



VIRTUAL LEARNING ENVIRONMENTS



Background

Technology and education all too often means “inventing new gadgets to teach the same old stuff in a thinly disguised version of the same old way.”

Most software used in classrooms used closed loop situations and focuses students on predetermined sets of information -- this is ‘edu-tainment’.

Staunch opposition to computers typically comes from people who think the computer by itself is useful, however “computers cannot produce ‘good’ learning, but children can do ‘good’ learning with computers.”



Background

We are witnessing a widening gap between the kinds of jobs available and the relevance of subject matters studied in schools.

Schools and classrooms face a greater number of restraints placed on curricula and student outcomes due to accountability and funding policies.

The institution may be stagnant, but the students are not.





Increasingly, the computers of the very near future will be the private property of individuals, and this will gradually return to the individual the power to determine patterns of education. -- Seymour Papert, 1980





PROBLEM

Predetermined outcomes in educational technology use limit critical thinking and problem solving skills.



QUESTION

How can Constructivism and Critical Theory
help to make the case for using
Virtual Learning Environments in schools?





CONSTRUCTIVISM

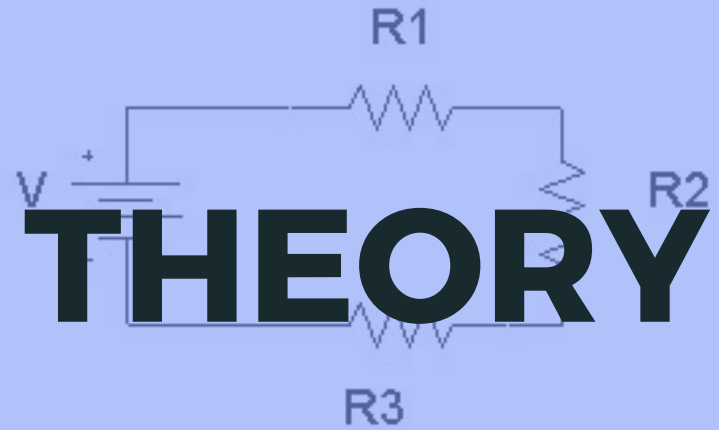
- | Learning is an active process
- | Students actively create subjective representations of objective reality
- | Students use personal experiences to create hypotheses
- | Hypotheses are tested through social interactions and dynamics
- | Learner is Designer
- | Rejects 'banking model of education'
- | Utilizes the Zone of Proximal Development



DEWEY
VYGOTSKY
FREIRE PAPERT



CRITICAL THEORY



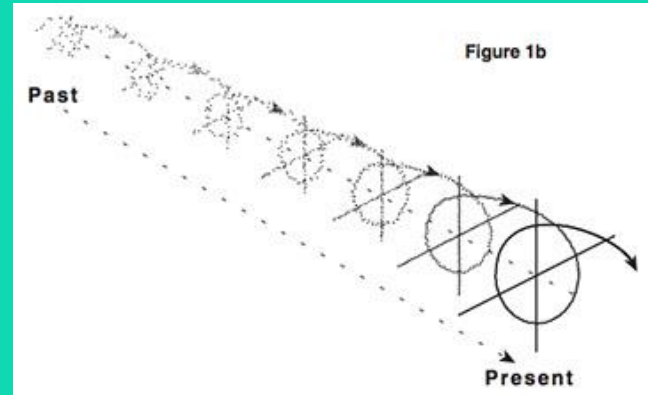
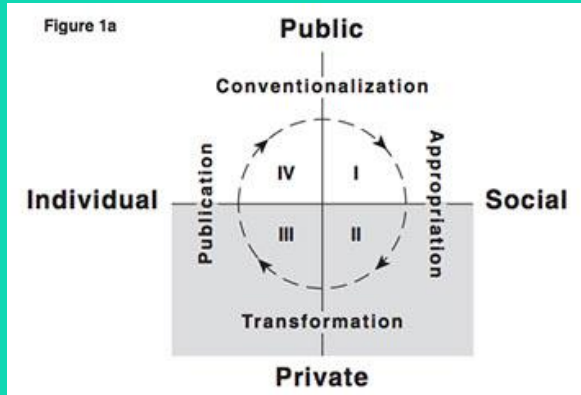
- A focus on how online culture works to disrupt dominant culture values and policies that systematically oppress
- Remain wary of educational use software that operates with closed loop thinking and focuses students on a predetermined set of information
- Research the “Internet deserts” to allow for more targeted infrastructural improvements
- Actively avoid recreating the conditions for the existing class, wealth, race, and power struggles that education aims to solve
- Place the learner in the position of designer and producer rather than consumer

VIRTUAL LEARNING ENVIRONMENTS: A new theoretical framework



- **An additional theoretical framework based on an analysis and a synthesis of Constructivist and Critical Theory concepts**
- **A three dimensional framework to help move forward the conversation about new forms of classrooms and new uses of educational technology in order to help foster critical thinking and problem-solving skills through open-ended classroom experiences**
- **Imagines renegotiated learning spaces and new forms of classrooms that are inclusive and equitable, and pushes ahead to ask that transformational teaching and learning serve as a primary mark of success favored over standardized testing**

VYGOTSKY SPACE MODEL



(Gavelak and Raphael, 1996)

What we are now calling Virtual Learning Environment, in fact, uses the very familiar formula of classroom discussion because teachers and students begin by interacting with objects and ideas alone and then encounter others in a multi-user space as they go on to negotiate and co-construct ideas and objects together.

