

Dimensions of Disciplinary Understanding—Cerritos College Faculty

Educational Psychology--Jan Connal

Knowledge:

The concept of learning and cognition as a developmental process (not fixed); relationship of attention, perception, motivation and meta-cognition on learning; conditions which facilitate and inhibit learning; various perspectives attempt to explain learning, including Behavioral, Cognitive, Social Cognitive, and Constructivist perspectives.

Methods:

Quantitative research methods employ the deductive, objective, scientific method to test educational treatments. Methods include experiments, various sampling techniques with the general purpose of predicting an event. Qualitative research methods employ an inductive approach to examining how humans learn. Methods allow for subjectivity with a focus on discovering and explaining phenomena and include observations, interviews, focus groups, surveys, case studies and direct interrogation of learning artifacts.

Purpose:

To understand how humans learn in educational settings; to determine the effectiveness of educational strategies for improving teaching and learning.

Forms:

Generally text based, ranging from highly standardized and structured reporting format found in juried research journals to popular magazines to personal stories to video to Web-based windows for “going public.”

Speech and History --Kimberly Rosenfeld and George Jarrett

Forms

How is the insight of the discipline typically communicated to the world? For the arts, what are the forms and genres of the art?

- History
 - *Monographs, journal articles, conference papers*
 - *Archives*
 - *Documentary films*
 - *Museum displays*
- Communication
 - *Oral performances (literary interpretation, debate, etc.)*
 - *Consulting, training, coaching, facilitation*
 - *Monographs, journal articles, conference papers*

Knowledge

What do we know as a result of the work of this discipline? (concepts; accepted findings; corrected misconceptions...)

- History
 - *Conflict over slavery led to the Civil War*
 - *Paid labor and increased control over reproduction caused women to demand equal rights*
- Communication
 - *Everything is symbolic; meaning is separate from the symbol*
 - *Meaning manifests through acts*

- *Perception plays a role in how we understand and produce messages*
- *Messages must take into account audience*
- *Messages are bound by context and perspective*
- *Communication is verbal and non-verbal*

Methods

How does one build and validate knowledge in this discipline?

- History
 - *Analyze documentary evidence from multiple perspectives*
 - *Construct narratives to explain cause and effect*
- Communication
 - *Qualitative: ethnography, interviews, analyses of texts and recorded speech acts*
 - *Quantitative: questionnaires, surveys*
 - *Generate and validate theories and models of communication*
 - *Synthesize and utilize numerous social behavioral theories (e.g., psychology, sociology, etc.)*

Purposes

Possible uses of this kind of knowledge

What does this kind of inquiry afford?

- History:
 - *Identify continuity and change over time*
 - *Define and justify the nation*
- Communication:
 - *Look at and understand messages and perspectives*
 - *Train students to synthesize information, recognize perspectives, and present convincing arguments*
 - *Understand how meaning is generated through communicative acts*
 - *To actively participate in the democratic process*
 - *To make change happen*
 - *To build relationships*
 - *To effectively express oneself*

Mathematics--Sue Parsons

Purpose - Mathematics is a language used to describe and communicate relationships and patterns, and to interpret, analyze and model data to solve real-world problems. Mathematics is a science for building and validating knowledge.

Method – create and solve equations, create graphical and geometric representations, utilize formulas, interpret data, model data, prove and apply theorems and conjectures, formulate and solve mathematical problems, interpret results; exploration, hypothesis, analysis, modeling, interpretations

Knowledge - analyze data, reason with statistics, and understand mathematical models, proportional reasoning, quantitative literacy, critical thinking. Mathematics is a way of looking at aspects of the world and phenomena to answer or research a question or investigate a situation. Mathematics has applications in music, art, science, history, politics, etc.

Forms – mathematical symbols, expressions, equations, inequalities, formulas, theorems, postulates, conjectures, identities, graphs, tables, problem situations, spatial

Philosophy--Ana Torres-Bower

Introduction: We philosophize when we present arguments to support the claim that something is true or real about our worldviews (metaphysics), our actions (ethics), and our system of knowledge (epistemology). Philosopher G. E. Moore stated that “the most important and interesting thing which philosophers have tried to do is no less than this; namely: to give a general description of the whole Universe, mentioning all of the most important kinds of things which we *know* to be in it, considering how far it is likely that there are in it important kinds of things which we do not absolutely *know* to be in it, and also considering the most important ways in which these various kinds of things are related to one another.”

Philosopher Bertrand Russell wrote: “All *definite* knowledge –so I should contend- belongs to science; all *dogma* as to what surpasses definite knowledge belongs to theology. But between theology and science there is a No-Man’s Land, exposed to attack from both sides; this No-Man’s Land is philosophy.”

Dimensions of Disciplinary Understanding:

- Forms-** The genres of performance, symbols, and systems in philosophy are accomplished by means of *Dialogues* (Plato), *Meditations* (Descartes), *Treatise* (Aristotle), *Plays* (Sartre), *Confessions* (St. Augustine), *Poems* (Lucretius), *Essays* (John Stuart-Mill), *Letters* (Epicurus), *Proofs* (Aquinas), and *Critiques* (Kant).
- Knowledge-** The concepts, assumptions, and worldviews in philosophy can be explained as the development of systems and theories about metaphysics (What’s real? e.g. Plato), ethics (What’s the best possible life? e.g. Aristotle) and epistemology (What are the sources, problems and limits of knowledge? e.g. Descartes)
- Methods-** Examples of methods of building and validating knowledge in the domain of philosophy are the development of systems and theories by means of arguments, definitions, dialogues, questions, examples, and explanations.
- Purposes-** In philosophy some of the uses that this kind of inquiry affords us are the development of systems or theories to explain and justify the most general principles about human beings and nature for the purpose of living a meaningful and responsible existence.

English/Literary Studies--Frank Mixson

Knowledge—literary periods, historical events, philosophical influences; demonstrate an understanding of the current interpretation of a literary or cultural artifact; recognize the influence of the historical, literary, philosophical, and cultural context of specific cultural or literary artifacts.

Methods—Reading and identifying important material in the text, reading relevant research on the text or literary period; interpret the representations of gender, class, race, and other categories of specific cultural or literary artifacts.

Purpose—Explore the cultural and literary representations of gender, class, race and other categories.

Genre—Essays that give interpretation of literary and cultural artifacts.