reported on Page 1 averages the PRO score with the average of these two ratings. Although many IDEA

methods for arriving at a summary judgment better

they are encouraged to define a process or use an index that best reflects the local situation.

Question 2: How do your ratings compare with those of other teachers? (Refer to the comparisons shown on the right hand side of Page 1 of the IDEA Diagnostic Form Report.)

Criterion-referenced standards avoid comparisons that can promote an unhealthy competitive atmosphere. Still, many institutions believe a norm-referenced (comparison-based) framework provides a better basis for making judgments about teaching effectiveness. Your report compares your average ratings to results for three different groups of classes. The first comparison group is with all classes in the standard IDEA database, and is always reported. The other two are reported only if enough classes were available to provide a stable basis for comparison. These consist of (1) all classes in the same discipline as the class in question and (2) all classes at your institution. Institutional and disciplinary norms are updated annually and include the most recent five years of data; the IDEA database is updated on a periodical basis.

More on Criterion-Referenced Standards

More on Description of Norms

3

More on Technical Considerations

Question 3: Were you more successful in facilitating progress on some class objectives than on others? (Refer to the upper portion of Page 2 of the IDEA Diagnostic Form Report.)

The first portion of Page 2 lists the 12 objectives included on the IDEA form and summarizes student ratings on those you selected as either *Important* or

Essential. The main purpose is to help you focus your improvement efforts.

The reporting format is similar to that used on Page 1. In addition to raw and adjusted scores, the report shows the percent of students making ratings in the two lowest categories (No apparent progress or Slight progress) and in the two highest categories (Substantial progress and Exceptional progress). -hand section

and compared with the three norm groups previously described (IDEA Database and, if available, Discipline and Institution). In addition to the actual converted average, the report describes the status of each relative to other classes in the comparison group:

rather than precise numbers is a reminder that ratings are neither perfectly reliable nor perfectly valid.

More on Class Objectives

Question 4: How can instruction be made more effective? (Refer to Page 3 of the IDEA Diagnostic Form Report.)

The main purpose of instruction is to facilitate progress on objectives that the instructor selects as *Important* or *Essential*. Such progress is affected by a number of factors in addition to teaching methods.² But teaching methods are also of critical importance. The chief way in which the IDEA report addresses instructional improvement requires a careful examination of the 20 methods included on the form. These items, listed on Page 3, have been grouped into one of five categories to indicate the main focus of each.³

IDEA has conducted many studies that relate ratings on

on the 12 learning objectives. Through these studies, 7 -10 methods that are most closely related to progress on each of the 12 objectives for classes of different sizes have been identified. Although there is some overlap, there are distinct differences in the methods that facilitate progress on the 12 objectives; there are

² Characteristics of the student (motivation, willingness to work hard, etc.) have an important effect on learning and can be only partially controlled by the instructor. Similarly, course management decisions related to assignments, appraisal methods, organization, etc. affect learning but are different from instructional methods, the focus of this section of the report.

Research Report #4

describes the relationship between these scores and outcomes. This study found that different combinations of the five scores resulted in six teaching styles, each of which was facilitative of progress on a different set of objectives.

A Average Scores. Averages are simply numerical averages of ratings for the class. All IDEA ratings are

- <u>Student motivation</u> (average response to the item, *I* really wanted to take this course regardless of who taught it). Students who respond positively to this item tend to make favorable ratings on items related to course outcomes. Low ratings on this item are an indication that it is desirable to devote substantial time and effort to improving student interest and involvement before substantive objectives can be successfully addressed. Ratings on this item are a Major factor in making adjustments.
- Student work habits (average response to the item, As a rule, I put forth more effort than other students on academic work). Positive responses to this item are related to above-average ratings on items related to course outcomes. This is a Major factor in making adjustments.
- Size of class (as indicated on the Faculty Information Form). In general, there is a slight tendency for students in large classes to make less favorable ratings than students in small classes. This is a Minor factor in making adjustments.
- 4. <u>Course difficulty</u>. This measure is based on the average student rating of *Difficulty* of subject matter

intellectual demands including required reading and/ or other work. In general, students in courses where the material is inherently complex or abstract make somewhat less favorable ratings of outcomes; but if the course stresses cognitive objectives, the opposite is true. This is a **Minor** factor in making adjustments. 5. <u>Effort</u>. Adjustments on the Diagnostic Form are based on average student response to the item, *I* worked harder in this course than on most courses *I* have taken after taking into account the same instructor influences used in estimating course difficulty. Although, by themselves, student ratings of how hard they worked (effort) have low positive relationships with outcomes, after other extraneous variables (student motivation, work habits, disciplinary difficulty) are taken into account,

<u>negative</u> relationship to outcomes; that is, there is a slight tendency for those who work hardest to report the least progress. This is probably because many students who make an extra effort in a class do so because they regard their academic background as inadequate. This is a **Minor** factor in making adjustments on Diagnostic Form.

across classes that differ by purpose, audience, level, size, and types of students. They recognize that

or decrease student ratings and, to the degree possible, take these conditions into account by adjusting ratings.

<u>Research Report # 6</u> provides further explanation of the IDEA system extraneous variables.

Reliability estimates of ratings in classes with fewer than 10 respondents are too low to permit dependable conclusions; therefore, they were excluded from all norm groups. The IDEA database includes all classes processed between September 1, 1998 and August 31, 2001; all regions of the country; all types of institutions; all levels of instruction; and all disciplines are included. The database includes approximately 45,000 classes, so these norms are highly stable. Norms for the discipline and for the institution are

Knowing the percent of students making ratings in the two highest and two lowest categories is helpful in identifying classes where student outcomes are bimodal (divided fairly evenly between students who profited greatly and those whose sense of progress was disappointing). Bimodal ratings often occur when a substantial portion of the class lacks the background needed to profit from the course; changes in prerequisites may be desirable, or you may want to consider the possibility of offering a separate section for those with limited backgrounds. A bimodal distribution may also reflect differences in preferred learning styles of students; in such instances, you may want to consider presenting material using multiple methods that respond effectively to those with different learning styles.

To understand the nature of bimodal ratings of progress, it may be helpful to examine the distribution of responses to items 33-35 (course characteristics) and 36-43 (student characteristics). Is there evidence of the presence of distinct groups who differ in their motivation, effort, perception of course difficulty, etc? If so, do these differences have implications for course prerequisites, for assigning students for group work, or for presenting class material?

It is suggested that you focus first on your most important objectives (those you chose as *Essential*). For each such objective, use the information in the report to judge whether improved outcomes should be a priority. A degree of urgency can be assigned to each objective based on your review of (a) raw and adjusted averages, (b) percent of students rating their progress

where the objective was selected as *Important* or *Essential*. Then apply the same process to objectives chosen as *Important*.

This process of identifying target objectives is a useful first step in developing an improvement strategy. It will help you concentrate on the most important information provided on Page 3.

Research has shown that the number of objectives chosen is inversely related to progress ratings. IDEA encourages faculty members to choose only three to five objectives as *Important* or *Essential*; those choosing more than 6 objectives typically receive lower ratings, perhaps because they are trying to do too much or because the objectives chosen were either inappropriate for the course or not meaningfully addressed. If an instructor fails to identify his/ her objectives; this usually results in an unrealistic reduction in overall effectiveness ratings (see <u>Research</u> <u>Note #3</u>).

In reviewing progress ratings on individual objectives, many faculty members are stimulated to reconsider their selection of objectives. Sometimes, disappointing progress ratings can be explained by a discrepancy

amount and/ or kind of emphasis given to the objective in class sessions and activities.

Improvements will be easier to make if you turn attention to the objectives where progress ratings were most disappointing to you. Use Page 2 of the report to identify the number (21-32) corresponding to these objectives. Locate these objectives in the column

objective, examine the last column on Page 3

based on the relative frequency with which you used the method compared with that for other classes where the objective was chosen as important or essential. For the methods closely related to progress ratings on a given objective, one of three actions are

your frequency of using the method was <u>substantially</u> <u>below</u> that for classes of similar size and level of

method was comparable to that for other classes of similar size and level of student motivation. (3)

the method was <u>substantially above</u> that for other classes of similar size and level of student motivation.

To identify the classes with which your results were

into 20 groups, first by considering size (less than 15; 15-34; 35-49; and 50 or above) and then, within each size, the average response to Item 39 (*I really wanted to take this course regardless of who taught it*) below 2.62; 2.62-3.05; 3.06-3.63; 3.64-4.08; and 4.09 or higher). Your results were compared with those for classes whose size and average for Item 39 were most similar to yours.

Make a list of the methods identified by each of these

techniques facilitative of progress on your objectives that you are currently employing with appropriate frequency. Be careful to retain these methods regardless of other changes you may make in teaching strategy. Methods

that facilitate progress on the objectives you are examining but which you used relatively infrequently. The inference is that, by increasing your use of these methods, you would be more successful in facilitating

typical frequency; since they are related to progress on objectives where you seek improvement, increasing your frequency of use may have positive effects upon outcomes.

The Professional and Organizational Development (POD) organization, in cooperation with IDEA, has developed <u>POD-IDEA Notes</u>, providing detailed suggestions improving your use of these methods; references to relevant professional literature are cited for each method.

IDEA continues to conduct an active research program designed to learn more about how course characteristics and outcomes are related. One of these

The three characteristics rated (amount of reading; amount of other work; and difficulty) each assess, in part, the level of academic challenge presented by the class. Research conducted at IDEA as well as elsewhere has confirmed that there is a positive (though relatively slight) relationship between

For each item, the distribution of responses (number of students choosing each alternative), the average rating, and the standard deviation of ratings (a measure of variability) are provided. Faculty members are not expected to achieve high ratings on every item. Attention should be concentrated on objectives (items 21-32) chosen as Important or Essential and on methods (items 1-20) that are closely related to progress ratings on these objectives (identified on Page 3 of the report) where high ratings are associated with favorable interpretations. High ratings on Items 40-42 are also regarded as favorable. For the other items (33-39; 43), averages are descriptive of the course or its students but are not useful in making evaluative judgments. Their relevance depends on the nature of the class (its objectives, available learning opportunities, etc.).

Standard deviations of about 0.7 are typical. When these values exceed 1.2, the class exhibits unusual