
GLOSSARY OF KEY TERMS

Assessment. Measurement of a learner's achievement or progress.

Concept. A general idea or understanding, especially one based on common or related attributes of specific instances. For example, the concept of ecological interdependence—that all living elements of an ecological system depend on the others—is based on a knowledge of interrelationships among living things in many specific systems.

Conceptual framework. An organized sequence of ideas that directs teaching towards a focused understanding.

Constructing knowledge (constructivist learning). A guiding philosophy that believes that individuals make meaning of situations for themselves through a dynamic combination of knowledge they already possess, new knowledge presented to them, social interaction, and personal reflection and experience. This personally constructed knowledge by the learner evolves throughout the learner's lifetime. (See Cheek, D.W. (1992) *Thinking Constructively about Science, Technology, and Science Education*. SUNY Press.)

Cost/benefit analysis. An examination of a program that seeks to evaluate the resources expended in relation to the outcome, often noted in financial terms.

Creative thinking. Thinking which results in connections or possibilities previously unrecognized by or unknown to the learner.

Critical thinking. Analysis or consideration based on careful examination of information or evidence. Critical thinking relies on thoughtful questioning and logical thinking skills such as inductive and deductive reasoning.

Cumulative effects analysis. A systematic process using as many known facts and factors as possible to estimate the total impact or likely result of many individual events or actions.

Developmental appropriateness. The suitability of an activity for learners of a certain age or cognitive ability.

Environmental issue. Related to, but distinguished from, an environmental problem. An environmental issue reflects the presence of differing perspectives on possible solutions to an environmental problem.

Environmental monitoring. Systematic measurement, over time, of one or more indicators of an ecosystem's stability or health.

Environmental problem. Related to, but distinguished from, an environmental issue. An environmental problem results from an interaction between human activity and the environment.

Experiential learning. Learning by means of personal experience or direct observation.

Fact/factual information. A verifiable phenomenon or association. Factual information can be consistently corroborated by standardized means.

Global responsibility. A person's accountability for the potential or actual impact of individual actions on the earth and the world community.

Goal. A desired outcome from an activity.

Informal learning opportunities. Situations in which learning can occur without formal or traditional direction from an instructor.

Interdisciplinary. A knowledge view and curriculum approach that applies methodology and language from more than one discipline to examine a central theme, issue, or experience. Related terms include *multidisciplinary* (juxtaposing several disciplines focused on one problem with no direct attempt to integrate) and *transdisciplinary* (beyond the scope of the disciplines, for example starting with a problem and bringing to bear knowledge from relevant sources).

Intergenerational responsibility. A person's accountability for the potential or actual impact of individual actions on future populations.

Learner centered instruction. Instructional methods that are driven by the individual needs of the student rather than externally imposed goals or objectives.

Learner outcomes. The intended cognitive result of an educational program.

Learning styles. The belief that individuals favor particular methods of learning (e.g., oral vs. written, self-taught vs group mediated) and can optimize their understanding when such methods are available to them within the learning environment.

Multiple intelligences. Theory advanced by Howard Gardner that classifies cognitive abilities according to eight broadly grouped aptitudes: linguistic intelligence, logical-mathematical intelligence, spatial intelligence, bodily-kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence, and naturalistic intelligence.

Objective. A statement of a specific measurable or observable result desired from an activity.

Risk analysis. Activity which seeks to predict the overall results or broad consequences and degree of impact, whether beneficial or not, of a given project or activity.

Rubric. A scoring mechanism for performance-based tests that provides model answers.

Self-efficacy. One's ability, or attitude about that ability, to be a catalyst or agent of change in one's own life and in situations involving others.

Service learning. Learning in which the student takes part in a project or activity that is beneficial to some segment of the community.

