

Science and Art of Teaching

- What part of your teaching is science?
- What part of your teaching is art?

Is Teaching an Art or a Science?

- *Science of teaching* "implies that good teaching will some day be attainable by closely following vigorous laws that yield high predictability and control."
- It also involves "artistic judgment about the best ways to teach."
- Teachers respond with insight, sensitivity, and judgment to promote learning

N.L. Gage

Professional Knowledge

- Grounded in scientific principles and a set of personal experiences and resources
- Teacher's "gut" reaction to a teaching/learning situation as it unfolds

Is teaching an Art or a Science?

- The hunches, judgment, and insights of the teacher are as important as the science of teaching.
 - Dynamics among students
 - Compromises between students and teachers are more important than any theory about teaching
 - It's the everyday routines and relationships that determine the process and outcome of teaching

Phillip Jackson

Is teaching an Art or a Science?

- Teaching is based primarily on feelings and artistry not scientific rules. Teaching is an art and a craft.
 - The scientific movement in psychology, especially behaviorism, and the scientific movement in education, especially school management reduces teaching to trivial specifications
 - Teaching as a “poetic metaphor” more suited to satisfying the soul rather than the head, more concerned with the whole rather than a set of discrete skills or stimuli.
 - The role of the teacher is to orchestrate the dialogue (conductor) moving from one side of the room to the other

Elliott Eisner

Is teaching an Art or a Science?

- Effectiveness and artistry go hand in hand. Given the everyday challenges, teachers must rely on intuition and insight gained through experience. He calls this “with-it-ness”
- “instructional judgments” “quick cognitive leaps” and “informal guesses” to explain the difference between the effective and the ineffective teacher
 - it’s a feel for what is right more than prolonged analysis
 - compares teacher’s pedagogy with the artists colors, poet’s words, or musician’s notes

Louis Rubin

Is teaching an Art or a Science?

- Seymour Sarason teacher as a performing artist. Teacher attempts to instruct and move the audience. Attempts to transform the audience in terms of thinking and instilling new ideas. This alters the person's outlook toward objects or ideas.
 - The metaphor requires that the performing artist possesses talent and innate ability to be effective along with sufficient rehearsal and caring behavior.
 - Need for teachers to understand students and for good teachers to connect with their audience.
 - Successful teacher understands him/her self and understands and accepts others

Teaching as a science

- The more scientific our approach the more we ignore the artistic, and the spontaneity of teaching
- Teaching as a science the pedagogy is predictable and can be observed and measured
- Scientific ideas can be the basis for discussion and analysis of the art of teaching

Is teaching an Art or a Science?

- Good teaching blends emotions, feelings with objectivity of observations and measurements and the precision of language
- Knowledge of teaching is achieved by classroom practice and experience

Allan Ornstein

Humanistic Teaching

- Focus on the feelings and attitudes of the learner not knowledge and information
- Feelings and attitudes determine what knowledge and information are most important
- Gaining self-esteem related to high achievement
- Make students feel good about themselves

Humanistic Teaching – focus on the learner

- Child centered teaching - Dewey
- Play centered – Montessori
- Activity-centered – Kilpatrick
- Compromise –Sizer
- Noddings – caring teachers
- Glasser – humanistic teaching
- Lack of humanism and moral teaching has resulted in lack of conscience and caring - Ornstein

Discussion Questions

- How would you defend the claim that teaching should be considered an art?
- How would you defend the claim that teaching should be considered as science?
- What qualities are most important for a teacher to possess?
- What are the benefits of having teachers focus their instruction on the dark side of human behavior? What are the drawbacks?
- Who should decide what topics are legitimate to students to learn about? How should such decisions be made?