BASIC APPROACHES TO EDUCATIONAL ASSESSMENT AND EVALUATION
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1. GOAL FREE ASSESSMENT AND EVALUATION: This approach was advanced by Michael Scriven and others during the 1970s. There are two basic reasons for this approach: (a) in some cases, a program does not specify and/or program personnel do not recognize what participants are to "take away" from a given program (e.g., there are no clearly stated goals and objectives); or (b) in some cases, program personnel want to know what participants are "taking away" from their programs regardless of the programs' stated goals and objectives (e.g., based on anecdotal observations of anticipated and unanticipated learning by staff). In either case, the first task is to determine the nature of this program's learning outcomes using open-ended assessment techniques (e.g., observations, interviews, phenomenological pencil-and-paper instruments), and then to determine which features of the program appear to be influencing each.

2. ASSESSMENT AND EVALUATION BASED ON PROGRAM GOALS & OBJECTIVES: This is one of the more common approaches to educational assessment and evaluation, advanced by Robert Stake and others during the 1970s. In this approach, the first task is to assess participants' learning outcomes in light of what was planned (i.e., the program’s goals and objectives). Then, the reasons for any detected discrepancy between intended and actual learning outcomes are explored through program evaluation.

3. STANDARDS-BASED ASSESSMENT AND EVALUATION: This approach has gained popularity through the 1990s as a consequence of the development of national and statewide standards for learning/teaching in school subject areas (e.g., language arts, math, science, social studies). In this approach, the first task is typically taken by a state to develop and validate statewide tests (e.g., Science FCATs) and/or alternative assessments (e.g., Florida Writes) against state standards. These are piloted, and levels of acceptable scores are developed. Then, these are administered on a statewide basis to almost all students in particular grades. Tests are commonly scored by an outside contractor, while alternative assessments are commonly scored by cadres of trained educators. Evaluation may be undertaken at the state and/or district level, where a school's performance on these tests/assessments can be rewarded or punished. Program evaluation may also be undertaken at the school level to determine what may have contributed to low scores, and to how that may be changed.

4. ENVIRONMENTAL LITERACY-BASED ASSESSMENT AND EVALUATION: This approach may begin with a working model of environmental literacy (e.g., as in MSELI and SSELI), or with a more specific set of EE guidelines (e.g., learning outcomes) derived from such a model. In this approach, the first task is to develop program- and learner-appropriate measures to assess selected features of EL or selected EE guidelines. The next step is to assess participants' learning in each area of EL using these measures. Then, the reasons for any low and/or high performance on each measure are explored through program evaluation.

5. COMBINATIONS OF TWO OR MORE OF THESE APPROACHES: It is now relatively common for an assessment/evaluation study to use a combination of two or more of these approaches in light of program interests.