valuable learning tool. It is a device through which they can organize their

thinking to achieve certain objectives. This type of knowledge creation is possible if

students are given major roles in their learning process.

**3.4.1 General Guidelines**

First of all you need to have a clear understanding of the purpose of questions. These

purposes are generally pursued in the context of classroom recitation, defined as a series of

teacher and students’ questions, each eliciting a response and sometimes multiple responses.

**Purpose**

There can be a whole range of purposes for asking and receiving questions in a class. The

following are some that emerge from analysis of the literature, including:

\* To develop interest and motivate students to become actively involved in lessons

\* To evaluate students’ preparation and check on homework or seatwork completion

\* To develop critical thinking skills and inquiring attitudes

\* To review and relate previous knowledge

\* To raise insights by exposing new relationships of facts, concepts and constructs

\* To assess achievement of instructional goals and objectives

\* To stimulate students to pursue knowledge on their own

**Principles**

Although it is essential that teachers ask questions that bring out the educational goals

they are seeking, there is more to good questioning technique than simply asking and

leading the useful questions. The principles of questioning developed by Richard L.

Loughlin provide an excellent set of guidelines for the teachers who wish to use

questioning techniques:

1. Distribute contents to class so that all, including non-volunteers, are involved.

2. Balance factual and thought-provoking questions.

3. Ask and receive both simple and exacting questions, so that the poorer students

may participate and the brighter students may be extended.

4. Encourage detailed responses and answers.

5. Stimulate critical thinking by asking tag questions: To what extent? How? Under

what circumstances? Why?

6. Avoid: "Does anyone know...?" and "Who can tell us...?"

7. Allow time for thought. Wait until five or six want to speak.

A teacher needs to be a moderator of time, exact phrasing and coherent thinking. A

question posed by a student, might need to be rephrased for clarity. Once you rephrase

then ask the student again if this is what s/he was asking or not.

**Techniques**

1. Phrasing and re-phrasing; teacher communicates the question so that all students

understand the response expectation.

2. Adaptation; teacher adapts the question being asked to fit the language and ability

level of the students.

3. Sequencing; teacher arranges the questions in a patterned order indicating a

purposeful questioning strategy without losing any question.

4. Balance; teacher asks both convergent and divergent questions and balances the

time between the two types. The teacher uses questions at an appropriate level or

levels to achieve the objectives of the lesson.

5. Participation; teacher asks and receives questions to stimulate a wide range of

student participation, encouraging responses from volunteering and non-

volunteering students, redirects initially asked questions to other students.

6. Probing; teacher probes initial student answers, and encourages students to

complete, clarify, expand or support their answers.

7. Wait Time (Think Time); teacher pauses three to five seconds after asking a

question to allow students time to think. The teacher also pauses after students’

initial responses to questions in class.

The most important aspect of the last technique as given by Mary Bud Rowe in 1972 is the

positive outcomes associated with “wait time”. Rowe’s research indicated that when

teacher phrased or rephrased a student question if it was followed by at least three seconds

of undisturbed silent time for students to formulate responses, the students answered the

question more meaningfully. Other researchers found that regular use of “wait time” has

positive impacts on both students and teacher attitude and behaviors as well.

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