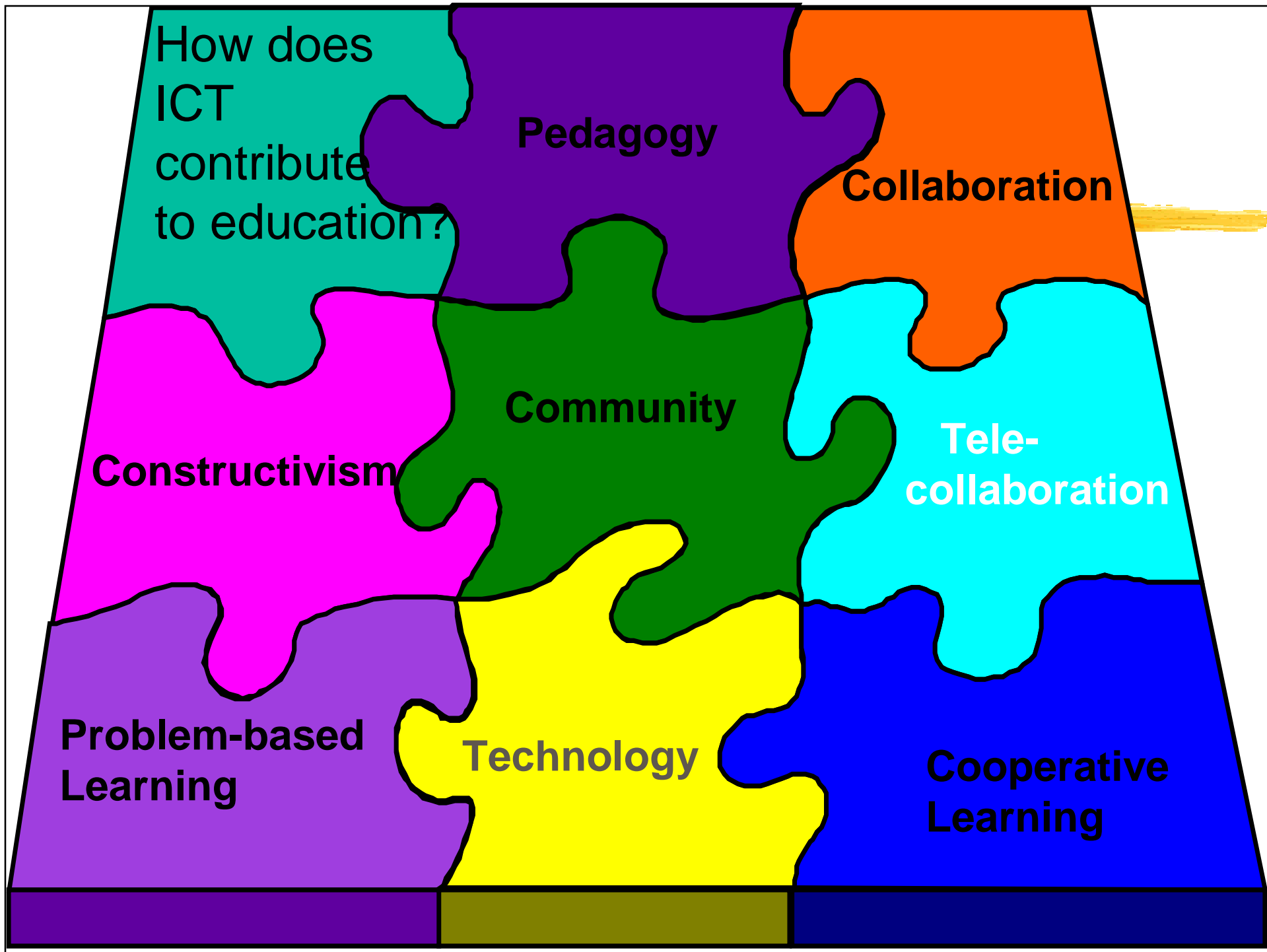


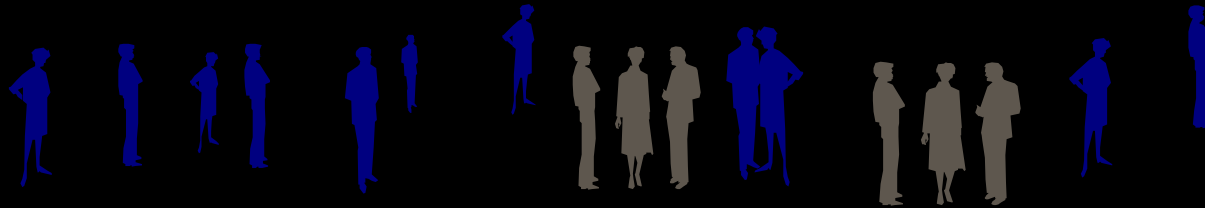
World Links for Development



ICT and Education Reform



Community



A social group united by
a shared sense of purpose
mutual concern
and a common interest.





Virtual Community

When we say "society," we usually mean citizens of cities in entities known as nations. We take those categories for granted...

All the questions about community in cyberspace point to a [...] transition that might be taking place now, for which we have no technical names.

Howard Rheingold, *Virtual Community* (1995)

Thus, ICT builds upon traditional definitions while also challenging them...

ICT in Education: 4 Primary Functions

- 1. Global access to information
(online research via WWW)**
- 2. Global publication of information
(webpages, newsgroups, etc.)**
- 3. Communicating one-to-one
(email, chat, etc.)**
- 4. Communicating in groups
(mailing lists, discussion forums, etc.)**



Pedagogy's "Paradigm Shift"

Teaching-centered vs. Learning-Centered



Method = Lecture
Teacher's role:
"Sage on Stage"



Method = Collaborative
Teacher's Role:
"Guide on the Side"

Cooperative Learning



A teaching strategy in which teams of two or more work together on learning tasks in small groups or as an entire class (large group).

Each member of the team brings special talents and abilities to the group. Team members cooperate on the achievement of the tasks and learn from each other. As a result, students learn both academic and social skills from a cooperative learning environment.

ONLINE RESOURCE:

Cooperative Learning Center <<http://www.clcrc.com/>>

Project-based Learning

Also called: Resource-Based Learning, Problem-Based Learning, Project Approach

In most cases, defined by:

- a central question or problem important to students and relevant to the curriculum
- a product that reports the results of the investigation into the problem
- active participation by students from question development through product presentation
- TEACHER's role = mentor, facilitator, guide



Project Characteristics



- interdisciplinary and/or integrative
- encourages use of many resources (technological/traditional)
- encourages deeper understanding and knowledge of topics
 - emphasizes learning more than finding the “right” answer
 - requires application of content knowledge and process
 - flexible learning environment in terms of time and space
 - takes at least several class periods to complete
 - requires alternative assessments to measure learning

Online Reference:

<http://ericps.crc.uiuc.edu/ece/pubs/digests/1994/lk-pro94.html>

“Problem Based Learning”:



A pedagogical strategy for posing significant, contextualized, real world situations, and providing resources, guidance, and instruction to learners as they develop content knowledge and problem-solving skills.

(Mayo, Donnelly, Nash, & Schwartz, 1993).

Reference:<<http://edweb.sdsu.edu/clrit/learningtree/PBL/WhatisPBL.html>>

Collaborative Learning



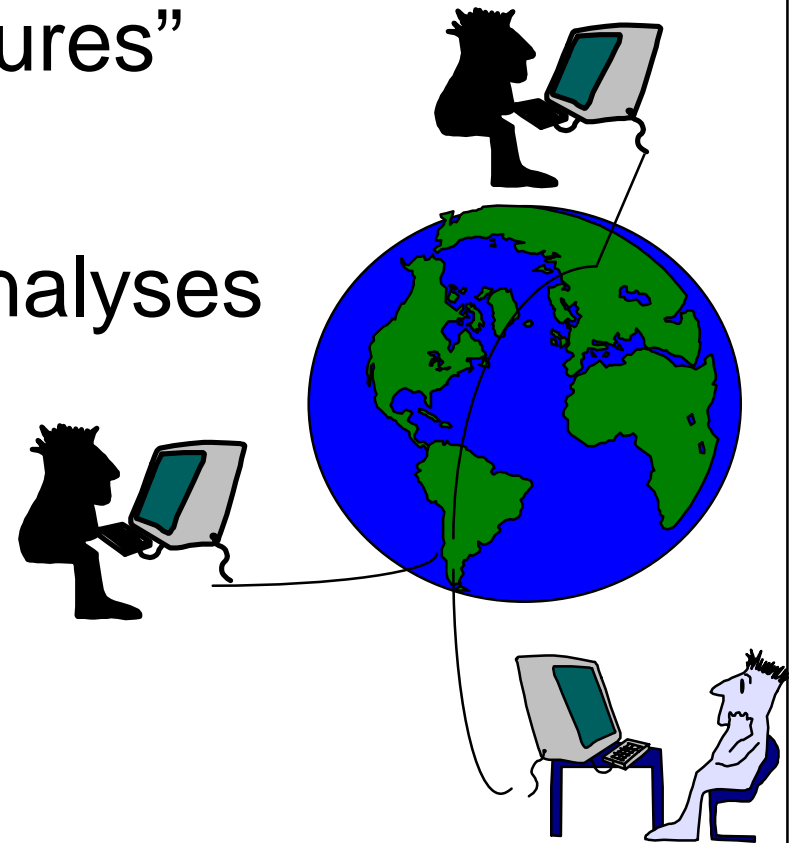
“Collaborative learning is the process whereby each member contributes personal experience, information, perspective, insight, skills and attitudes with the intent of improving the learning accomplishments of others. The group's collective learning ultimately becomes possessed by each individual in the group. Collaborative learning occurs when small groups of learners help each other learn.” (*Instructional Design for the New Media*)

Online Reference: <http://www.wcer.wisc.edu/nise/cl1/CL/clhome.asp>

Telecollaborative Learning?

Three types of “activity structures”

- Interpersonal Exchanges
- Information Collections & Analyses
- Problem-Solving

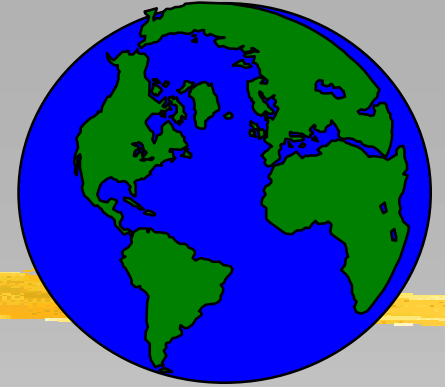


Online Reference:

Judi Harris' *Virtual Architecture*

<<http://ccwf.cc.utexas.edu/~jbharris/Virtual-Architecture>>

Constructivism



A pedagogy designed to help students

- build upon prior knowledge;
- use higher-order (critical) thinking skills;
- understand causes or effects of ideas or actions;
- become fully engaged in their learning through the social construction of meaning.

Beliefs (see Piaget's Cognitive-Development)

- Knowledge is constructed by humans
- Knowledge is conjectural and fallible.
- Knowledge grows through experience.

Theory into Practice

Community + technology + pedagogy =
Constructivist Learning

- Cooperative
- Problem-based
- Project-based
- Collaborative
- Telecollaborative



Technology makes it possible



- ⌘ The biggest change that technology brings is Educational Reform
- ⌘ This is why professional development and preservice training are critical for a successful implementation of an ICT in Education Strategic Plan.