

Constructivism: shifting the focus from product to process

Lecture 3: Mon 25th Jun 2012

EDG11 Professional Standards Postgraduate Certificate in Teaching Tonga Institute of Education

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Objectives

- Understand what constructivism is:
 - Essence and focus
- Aware of your own theories of learning/teaching:
 - Essence and focus
- Understand that constructivism is a theory!
- Understand the implications of learning theories to teaching and everyday life.

Just a theory: a reaction to experience SOUTH PACIFIC

- What is a theory?
 - A well-substantiated explanation for a phenomenon;
 - Is it a fact?
 - Can it change?
- Why theories?
 - Help us explain, predict & live sense of security/certainty;
 - Provides motivation for action.
 - Can't effectively change action without changing beliefs (theories).
 - Beliefs empower people, more chances these will be actioned, more chances of success.



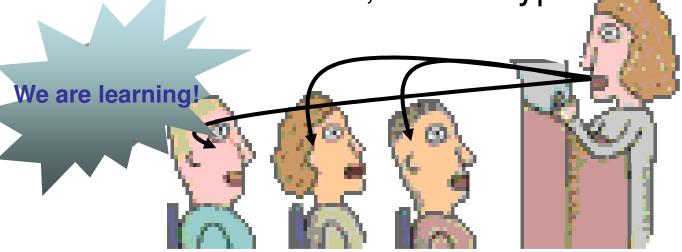
What's your beliefs about how learning occurs?

- Traditional belief (Objectivism)?:
 - Emphasis on objectivity (not influenced by personal feelings or opinions; based on "facts".
 - Facts = observation; what can be observed
 - That knowledge resides in the book/teacher's brain.
 Therefore, it must be reproduced & memorised;
 passed on unchanged;
- Teaching = talking/speaking/lecturing
- Learning = listening?, memorising?



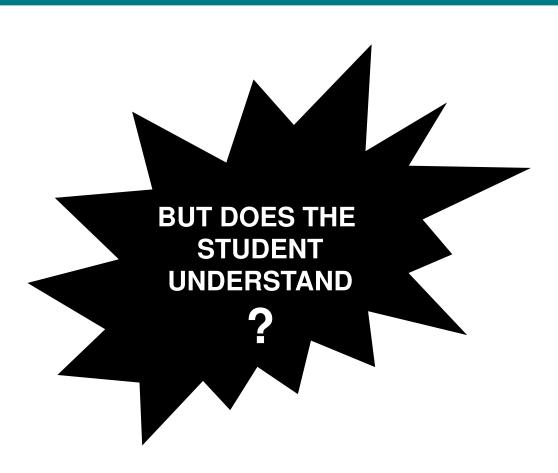
Traditional theories about teaching & learning

 Teaching strategy - Teacher talks, student listens and 'learns'; lecture type



Teachers ask: "Is the answer right?"







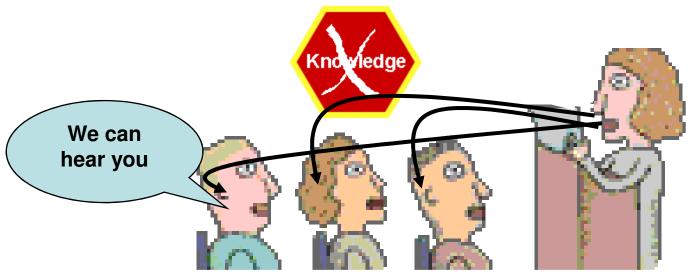
Constructivism: the essence

- During learning, the ONLY tools available to a student are his/her senses (e.g. sight, hearing, feel, taste, smell)
- 2. Learning is the result of an individual using his/her **prior experiences** to interpret new experiences
 - We see the world through the lenses of our prior experiences (prior learning, culture, up-bringing, etc)
- 3. Knowledge is subjective.



Constructvism

- Just because learners are listening doesn't mean they are learning!
- In constructivism: the learner is an active constructor of knowledge; the teacher is a facilitator of learners' construction of knowledge



Constructivism

The learner interprets new experiences using what he already knows about those experiences (prior experience/knowledge)





I can hear you. I can see you!

- ■Teacher facilitates and guides; students construct knowledge in ways that make the best sense to them
- ■The teacher asks: "Is the answer meaningful?"

The importance of prior experience: THE UNIVERSITY OF Example

Knowledge: Objective or Subjective







Statement		Observation (Yes or No)
A	There is a stop sign on the corner of Apia Road and Vila Street.	
В	The truck did not come to a halt at the stop sign.	
С	The car is a total write-off.	
D	There are beer cans on the road next to the car.	
E	The driver of the car has been drinking alcohol.	
F	The car's windscreen is smashed.	
G	The driver cut his forehead on the broken window.	
Н	The driver of the car was not wearing a seat belt.	



Constructivism

- If answer is meaningful and workable = right
- Embraces diversity of ideas —promotes free-diverse thinking
- Prior experience is important: can either:
 - enhance learning, OR
 - prevent meaningful understanding.
- Rich bank of prior experiences is good for learning.
- Expose students/children to a diversity of experiences:
 - Family members, TV, newspapers, toys, books, videos, etc



Reflection helps

- make a connection between elements of our prior knowledge (assimilation and accommodation, Piaget)
- Make us aware of what we already know; make new meaning out of existing knowledge
- expand understanding



Collaboration

- Helps us listen to other points of view
- Allows us to understand how things make sense to other people
- Helps us appreciate/tolerate differences



References

- Brown, T. H. (2005). Beyond constructivism: exploring future learning paradigms. *Education Today*, 2.
- 2. Martin, D.J. (2003). *Elementary science methods: A constructivist approach*. California: Wadsworth.