

## Glossary

### **Abbreviations**

- AEA* American Evaluation Association, <http://www.eval.org>  
The AEA is an international professional association of evaluators devoted to the application and exploration of program evaluation, personnel evaluation, technology, and many other forms of evaluation. Evaluation involves assessing the strengths and weaknesses of programs, policies, personnel, products, and organizations to improve their effectiveness.
- AERA* American Educational Research Association, <http://www.aera.net>  
The AERA, founded in 1916 and currently in its 86th year, is concerned with improving the educational process by encouraging scholarly inquiry related to education and by promoting the dissemination and practical application of research results. See also the Divisions within AERA that focus on broad substantive or professional interests, ranging from administration and curriculum to teacher education and education policy and politics.
- CCSSO* Council of Chief State School Officers, <http://www.ccsso.org>
- DIO* Design-Implementation-Outcomes Cycle of Evidence
- IAE* International Association for the Evaluation of Educational Achievement
- MSP* With the Math and Science Partnership Program, launched in 2002, the NSF assumed important responsibilities for building the capacity to implement a key facet of the No Child Left Behind (NCLB) vision for K-12 education. The MSP program includes 4 kinds of projects: Comprehensive, Targeted, RETA, and Institute Partnerships.
- MSP-NET* The Math and Science Partnership's Learning Network, <http://hub.mspnet.org/>
- NAEP* The National Assessment of Educational Progress (NAEP), also known as "the Nation's Report Card," is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. Since 1969, assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and the arts.
- NETA* Utah State University's Network for Evaluation Technical Assistance, consisting of expert evaluation consultants who provide technical assistance to some MSP projects through USU's RETA project
- NSF* The National Science Foundation was created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense..." <http://www.nsf.gov>

<i>PI</i>	Principal Investigator
<i>R&amp;D</i>	Research and development
<i>RETA</i>	NSF's MSP Research, Evaluation, and Technical Assistance projects
<i>STEM</i>	Science, Technology, Engineering, and Mathematics
<i>TIMMS</i>	The Trends in International Mathematics and Science Study is designed to help countries all over the world improve student learning in mathematics and science. Educational achievement in about 50 countries throughout the world is assessed in the fourth and eighth grades to provide information about trends in performance over time together with extensive background information to address concerns about the quantity, quality, and content of instruction.
<i>USU</i>	Utah State University

### **Definitions of Terms**

<i>Context</i>	The specific setting a program occurs in. This includes social, political, cultural, historical, and personal factors.
<i>External Validity</i>	The extent to which evaluation findings are generalizable to other cases, settings, contexts, and times.
<i>Feasibility of the Evaluation</i>	Extent to which the evaluation is realistic, prudent, diplomatic, and frugal given the context within which it occurs. In order to claim feasibility, an evaluation plan should use practical procedures, consider the positions of differing stakeholder groups, and be efficient with a goal of providing information of sufficient value to justify the process.
<i>Impact Theory</i>	The nature of the change in social conditions brought about by program action
<i>Implementation Fidelity</i>	The extent to which a program or intervention has been implemented in a particular setting. In particular, the degree to which the actual implementation differs from the planned implementation.
<i>Internal Validity</i>	The extent to which contextual factors affect the relationship between the program (or an intervention) and outcomes. When we assess the degree to which contextual factors affect the relationship between the program and its outcomes, we are able to better determine the level of confidence with which we can attribute outcomes to the program or intervention.

<i>Measurement Validity</i>	Extent to which an instrument measures what it is intended to measure. A valid measure yields results consistent with past work using the same concept; is consistent with alternative measures that have been used to assess the same concept; is internally consistent; has an adequate degree of predictability. See definitions in section, “Characteristics of High Quality Evidence.”
<i>Meta-analysis</i>	The systematic analysis of the results of a body of evaluations and research studies of similar programs to produce an estimate of overall program effect, determine conditions under which better outcomes are realized, and examine the characteristics of evaluations that influence the kind of effects found.
<i>Need</i>	Discrepancy between a set of existing versus desired conditions a program is intended to address.
<i>Needs Assessment</i>	A systematic set of procedures undertaken for the purpose of setting priorities and making decisions about program or organizational improvement and allocation of resources. The priorities are based upon identified needs. (Witkin & Altschuld, 1995)
<i>Pilot Study</i>	Small, preliminary test or trial run of an intervention, or of an evaluation activity such as an instrument or sampling procedure. The results of the pilot are used to improve the program or evaluation procedure being piloted before it is used on a larger scale.
<i>Program Theory</i>	The set of assumptions about the manner in which the program relates to the social benefits it is expected to produce, and the strategy and tactics the program has adopted to achieve its goals and objectives.
<i>Reliability</i>	The extent to which scores obtained on a measure are reproducible in repeated administrations under the same measurement conditions; results that fail to prove reliable risk underestimation of effect. See definition in section, “Characteristics of High Quality Evidence.”
<i>Stakeholders</i>	Any person legitimately involved in or affected by a project or its evaluation, including students, their parents/guardians, teachers, other school or district staff, superintendents, state legislators, future employers, funding agencies, and others who make decisions about or are affected by a project or its evaluation.
<i>Theory</i>	An explanation of the commonalities and the relationships among observed phenomena in terms of the causal structures and processes that are presumed to underlie them.

<i>Utility of the Evaluation</i>	The extent to which an evaluation will serve the information needs of, or be valuable to, intended users.
<i>Validity</i>	The extent to which the construct under investigation was measured—“Did we measure what we thought we were measuring?” See definition in section, “Characteristics of High Quality Evidence.”

For additional information, see Cousins & Earl (1995); Cousins & Whitmore (1998); Fitzpatrick, Sanders, & Worthen (2004); Gall, Gall, & Borg (2003); Mark, Henry, & Julnes (2000); Mathison (2005); Patton (1996); Rossi, Lipsey, & Freeman (2004); Stufflebeam (2001); Torres, Preskill, & Piontek (2005); Trochim (2004); Weiss (1998); Witkin & Altschuld (1995).