

Please write down your
definition of the word,
MOUNTAIN,
include images you think of
when you hear this word.

8th Biennial Conference on University's Education in Natural Resources

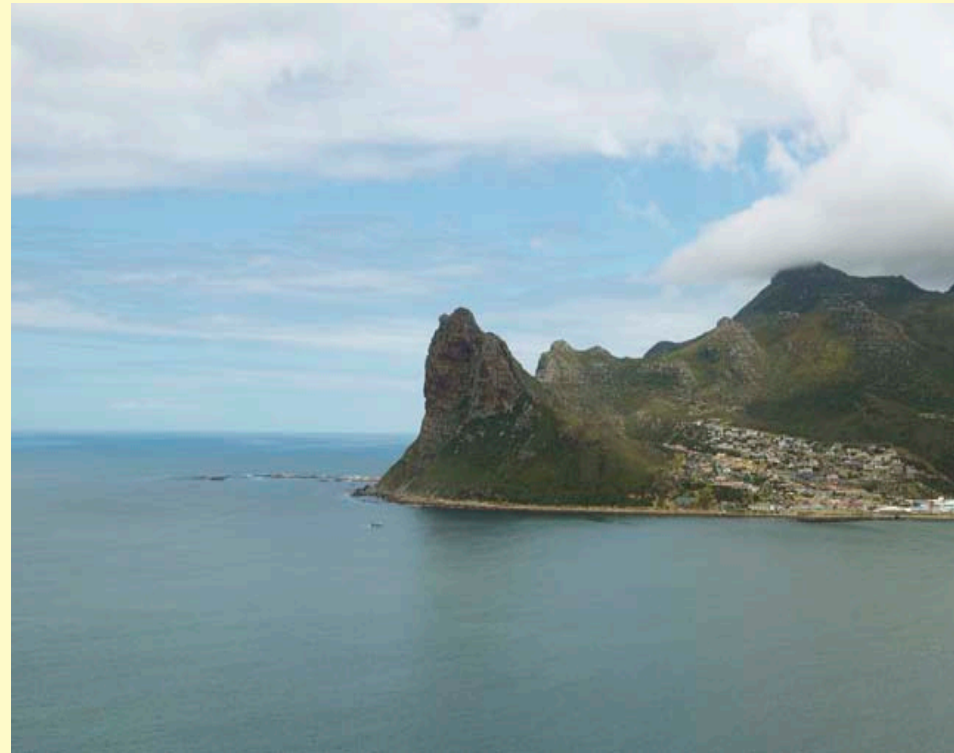
March 26, 2010

3:30P.M. to 4:30P.M.



“A land mass that projects well above its surroundings; higher than a hill.”

<http://wordnetweb.princeton.edu/perl/webwn?s=mountain>



Constructivist Approaches to Education: Fostering Student Construction of Knowledge



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Constructivism:

- Knowledge actively constructed by an individual or social group; meaning is shaped by individual or social experiences.



CONSTRUCTIVISM

INDIVIDUAL



- Piaget, Von Glaserfeld
- “The assumption that knowledge, no matter how it is defined, is in the heads of persons, and that the thinking subject has no alternative but to construct what he or she knows on the basis of his or her own experience” (Philips, 2000, p. 10).

SOCIAL



- Vygotsky, Dewey, Bruner
- Knowledge is a result of the “role played by the vast cultural repertoire of artifacts, ideas, assumptions, concepts, and practices which the individual inherits or is born into” (Philips, 2000, p. 11).

CONSTRUCTIVISM

INDIVIDUAL



- Motivation is intrinsic. Learners set their own goals and motivate themselves to learn.
- Learning is more about personal development and the construction of knowledge within the framework of the individual's mind.

SOCIAL



- Collaborative learning is facilitated and guided by the teacher. Group work.
- Motivation is intrinsic and extrinsic. Learning goals and motives are determined both by learners and extrinsic rewards provided by community.



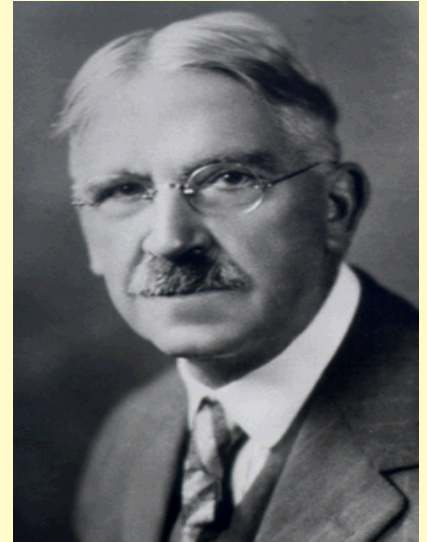
Learning is an **active** process. You are not passively absorbing information, but actively constructing meaning.

The "Greats"



Jean Piaget

John Dewey



Lev Vygotsky



Jerome Bruner



Scholars Who Influenced Constructivism

Key Scholar	Time Period	Expertise	Contribution	Known For
<i>John Dewey</i>	Early 1900s	Philosopher, psychologist, educational reformer	Epistemology, Logic	Educational progressivism
<i>Jean Piaget</i>	1900s	Cognitive development	Individual Constructivism	Cognitive development
<i>Lev Vygotsky</i>	Early 1900s	Cultural-historical psychology	Psychology of play; Social constructivism	Zone of Proximal Development
<i>Jerome Bruner</i>	Mid-late 1900s	Cognitive and educational psychology	Social constructivism	“The Narrative Construction of Reality”



Five Principles of Constructivism

- Teachers should:
 - “Seek and value students’ points of view”
 - Create classroom activities that “challenge student’s suppositions”
 - Create relevance for their lessons
 - Build their lessons around “primary concepts” and “big ideas”
 - Assess students “in the context of daily teaching”
 - (Brooks & Brooks, 1999, p. ix – x)

Constructivist teaching strategies

- Discovery learning
 - Guided discovery
- Inquiry learning
- Problem based learning
- Discussion
- Cooperative learning groups
- Among others...

Contrasting examples

- Ben Stein in Ferris Buehler's Day Off
- Robin Williams in Dead Poets Society

What kind of teacher do you want to be?

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