Glossary of "Learning" Terms

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Active Learning

Source: http://crossroads.georgetown.edu/vkp/resources/glossary/activelearning.htm

From: Chickering and Gamson, "Seven Principles for Good Practice in Undergraduate Education," *AAHE Bulletin*, March 1987.

Good Practice Encourages Active Learning. Learning is not a spectator sport. Students do not learn much just sitting in classes listening to teachers, memorizing pre-packaged assignments and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences, and apply it to their daily lives. They must make what they learn part of themselves.

- I ask students to present their work in class.
- I ask my students to relate outside events or activities to the subjects covered in my courses.
- I encourage students to challenge my ideas, the ideas of other students, or those presented in readings or other course materials.
- I give my students concrete, real-life situations to analyze.
- I encourage students to suggest new readings, projects, or course activities.

From: John D. Bransford, Ann L. Brown, and Rodney R. Cocking (eds.), *How People Learn: Brain, Mind, Experience, and School*.
http://books.nap.edu/html/howpeople1/ch1.html.

New developments in the science of learning emphasize the importance of helping people take control of their own learning. Since understanding is viewed as important, people must learn to recognize when they understand and when they need more information. What strategies might they use to assess whether they understand someone else's meaning? What kinds of evidence do they need in order to believe particular claims? How can they build their own theories of phenomena and test them effectively?

Source: http://www.ntlf.com/html/lib/bib/91-9dig.htm
(ED340272 Sep 91 Active Learning: Creating Excitement in the Classroom. ERIC Digest.
ERIC Clearinghouse on Higher Education, Washington, D.C.; George Washington Univ., Washington, D.C.

Surprisingly, educators' use of the term "active learning" has relied more on intuitive understanding than a common definition. Consequently, many faculty assert that all learning is inherently active and that students are therefore actively involved while listening to formal presentations in the classroom. Analysis of the research literature (Chickering and Gamson 1987), however, suggests that students must do more than just listen: They must read, write, discuss, or be engaged in solving problems. Most important, to be actively involved, students must engage in such higher-order thinking tasks as analysis, synthesis, and evaluation. Within this context, it is proposed that strategies promoting active learning be defined as instructional activities involving students in doing things and thinking about what they are doing.

Authentic Learning

Source: http://crossroads.georgetown.edu/vkp/resources/glossary/authenticlearning.htm

From: M. Suzanne Donovan, John D. Bransford, and James W. Pellegrino (eds.), *How People Learn: Bridging Research and Practice*.

Authentic learning allows students to explore, discover, discuss, and meaningfully construct concepts and relationships in contexts that involve real-world problems and projects that are relevant and interesting to the learner.

Authentic learning implies several things: that learning be centered around authentic tasks, that learning be guided with teacher scaffolding, that students be engaged in exploration and inquiry, that students have opportunities for social discourse, and that ample resources be available to students as they pursue meaningful problems. Advocates of authentic learning believe these elements support natural learning, and many of these ideals are based in theory and research on learning and cognition.

Collaborative Learning

Source: http://www.city.londonmet.ac.uk/deliberations/collab.learning/panitz2.html
(Ted Panitz (1996))

Collaborative learning (CL) is a personal philosophy, not just a classroom technique. In all situations where people come together in groups, it suggests a way of dealing with people which respects and highlights individual group members' abilities and contributions. There is a sharing of authority and acceptance of responsibility among group members for the groups actions. The underlying premise of collaborative learning is based upon consensus building through cooperation by group members, in contrast to competition in which individuals best other group members. CL practitioners apply this philosophy in the classroom, at committee meetings, with community groups, within their families and generally as a way of living with and dealing with other people.

On the difference between cooperative and collaborative learning:

Cooperative learning is defined by a set of processes which help people interact together in order to accomplish a specific goal or develop an end product which is usually content specific. It is more directive than a collaboratve system of governance and closely controlled by the teacher. While there are many mechanisms for group analysis and introspection the fundamental approach is teacher centered whereas collaborative learning is more student centered.

Source: http://scholar.lib.vt.edu/ejournals/JTE/jte-v7n1/gokhale.jte-v7n1.html
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The concept of collaborative learning, the grouping and pairing of students for the purpose of achieving an academic goal, has been widely researched and advocated throughout the professional literature. The term "collaborative learning" refers to an instruction method in which students at various performance levels work together in small groups toward a common goal. The students are responsible for one another's learning as well as their own. Thus, the success of one student helps other students to be successful.

Constructivism

Source: http://crossroads.georgetown.edu/vkp/resources/glossary/constructivism.htm

From: Peter C. Honebein (1996), "Seven Goals for the Design of Constructivist Learning Environments." In B. Wilson, *Constructivist Learning Environments: Case Studies in Instructional Design*.

The approach:
1. Provide experience with the knowledge construction process.
2. Provide experience in and appreciation for multiple perspectives.
3. Embed learning in realistic and relevant contexts.
4. Encourage ownership and voice in the learning process.
5. Embed learning in social experience.
6. Encourage the use of multiple modes of representation.
7. Encourage self-awareness of the knowledge construction process.

From: "The Practice Implications of Constructivism." *SEDLetter*, Vol. IX, Issue 3, August 1996. Southwest Educational Development Laboratory web site, http://www.sedl.org/pubs/sedletter/v09n03/practice.html.

Constructivism's central idea is that human learning is constructed, that learners build new knowledge upon the foundation of previous learning. This view of learning sharply contrasts with one in which learning is the passive transmission of information from one individual to another, a view in which reception, not construction, is key. Two important notions orbit around the simple idea of constructed knowledge. The first is that learners construct new understandings using what they already know. There is no tabula rasa on which new knowledge is etched. Rather, learners come to learning situations with knowledge gained from previous experience, and that prior knowledge influences what new or modified knowledge they will construct from new learning experiences.

From: "What is Constructivism?" From *Constructivism as a Paradigm for Teaching and Learning.* Concept to Classroom web site, http://www.wnet.org/wnetschool/concept2class/month2/index.html.

Constructivism is basically a theory -- based on observation and scientific study -- about how people learn. It says that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. When we encounter something new, we have to reconcile it with our previous ideas and experience, maybe changing what we believe, or maybe discarding the new information as irrelevant. In any case, we are active creators of our own knowledge. To do this, we must ask questions, explore, and assess what we know. In the classroom, the constructivist view of learning can point towards a number of different teaching practices. In the most general sense, it usually means encouraging students to use active techniques (experiments, real-world problem solving) to create more knowledge and then to reflect on and talk about what they are doing and how their understanding is changing. The teacher makes sure she understands the students' preexisting conceptions, and guides the activity to address them and then build on them.

From: Jacqueline Grennon Brooks and Martin G. Brooks, *In Search of Understanding: The Case for Constructivist Classrooms* (revised edition). http://www.ascd.org/readingroom/books/brooks99toc.html.

12 principals essential to constructivist teaching:
1. Encouragement and acceptance of student autonomy and initiative.
2. Utilization of raw data and primary sources along with manipulative, interactive, and physical materials.
3. When planning, teachers use cognitive terminology such as 'classify,"analyze,' and 'create.'
4. Allowance of student responses to drive lessons, shift instructional strategies, and alter content.
5. Inquiry concerning students' understanding of concept before sharing their own understanding of those concepts.
6. Encouragement of students to engage in dialogue, both with the teacher and with one another.
7. Encouragement of student inquiry by asking thoughtful, open-ended questions and encouraging students to ask questions of each other.
8. Pursuit of elaboration of students' initial responses.
9. Engagement of students in experiences that might engender contradictions to their initial hypotheses and then encourage discussion.
10. Allowances for wait time after posing questions.
11. Providing time for students to construct relationships and create metaphors.
12. Nurturing students' natural curiosity through frequent use of the learning cycle model.

From: Katy Campbell, *The Web: Design for Active Learning*.
http://www.atl.ualberta.ca/articles/idesign/activel.cfm

Jerome Bruner is largely credited with the emergence of constructivism, a theory of learning and instruction that encompasses cognitive learning theories.
Bruner postulates that learning is an active process, during which learners construct new ideas based on their current understanding and perspectives. They do this by selecting, then transforming information by organization, elaboration, scaffolding, and other cognitive strategies.
During this process, the instructor (who may be virtual) engages the student in a conversation to help him/her build upon existing knowledge structures.
Bruner recommends that curriculum be organized in a spiral so that this building process is facilitated and enhanced with each turn.
The main principles of constructivism, from a design point of view, are that:
1. Instruction should be concerned with the experiences, convictions, and constructs that learners already possess.
2. Instruction should be structured so that it can be easily understood and modified by the learner.
3. Instruction should be designed to facilitate exploration, extrapolation, and elaboration.

For more on Bruner, see the Southwest Educational Development Laboratory's "Classroom Compass: Constructing Knowledge in the Classroom" web site, http://www.educationau.edu.au/archives/cp/04c.htm.

Cooperative Learning

Source: *Active Learning: Cooperation in the College Classroom*, by David W. Johnson, Roger T. Johnson, and Karl A. Smith. Interaction Book Company, Edina, MN, 1998.

"**Cooperative learning** is the instructional use of small groups so that students work together to maximize their own and each other's learning." (page 1:14)

Source: http://www.ed.gov/pubs/OR/ConsumerGuides/cooplear.html
(This **Education Research Consumer Guide** is produced by the Office of Research, Office of Educational Research and Improvement (OERI) of the U.S. Department of Education.)

Cooperative learning is a successful teaching strategy in which small teams, each with students of different levels of ability, use a variety of learning activities to improve their understanding of a subject. Each member of a team is responsible not only for learning what is taught but also for helping teammates learn, thus creating an atmosphere of achievement.

Source: http://www.id.ucsb.edu/IC/Resources/Collab-L/Differences.html
(URL: http://www.id.ucsb.edu/IC/
Contents developed by the Office of Instructional Consultation, UCSB.
Comments to web author: george@id.ucsb.edu

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The terms Collaborative Learning and Cooperative Learning have become murky in popular usage, and often, distinctions are not made between the two. Collaborative Learningis the umbrella term encompassing many forms of collaborative learning from small group projects to the more specific form of group work called Cooperative Learning. Cooperative Learning is a type of Collaborative Learning developed by Johnson and Johnson is the 1960's and is still widely used today. The following briefly outlines some major differences between Collaborative and Cooperative Learning.

Cooperative Learning is a specific type of small group learning which has the following five essential elements:
1. Positive Interdependence
2. face-to-face Interaction
3. Individual Accountability (Personal Responsibility)
4. Structured Activitiy
5. Teamwork Skills and Group Processing

Engaged Learning

Source: http://www.ncrel.org/sdrs/engaged.htm

What does engaged learning look like? Successful, engaged learners are responsible for their own learning. These students are self-regulated and able to define their own learning goals and evaluate their own achievement. They are also energized by their learning; their joy of learning leads to a lifelong passion for solving problems, understanding, and taking the next step in their thinking. These learners are strategic in that they know how to learn and are able to transfer knowledge to solve problems creatively. Engaged learning also involves being collaborative--that is, valuing and having the skills to work with others.

Experiential Learning

Source: http://tip.psychology.org/rogers.html
(Copyright 1994-2003 Greg Kearsley (gkearsley@sprynet.com) http://home.sprynet.com/~gkearsley.)

Rogers distinguished two types of learning: cognitive (meaningless) and experiential (significant). The former corresponds to academic knowledge such as learning vocabulary or multiplication tables and the latter refers to applied knowledge such as learning about engines in order to repair a car. The key to the distinction is that experiential learning addresses the needs and wants of the learner. Rogers lists these qualities of experiential learning: personal involvement, self-initiated, evaluated by learner, and pervasive effects on learner.

Source: http://www.teamskillstraining.co.uk/tst_article1.htm

So what is experiential learning? You could say that experiential learning is a learner centred approach which starts with the premise that people learn best from experience. Others might simply say that experiential learning as learning-by-doing.

To make **experiential learning** effective the learning wheel is used. This is a cyclic process of setting goals, followed by thinking, planning, experimenting and **decision making**, followed by action, followed by observing, reflecting & reviewing, followed by a bit more thinking, decision making and sometimes adjusting goals, followed by more action and so on. What makes experiential learning so special?
Simply that the approach to **experiential learning** utilises participants own experience and their own reflection about that experience, rather than lecture and theory as the means of generating understanding and transferring skills and knowledge.

Principles of experiential learning

- **experiential learning** recognises that people learn best from their own experiences and their own reviews
- **experiential learning** subscribes to the notion that what people do is more important than what they know
- **experiential learning** renders behaviours and attitudes visible and thereby can become acknowledged and then addressed
- **experiential learning** is built on the premise that it is not enough to explain to people what to do, they must be shown how to actually do it and then how to improve it
- **experiential learning** moves beyond knowledge and into skill by generating a learning experience - the more experience the greater the skill
- **experiential learning** gets to grips with the most important aspect of training and that is to achieve change in behaviour and attitude
- **experiential learning** understands that to be remembered over a long period of time the learning process should be enjoyable, motivating and rewarding.

Self-Directed Learning

Source: http://www.ntlf.com/html/lib/bib/89dig.htm
(ED312457 89 Supporting and Facilitating Self-Directed Learning. ERIC Digest No. 93. ERIC Clearinghouse on Adult, Career, and Vocational Education, Columbus, Ohio.)

WHAT IS SELF-DIRECTED LEARNING?
An estimated 70 percent of adult learning is self-directed learning (Cross 1981). Self-directed learning has been described as "a process in which individuals take the initiative, with or without the help of others," to diagnose their learning needs, formulate learning goals, identify resources for learning, select and implement learning strategies, and evaluate learning outcomes (Knowles 1975).

… whether or not learning is self-directed depends not on the subject matter to be learned or on the instructional methods used. Instead, self-directedness depends on who is in charge--who decides what should be learned, who should learn it, what methods and resources should be used, and how the success of the effort should be measured. To the extent the learner makes those decisions, the learning is generally considered to be self-directed.

Source: http://home.twcny.rr.com/hiemstra/sdlhdbk.html
(Hiemstra, R. (1994). Self-directed learning. In T. Husen & T. N. Postlethwaite (Eds.), *The International Encyclopedia of Education* (second edition), Oxford: Pergamon Press. Reprinted here by permission.)

Early scholarly efforts to understand self-directed learning took place some 150 years ago in the United States. Craik (1840) documented and celebrated the self-education efforts of several people. About this same time in Great Britain, Smiles (1859) published a book entitled Self-Help, that applauded the value of personal development.

However, it is during the last three decades that self-directed learning has become a major research area. Groundwork was laid through the observations of Houle (1961) (University of Chicago, Illinois). He interviewed 22 adult learners and classified them into three categories based on reasons for participation in learning: (a) goal-oriented, who participate mainly to achieve some end goal; (b) activity-oriented, who participate for social or fellowship reasons; (c) learning-oriented, who perceive of learning as an end in itself. It is this latter group that resembles the self-directed learner identified in subsequent research.

… Knowles popularized in North America the term, andragogy, with corresponding adult instructional processes. His 1975 publication, Self-directed Learning, provided foundational definitions and assumptions that guided much subsequent research: (a) self-directed learning assumes that humans grow in capacity and need to be self-directing; (b) learners' experiences are rich resources for learning; (c) individuals learn what is required to perform their evolving life tasks; (d) an adult's natural orientation is task or problem-centered learning; (e) self-directed learners are motivated by various internal incentives, such as need for self-esteem, curiosity, desire to achieve, and satisfaction of accomplishment.

Self-Regulated Learning

Source: http://www.rit.edu/~609www/ch/faculty/self-reg.htm

Some characteristics of self-regulated learning are:

- Students select goals to pursue and they work on a variety of tasks. They have choices to consider and autonomy to select different purposes. All students understand they must complete a variety of tasks and must plan how to use their time and resources. Self-regulated learners can select appropriate goals such as mastery of course materials and task completion.

- Self-regulated learning reflects the need for challenge. Students adjust the difficulty of the task to be challenging and interesting, yet also within their reach. Selecting 'cheap success' with minimal effort is not sustaining or rewarding in the long run. Some students may set goals that push their own abilities - which allows for a mixture of success and nonsuccess. Such students see learning as proceeding with spurts and plateaus; 'failure' is seen as a temporary setback, not an indictment of their abilities.

- Self-regulated students know how to use the resources available to them, they have control of their learning. They know how to plan, allocate resources, seek help, evaluate their own performance, and revise and correct their own work.

- Self-regulated students collaborate as they work, which serves the purposes of encouraging persistence and providing strategic help when necessary.

- The focus in self-regulated learning is on constructing meaning - to make meaning from the things the student reads, writes and discusses. The key is to focus on creating, constructing, debating, sharing, and revising the meaning.

- The consequences of learning activities are personally rewarding to students who take pride in their efforts and the meaning they construct. Their success is a reflection of their personal imagination, comprehension, and strategies in addition to their hard work. Self-regulated students understand that effort and ability are not the only factors to success. They understand that controllable factors, such as particular strategies or persistence, are important to accomplishment.

Source: http://vcs.ccc.cccd.edu/crs/star/educ120/intro2SRL.htm

What Is Self-Regulated Learning?

Self-regulated learning refers to some rather specific ways that *learners take control of their own learning*. Schunk and Zimmerman (1998) define SRL as:
learning that occurs largely from the influence of students' self-generated thoughts, feelings, strategies, and behaviors, which are oriented toward the attainment of goals

There are three major phases in the SRL cycle: **planning** one's learning, **monitoring** progress while implementing the plan, and **evaluating** the outcome of the plan once it's completed.

Research indicates that there are some key factors that help create expert learners:

1. **Explicit instruction** in the use of learning strategies, which include:
    1. rehearsal strategies
    2. elaboration strategies
    3. organizational strategies
    4. comprehension-monitoring strategies
    5. affective strategies
2. Development of **reflective thinking skills** (including self-questioning)
3. Extensive long-term **practice** applying self-regulated learning followed by informative, corrective **feedback**

Situated Learning

Source: http://www.ericdigests.org/1998-3/adult-education.html
(**Situated Learning in Adult Education. ERIC Digest.** by Stein, David)

A situated learning experience has four major premises guiding the development of classroom activities (Anderson, Reder, and Simon 1996; Wilson 1993): (1) learning is grounded in the actions of everyday situations; (2) knowledge is acquired situationally and transfers only to similar situations; (3) learning is the result of a social process encompassing ways of thinking, perceiving, problem solving, and interacting in addition to declarative and procedural knowledge; and (4) learning is not separated from the world of action but exists in robust, complex, social environments made up of actors, actions, and situations.

These four premises differentiate situated learning from other experiential forms of acquiring knowledge. In situated learning, students learn content through activities rather than acquiring information in discrete packages organized by instructors. Content is inherent in the doing of the task and not separated from the noise, confusion, and group interactions prevalent in real work environments. Learning is dilemma driven rather than content driven. Situations are presented that challenge the intellectual and psychomotor skills learners will apply at home, in the community, or the workplace (Lankard 1995).