

Beliefs Continuum

Source of Knowledge (omniscient authority)

Handed down by all-knowing authority _____ Reasoned out

Certainty of Knowledge

Absolute; doesn't change _____ Constantly evolves

Organization of Knowledge ("simple knowledge")

Compartmentalized _____ Highly integrated; interwoven

Control of Learning (fixed ability)

Ability is genetically predetermined _____ Ability is acquired through experience

Speed of Learning

Quick or not-at-all _____ Gradual process

Epistemological Beliefs

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Epistemology – study or theory of origin, nature, limits of knowledge

Epistemological beliefs relate to:

- Reading comprehension
- Learning in complex or poorly structured environments
- Learner's active participation in learning
- Learner's persistence in learning

How beliefs are described depends on focus of researcher:

- Trying to extinguish learning problems in discipline (e.g. math, science)
 - Poor students believe knowledge:
 - “Mere basket of facts”
 - “Fixed ability to learn”
 - “Pre-packaged schemas”
 - “Only geniuses are capable of understanding...math”
- Looking at nature of intellectual growth (e.g. Perry)

Middle school students and math (Schommer, Duel, Hutter, 2005)

Strongest beliefs:

1. Quick/fixed learning
2. Studying aimlessly (haphazard)

Leads to:

- Math is of little use, therefore they don't solve problems successfully; speed through problem-solving
- Beliefs guide students in choice of strategies and time spent in problem-solving

College students

- Beliefs about learning and beliefs about what is excellence in a specific academic discipline determine strategies used and academic success.
- Students' belief systems are filters for how they interpret study tasks, how they interact with text, and strategies and process they choose to use.