



# Some Thoughts on Selecting IDEA Objectives

A u g u s t 2 0 0 2

©2002 The IDEA Center

How do we know that teaching is effective or ineffective? The typical student rating system judges effectiveness by the degree to which the instructor's methods resemble those of a "model" teacher. In contrast, the IDEA Student Ratings of Instruction system judges the effectiveness of teaching by its impact on students. Its chief indicators of effectiveness are derived by answering one question: *Do students make progress in achieving objectives selected by the instructor?*

The selection of objectives on the Faculty Information Form is a crucial activity for two reasons. First, the IDEA System evaluates teaching by assessing student progress on these *unique, instructor-chosen objectives*. Second, objectives provide guidance for selecting teaching methods; those that promote progress on one type of objective may differ from those that promote progress on other types. Differential objectives make each course a unique learning experience.

The educational literature is replete with suggestions on how to select and develop goals and objectives (e.g., Angelo & Cross, 1993; Davis, 1993; McKeachie, 1999; Walvoord & Anderson, 1998). Familiarity with this literature should improve the process of conceptualizing and defining instructional purposes. The purpose of this paper is to offer additional help to participants in the IDEA System in identifying course objectives.

Although objectives can be stated in a variety of ways, they should always focus on *expected effects on students*, not on the instructor's actions or procedures designed to promote learning. It is desirable for each instructor to develop statements or objectives as precisely and comprehensively as possible. In order to participate effectively in the IDEA program, it will be necessary to *interpret* these statements within the framework provided by the 12 objectives listed on the Faculty Information

Form. The following discussion is intended to help users differentiate meaningfully and accurately among the 12 objectives of the IDEA System.

## HOW MANY OBJECTIVES SHOULD BE SELECTED?

Although each of the 12 IDEA objectives is desirable in the abstract, it is unrealistic to think that, in a single course, students can make significant progress on all, or even most, of them. Not everything that either the instructor or the students might wish to accomplish is possible in a single course. Section II of the **Directions to Faculty** provides a classification of the 12 objectives that is intended to help you conceptualize your instructional intentions.

The teaching methods that facilitate student progress vary for the different objectives. For this reason, and because of the limited amount of time available in a given course, **most instructors will be unable to address seriously more than three to five objectives**. Those choosing more than five objectives commonly spread their efforts too thinly to impact student learning significantly in all areas.

In selecting "Essential" or "Important" objectives for a particular course, ask three questions:

1. **Is this a *significant* part of the course?**
2. **Do I do something *specific* to help the students accomplish this objective?**
3. **Does the student's progress on this objective affect his or her *grade*?**

If the answer to each of these questions is "Yes," then that objective should be identified as **E** or **I** on the Faculty Information Form (FIF). The phrase, "Of no more than minor importance," does not mean that such objectives are unimportant. It simply recognizes that such objectives are of considerably less importance than those chosen as **E** or **I**; even if

some attention is given to them, an **M** should be selected on the FIF.

## WHAT IS MEANT BY EACH IDEA OBJECTIVE?

It would be easier to describe objectives if they were mutually exclusive, but they are not. Instructors typically address more than one objective through a single approach. For example, a theme on "the meaning of happiness" may be assigned to address three objectives; developing writing skills, exploring values, and improving critical thinking. The 12 IDEA objectives have been developed over a period of 25 years, both through literature reviews and by consulting faculty who have used the IDEA system. The intent is to provide a *useful, practical* way to describe the objectives of most college courses.

A brief description of each of these objectives, together with some comments about how they may be compared or contrasted, follows. The objectives are organized into six groups on the basis of statistical and conceptual similarities. The number used to identify each objective (1-12) corresponds with that used on the Faculty Information Form.

### ***I. Basic Cognitive Background***

The first two IDEA objectives focus on the development of a basic background in the subject.

1. *Gaining factual knowledge (terminology, classifications, methods, trends)*
2. *Learning fundamental principles, generalizations, or theories*

These objectives are mainly *cognitive* in nature as distinguished from *affective* objectives, which focus on feelings or attitudes. They are closely related. Both are concerned with the acquisition of information or knowledge. They differ primarily in the level of knowledge and in the degree of generalization. *Factual knowledge* covers not only straightforward facts (e. g., when the Declaration of Independence was written; who developed the theory of games), but also terminology (e. g.. what the VII cranial nerve is called; or what "onomatopoeia" means) and classifications (e. g. stone tools produced by the Mousterian techniques are characterized by . . .). This objective stresses learning at its most basic level. Frequently what is required is that students memorize and remember the

information taught; because the emphasis is on acquiring information, comprehension is not an issue. For those familiar with Bloom's Taxonomy (Bloom, *et al.*, 1956) such learning is primarily at the "Knowledge" level of the cognitive taxonomy.

Though they are similar, it is possible to distinguish *factual knowledge* objectives from *principles and theories* objectives. There is a difference between terms that represent simple facts, e.g., the VII cranial nerve is the *auditory nerve*, and those that represent concepts, e.g., *reinforcement*, a psychological concept that is a key element in learning theory. Learning the meaning of "auditory nerve" essentially requires memorization, while learning the meaning of "reinforcement" requires comprehension, which embraces many examples. Illustrative principles or theories are Gresham's law, the categorical imperative, and the wave and quantum theories of light. Objectives concerned with understanding concepts and theories are representative of the "Comprehension" level of Bloom's cognitive taxonomy.

A primary distinction between *factual knowledge* and *principles and theories* objectives is the degree of generalization expected. To learn a fact, the student need not go beyond the fact itself; but to comprehend principles and theories the student must extend his/her understanding to multiple circumstances or examples. This is not meant to imply that the learning or memorization of facts is unimportant. A strong factual basis is essential to the mastery of principles and theories and other "higher level" intellectual skills; students cannot learn to think unless they have something to think about. For academically naive students, gaining factual knowledge is often an essential first step. On the other hand, if teaching/learning never goes beyond this level, the student will acquire a body of unused--perhaps trivial--knowledge that tends to be quickly forgotten.

### ***II. Application of Learning***

Two other objectives focus on applying what has been learned to solve problems, make decisions, or perform specialized functions. These are:

3. *Learning to apply course materials (to improve rational thinking, problem solving and decisions)*

4. *Developing specific skills, competencies and points of view needed by professionals in the field most closely related to this course*

The first of these emphasizes *applications* of principles, theories, and concepts to solve a problem or arrive at a decision. Course materials are employed to develop this *general* intellectual skill. It is appropriate in courses where applications are intended to develop problem-solving skills--analysis, synthesis, and evaluation. Decision-making represents the last stage of this process. It should be noted that the effective implementation of decisions may require additional affective or interpersonal skills depicted by Objective 5, *Team Skills* or Objective 8, *Communication Skills*.

Sometimes instructors choose this objective because their course requires that students apply course material as a means of testing their understanding. In such cases Objective 2, *Principles and Theories*, is probably a more appropriate choice. In other courses, application is employed principally to develop professional skills, and Objective 4 (*Professional Skills and Viewpoints*) should therefore be chosen. Only in courses where a *primary* goal is to develop a *generalized* skill in applying course materials to concerns or problems should Objective 3 be selected as "Essential" or "Important."

Objective 4 emphasizes the development of skills or attitudes needed by those *entering* a specific profession (e. g., calculating physical stresses, developing diagnostic skills, understanding and accepting a code of professional ethics). Such skills and attitudes should be reflected in the performance of a professional assignment, not simply by knowing a "correct" answer. Depending upon the degree of complexity, this objective could represent any of several levels in Bloom's cognitive taxonomy—"Application," "Analysis," "Synthesis," and "Evaluation." The attitudinal component is represented in the affective domain of Bloom's taxonomy (Krathwohl, *et al.*, 1964).

### **III. Expressiveness.**

Two objectives focus on learning to express one's individuality:

6. *Developing creative capacities (writing, inventing, designing, performing in art, music drama, etc.)*

8. *Developing skills in expressing oneself orally or in writing*

Creativity connotes originality, imagination, and expressiveness. While it is often associated with the fine arts and literature, it is often relevant to aspects of science, engineering, and other fields where design, research, and innovation are required. The instructional challenge is to help students to develop their creative potential. "Creativity" requires flexibility and divergence in thinking – new ways of thinking or expressing oneself; pursuing questions for which there is no single correct answer. It implies a stretching and expansion of the students' thoughts and ideas and the development of original insights. For these reasons, it often requires overcoming fear and encouraging self-confidence.

Creative capacities are important not only in the humanities, but also in science, technology, social sciences, and many professional courses (business, education, law, etc.). The development of creative capacities is expected more often in upper division courses than in lower division courses. For this (or any other) objective to be classified as "Essential" or "Important," it should be a significant emphasis in the course and there should be specific instruction or assignments designed to promote its development.

Objective 8 stresses communication skills. It is obviously relevant to composition and speech courses, as well as to many language and writing courses. It may also be relevant to other courses that use a new language (e.g., mathematics, statistics, computer science), but Objectives 1 (*Factual Knowledge*), 2 (*Principles and Theories*), and 3 (*Applications to Thinking and Problem Solving*) may be more descriptive of the purpose of such courses. Effective communication is an appropriate objective for any course designed to promote clear, grammatically correct writing and/or listening and speaking skills. However, if the objective is chosen as "Essential" or "Important," it is not enough to simply provide opportunities to exercise communication skills; there must also be deliberate attempts to improve these skills.

### **IV. Intellectual Development**

Three objectives emphasize higher-level intellectual skills:

7. *Gaining a broader understanding and appreciation of intellectual-cultural activity (music, science, literature, etc.)*
10. *Developing a clearer understanding of, and commitment to, personal values.*
11. *Learning to analyze and critically evaluate ideas, arguments, and points of view.*

Being “intellectually well-balanced” has traditionally been regarded as a sign of an educated person, especially by advocates of the liberal arts. For many years, colleges and universities offered broad survey courses to give their students opportunities to become acquainted with the content, methods, and importance of the physical and biological sciences, the social sciences, the fine arts, and the humanities. While the popularity of such courses has declined, the commitment to the ideal of providing a basic understanding of, and appreciation for, the broad divisions of knowledge has been an enduring tradition. “Understanding” is often simply the means to an end. By learning to “appreciate,” students broaden the range of activities that can be interesting and rewarding to them; at the same time, they become more “interesting” people themselves. The enthusiasm of teachers who are immersed in and enthralled with their intellectual-cultural specialty often spreads to their students. This objective should be selected as important or essential if the focus of the course is on broadening intellectual background and increasing the breadth of students’ interests and appreciations. Such courses are usually directed to non-majors, although they may serve as introductory courses for majors as well.

Objective 10 focuses on the exploration of personal values and the beliefs and priorities that guide the way one’s life is conducted. They “explain” why we make the choices we do; they describe our conclusions about life’s purposes and what life’s greatest satisfactions are. Many people have not developed a coherent set of personal values; their life decisions seem to be made by default, or by following the norms of their culture (conforming to societal expectations). Such people pursue goals that have been imposed, not chosen; for this reason, they have difficulty in finding lasting satisfaction. Except for selected moral values, there is no consensus about the values that “ought” to guide our lives. In fact, the values society places on “liberty” and “individuality” ensure that diverse value patterns are necessary in order to

accommodate the wide differences in individuals and their circumstances. Still, the opportunity to lead a personally meaningful, fulfilling, and satisfying life is enhanced if it is guided by thoughtfully chosen, enduring values, regardless of the particular values which are adopted.

Some college courses offer students the opportunity to explore alternative value systems as a means of facilitating this process. Although such courses usually are oriented around disciplinary content, their true subject matter is the student. If the emphasis is on stimulating a consideration of alternative goals and life styles, on differentiating the basic from the superficial, and on assuming personal responsibility for life choices, then this objective should be considered as important or essential.

Objective 11, critical analysis, deals with one of the most distinguishing characteristics of the educated person – *discernment*. Children accept nearly everything that they are told. But as they mature, contradictions become apparent; not everything can be equally true or valid. Educated persons learn to critically examine information, ideas, and arguments in order to arrive at their own understanding or point of view. Improving the capacity for critical thought, a high level cognitive characteristic, is regarded as a desirable, but challenging, objective in higher education. Instructors choosing this as an important or essential objective will be less concerned with subject matter mastery or the ability to apply such knowledge to the solution of practical problems than with the *capacity to reason logically* and the *ability to integrate* a series of disparate facts or assertions into a coherent conclusion. Assessment of student progress will stress logical consistency and complexity of reasoning rather than “correctness.”

The ability to critically evaluate and reason is a valuable trait in nearly every line of employment; therefore, it is expected that many upper division courses intended for majors will give some emphasis to its development. But because it is also a distinguishing characteristic of the educated person, those teaching courses intended to support an institution’s *general education* program will also find this objective relevant to their purposes.

## V. Lifelong Learning

Two objectives are concerned with the development of skills helpful in the continual pursuit of learning after the formal educational experiences are over.

9. *Learning how to find and use resources for answering questions or solving problems.*

12. *Acquiring an interest in learning more by asking questions and seeking answers.*

Educators have increasingly become aware of how quickly knowledge becomes obsolete. We live in a technological, information-based society; effective functioning in this society requires continually updating and enlarging knowledge and skills--*lifelong learning*. In recognition of this reality, many faculty members design courses to enhance students' capacities to function as independent learners. Objective 9 should be chosen as "Important" or "Essential" for courses that emphasize the development of independent learning skills. The emphasis is on skills in finding and using appropriate learning resources, including traditional library searches as well as computer-based information and information shared by practitioners and consultants. This objective is especially appropriate for courses in which students have already acquired sufficient background information and skill to permit them to identify the trends or unresolved problems that are likely to form the basis for future advances in the field.

Objective 12 also focuses on lifelong learning. Whereas Objective 9 emphasizes capacities for locating and using resources, Objective 12 stresses developing capacities for identifying salient questions. Finding answers to the wrong questions will not improve understanding, problem solving, or decision-making. This objective involves a fundamental, and often over-looked, aspect of learning, extending far beyond knowledge of how to use library resources or browse the Web. It requires a simulation of the personal and professional challenges graduates will face – challenges whose solution rests both on asking the right questions and on finding the right answers. While this objective is frequently cited as one of the purposes of general education, all faculty members who want the success of their teaching to be judged by the degree to which students acquire an "inquiring mind" should select it as "important" or "essential."

## VI. Team Skills

Objective 5 overlaps from the objectives just reviewed. For this reason, it is classified separately.

5. *Acquiring skills in working with others as a member of a team.*

From feedback provided by employers, community leaders, and alumni, institutions have increasingly recognized the importance of this objective. Its emphasis is on combining the knowledge and skills of a diverse group in ways that enhance its capacity to analyze and propose solutions to assigned problems. The development of team skills involves a complex set of attributes, including capacities for accepting and appreciating human diversity, for listening, for communicating, for compromising, and for sharing responsibility in developing creative proposals and recommendations. Instructors who emphasize the development of team skills will note the overlap with several other objectives included on the IDEA list, including Objective 8 *Communication Skills*, Objective 3 *Applications for Problem Solving*, and Objective 6 *Creative Capacities*. If the expectation is that all of these skills will be developed, together with skills involving effective interpersonal relationships, then this objective should be identified as "Important" or "Essential." Faculty members who establish student teams or subgroups for more limited purposes, such as learning communication skills or developing interpersonal sensitivities, should select less complex objectives when completing the FIF.

## CONCLUSION

Hopefully, this discussion will help you select IDEA objectives for your courses. To summarize, there are three criteria that are useful in selecting objectives:

- (1) **The objective is a significant part of the course;**
- (2) **Specific and substantive techniques and assignments are employed to help the student achieve the objective;** and
- (3) **Relevant assessments are made of student achievement of the objective.**

Objectives should not be regarded as important unless a substantial and explicit effort on the part of the instructor is directed to the achievement of that objective and unless

achievement on the objective is meaningfully reflected in the appraisal of student progress.

Frequently, there are differences between the instructor's and the students' perception of the relevance of a given objective. It is recommended that the course objectives be discussed with the students, preferably early in the term. It is desirable to let students know that they are going to be asked to rate their own progress on these objectives, and that these ratings are taken seriously. Ask them to reflect on their understanding of the course's purposes and the way in which they believe the various parts of the course fit into each of the 12 objectives. Student learning will be enhanced if they are committed to clearly formulated objectives. Thus, the opportunity to consider the relevance of the IDEA objectives to their own purposes in taking your course may, in itself, stimulate success. If student perceptions of the importance of the objectives and their relevance to various portions of the course are substantially different from yours, it may be helpful to explain your rationale for selecting (or not selecting) a given objective. A discussion of such differences will not necessarily resolve them, but it will provide a framework for interpreting student ratings of progress on the IDEA objectives. This should increase the usefulness of student feedback.

Based on interviews with a small number of students, we do not believe that holding such a discussion before the students fill out the IDEA Survey Form will bias results. Students claim that their report of progress on objectives is uninfluenced by the knowledge that the instructor selected the objective as relevant. However, progress is more likely if students and faculty are agreed on the major purposes of the course. Hence, a discussion of such purposes will not only improve the quality of responses to the IDEA form but also be beneficial to the learning process.

## **REFERENCES and READINGS ON TEACHING IMPROVEMENT**

Angelo, T. A., & Cross, K. P. (1993). *Classroom assessment techniques: A handbook for college teachers* (2nd ed.). San Francisco: Jossey-Bass.

Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of*

*educational objectives: Handbook I, the cognitive domain*. New York: David McKay.

Davis, B. G. (1993). *Tools for Teaching*. San Francisco: Jossey-Bass.

Krathwohl, D. R., Bloom, B. S., & Masia, B. B. (1964). *Taxonomy of educational objectives: Handbook II, the affective domain*. New York: David McKay.

McKeachie, W. J. (1999, tenth edition). *Teaching Tips*. Lexington, MA: D.C. Heath and Company.

Walvoord, B. E., & Anderson, V. J. (1998). *Effective Grading: A Tool for Learning and Assessment*. San Francisco: Jossey-Bass.

## **READINGS ON FACULTY EVALUATION**

Arreola, R. A. (2000, second edition). *Developing a Comprehensive Faculty Evaluation System: A Handbook for College Faculty and Administrators on Designing and Operating a Comprehensive Faculty Evaluation System*. Bolton, MA: Anker Publishing.

Braskamp, L. A. & Ory, J. C. (1994). *Assessing Faculty Work: Enhancing Individual and Institutional Performance*. San Francisco: Jossey-Bass.

Cashin, W. E. (1989). *Defining and evaluating college teaching*. IDEA Paper No. 21. Manhattan, KS: Kansas State University, Center for Faculty Evaluation and Development. (ERIC Document Reproduction Service No. ED 339 731).

Cashin, W. E. (1990). *Student ratings of teaching: Recommendations for use*. IDEA Paper No. 22. Manhattan, KS: Kansas State University, Center for Faculty Evaluation and Development. (ERIC Document Reproduction Service No. ED 339 732).

Cashin, W. E. (1996). *Developing an effective faculty evaluation system*. IDEA Paper No. 33. Manhattan, KS: Kansas State University, Center for Faculty Evaluation and Development.

Centra, J. A. (1993). *Reflective Faculty Evaluation: Enhancing Teaching and Determining Faculty Effectiveness*. San Francisco: Jossey-Bass.

Hoyt, D.P. and Pallett, W.P. (1999). *Appraising Teaching Effectiveness: Beyond Student Ratings*. IDEA Paper No. 36. The IDEA Center: Manhattan, KS.

Seldin, Peter (1999). *Changing Practices in Evaluating Teaching: A Practical Guide to Improved Faculty Performance and Promotion/Tenure Decisions*. Bolton, MA: Anker Publishing.