GUIDEBOOK
For Evaluating Teaching
PART II:
Collecting Evaluative Information About Teaching (Student Ratings)

Larry A. Braskamp
Dale C. Brandenburg
Eileen Kohen
John C. Ory
Paul W. Mayberry

Abstract

Part II of the **Guidebook** *builds on the rationale described in Part I and provides some specific applications. The first section lists those sources — method combinations typically employed for collecting instructional evaluation information. The remainder of Part II is a detailed discussion of student ratings of instruction and their role in this comprehensive process.*

Section 5: Collecting Information with Various Source/Method Combinations

Any number of combinations of source and method can be employed for collecting evaluative information described in this guidebook. The ways are depicted in Exhibit 3. The combinations include five sources — students, colleagues, self, alumni, and records — and four methods — ratings, written appraisals, achievement tests, and interviews.

Not all ways are equally appropriate to evaluate different components of instructional performance. Exhibit 3 is included as a guide in selecting one or more ways to evaluate selected components of instruction given the purpose for which the component is to be evaluated.

In the following pages, the presentation is organized around sources. A brief introduction to the importance of each source, examples of methods, a brief review of the technical quality of the information collected by a method from a source, and suggestions for using methods or combinations of methods, listed separately for personnel decision making and for improvement are given.

Section 6: Students as Sources

Students as sources provide an important and unique perspective, since they are the primary recipients of instruction. Student evaluations can include both descriptions and judgments of value or worth. Students are good sources when they are describing student-instructor relationships, their views of the instructor's professional and ethical behavior, their workload, and what they learned in the course. As judges, they can report on the instructor's ability to communicate clearly, but they are not in a good position to judge the relevance and recency of the course content and knowledge and scholarship of the instructor.

Exhibit 3. Components which can best be evaluated for improvement and personnel decisions by each source/method combination.

Source/Method	Purpose of Evaluation: Improvement	Purpose of Evaluation: Personnel Decisions	Component
Students			
1. Ratings			
a. Global ratings		A	A=Overall Instructor
b. General ratings	B,C	B,C,D	Competence
c. Specific ratings	B,C,D,E		
2. Written appraisals	B,C,D,E,F		B=Teaching Skills
3. Interviews	B,C,D,E,F		C=Relationships with Students
4. Achievement tests	F	F	D=Course Structure and Organization
Colleagues			E=Course Materials
1. Ratings	B,D,E	A,D,E	F=Student Learning
2. Written appraisals	B,D,E,F,G,H	A,D,E,F,G,H	G=Course Development
Alumni			H=Advising
1. Ratings	B,C,F	A,F,H	
2. Written appraisals	B,C,F	A,F,H	
Self			
1. Ratings	B,C,D		
2. Written appraisals	B,C,D,E,F,G,H	B,C,D,E,F,G,H	
Records	D,E,G,H	A,D,H	

 While developing this guidebook, the authors were members of the Measurement and Research Division, Office of Instructional Resources, University of Illinois, Urbana, IL 61801.

Exhibit 5. Reliability of Different Types of Rating Scale Items.*

Type	Examples	Reliability[1]	Reliability Quality Rating
A. Global	1. Rate the Instructor (Excellent-Very Poor, 6 pt. scale)	a. Single class administration: .8 to .9 for 1 to 2 items (4,12)[2]	High
	2. Rate the Course in General (Excellent-Very Poor, 6 pt. scale)	b. Average across four administrations: .8 to .9 for 1 item (12)	High
B. General Concept (Dept. "Core")	1. The instructor seemed well prepared for classes (Yes, always-No, seldom; 5 pt. scale)	a. Single class administration: about .80 for minimum of a 5 item subscore (4,12)	High
	2. The course was (Organized-Disorganized; 5 pt. scale)	b. Average across four administrations: about .80 for a 5 item subscore (12)	Fairly High
C. Specific (Instructor-Selected)	1. How often did the instructor review material? (Too much-Not enough; 5 pt. scale)	a. Single class administration: range of .6 to .8 for minimum of a 5 item subscore (4,12)	Moderate
	2. How beneficial were the homework assignments? (Very beneficial; Just busy work 5 pt. scale)	a. Average across four administrations: range of .5 to .8 for a 5 item subscore (12)	Moderate to Low

[1] All results assume a class size of 20 students
[2] Numbers for references found in bibliography
*Exhibit 4 is not included in this text.

Information from students can be collected in a number of ways. Four common methods are:

1. Rating scales
2. Written appraisals
3. Interviews
4. Student achievement tests.

Section 7: Method of Collecting Data from Students: Rating Scales

Rating scales include student rating forms or surveys administered to students in class, and any type of paper and pencil instrument on which students indicate their response to items on some numerically-based scale. Their use is common on the University of Illinois campus because they are most efficient for collecting information from students.

Technical Quality

The technical quality of student ratings encompasses both the reliability and validity of ratings. **Reliability** refers to the extent the employed measurement procedures provide information that is free from biases due to sampling of students, courses, and time of administration. There are two different types of reliability:

1. Agreement: The extent of agreement among students within a class on rating the instructor and course.
2. Stability: The extent to which the same students using the same rating form rate the instructor and course similarly at two different times.

The reliability of data obtained from rating scales is dependent on the type of item used in the student rating form as shown in Exhibit 5. (See third column.) Because higher reliability is recommended for personnel decisions, each item type is not equally appropriate for personnel purposes. Global items are the preferred type for personnel whereas specific diagnostic type items, even though their reliability is lower, are recommended for improvement because of their increased informational value.

A summary of generalizations based on the research on the reliability of student ratings is presented in Exhibit 6. These generalizations are particularly important when ratings are used for personnel decisions.

The other major aspect of technical quality is **validity**; i.e., do ratings measure what they are intended to measure? The validity of ratings must take into account two issues: (1) to what extend do factors not under the control of the instructor bias student

Exhibit 6. Generalizations about Reliability of Student Ratings

1. Student agreement on global ratings is sufficiently high if the class has over 15 students. (12,16,17,26,28)
2. Students are consistent in their global ratings of the same instructor at different times in the course. (9)
3. An instructor's overall teaching performance in a course can be generalized from ratings from five or more classes taught by the instructor in which at least 15 students were enrolled in each class. (12,23)
4. The same instructor teaching different sections of the same course receives similar global ratings from each section. (25,30)

Exhibit 7. Factors that influence student ratings of the instructor or course.

	Factor	Effect	Recommendation for Use
1.	Administration		
	a. Student Anonymity	Signed ratings are more positive than anonymous ratings (18, 37)	Students should remain anonymous
	b. Instructor in Classroom	If the instructor remains in the room, ratings are more positive (18)	Instructor should leave classroom
	c. Directions	If stated use is for promotion, ratings are more positive than if for improvement (8, 18)	Indicate which items are used for which purpose
	d. Timing	Ratings administered during final exam are generally lower than given during semester (20)	Administer during last 2 weeks of class and not last day of class or during final exam
	e. Midterm	Unreliable if students can be identified	Use ofjective items only, anonymously collected
2.	Nature of Course		
	a. Required/ Elective	Students in elective courses give higher ratings than in required courses (5, 17)	ICES campus norms partially account for status
	b. Course Level	Students in higher level courses tend to give higher ratings than in lower level (17, 26)	Required/elected norms partially correct for this
	c. Class Size	Students in very small (under 10) and very large (over 150) courses tend to give higher ratings than students in the other courses. (10, 17, 28)	Should be taken into account, if classes are small administer surveys in every course.
	d. Class Size (less than 6 students)	Unusually high ratings (12)	Use cautiously for personnel decisions
	e. Discipline	Lower ratings are given in courses in science and highest ratings are in courses in Applied Life Studies and Education (10, 31)	Use both university and department norms and department core items if available
3.	Instructor		
	a. Rank	Professors receive higher ratings than teaching assistants. (5, 10, 24)	ICES campus norms partially account for rank (professorial and TA)
	b. Sex of Instructor	Inconsistent results (2, 19, 30)	Generally not needed to be taken into account
	c. Personality	Warmth, enthusiasm are generally related to ratings of overall teaching competence (15)	Not to be used for personal decisions
	d. Years Teaching	Ratings of instructors increase during first 10 to 12 years of teaching and decline somewhat thereafter (10)	Needs to be considered with type of course taught
4.	Student		
	a. Expected Grade	Students in classes with higher expected grades give higher ratings than those in classes with lower expected grades (9, 14)	Interpretation is difficult. High ratings might be a "reward" for an expected easy grade, but they may also mean that good grades are expected because much has been learned from a good teacher.
	b. Prior Interest	Prior interest generally is associated with higher ratings (25, 32)	Confounded with many other factors, and thus difficult to interpret
	c. Major/Minor	Majors tend to give more positive ratings than been obtained (2)	Complexity of the relationship prevents any trustworthy conclusions
	d. Sex	Small effects but complex relationships have been obtained (2)	Complexity of the relationship prevents any trustworthy conclusions.
	e. Personality Characteristics	No meaningful and consistent relationships (1)	Does not need to be considered for personnel decisions
5.	Instrumentation		
	a. Placement of Items	Specific items placed before global items has a minimal effect on overall ratings (33)	Global items can be placed at either the beginning or end of a survey
	b. Number of Response Alternatives	Six point response scales yield higher item reliabilities than five point response scales (29, 31)	Global items should use more than five point response scales
	c. Negative Wording of Items	Overall ratings of the course and instructor are not significantly affected by the number of negatively worded items (33)	Both negatively and positively worded items can be
	d. Labeling All Scale Points Vs. Labeling Only End Points	Labeling only end points yields slightly higher means (22)	Response format used should be consistent

ratings, and (2) Do student ratings correlate with other measures considered to be defensible indicators of effective instruction?

Research on factors not under the control of the instructor that influence student ratings is voluminous. Unfortunately the results are not always consistent and the interactive effects of the factors need to be taken into consideration. However, some generalizations are worth noting, although they may not always pertain to the specific course or instructor.

These factors and their influence are summarized in Exhibit 7. These generalizations are particularly relevant for personnel decisions, since an instructor doing evaluation for self improvement can easily collect more information or only use the collected information as a "warning" to potential problems.

Given these generalizations, it is prudent to interpret student ratings of the instructor and of the course with an understanding of the contextual factors that may influence the ratings. For example, students may give low ratings to some courses in a department regardless of the instructor. In addition, several factors can be confounded which interferes with any clear interpretation of the influence of any one factor. For example, teaching assistants may be teaching more required and larger classes than senior faculty and thus teaching assistants receive lower ratings because of the confounding effects of required/elective status of the course, rank of instructor, and class size.

Several generalizations can be made about the second issue of the relationship between student ratings and other measures or indicators of teaching competence. These generalizations displayed in Exhibit 8 point to two major themes: First, student ratings correlate with other measures of competence, and thus they have sufficient validity to warrant their use for both personnel decisions and improvement purposes. Second, global ratings by students correlate more highly with student learning than do diagnostic ratings, and thus global ratings are recommended for personnel decision making.

Examples of Rating Scale Surveys

A number of different rating scale surveys are currently being used. They include a single set of 20-30 items used by every instructor in a department, college or university. The items may tap student assessments of what they learned (i.e., product) or student descriptions and judgments of how the teacher behaved or organized the course (i.e., process) or both product and process. The surveys may be very individualistic; i.e., instructor selects items either from an established pool of items or writes them from personal experience. If a pool of items is available from which instructors have the opportunity to select those items which are considered most relevant for evaluating a given course, the pool is called a "cafeteria system." The Instructor and Course Evaluation System (ICES) used at the University of Illinois is a cafeteria system. The ICES item pool includes three basic item types — **global, general concept,** and **specific.** Items are classified into types by the amount of inference student raters make in answering a given item. Global items require high inference, since students need to make judgments and generalizations from experience in the course. For example, "rate the instructor" requires students to make a considerable amount of inference. On the other, specific items are essentially descriptive and are diagnostic; e.g., "Were written assignments returned promptly?" General concept items pertain to areas of instruction and require students to make some inference before they answer the item.

The ICES system is designed to take into account the two major purposes for the collection of student ratings: administrative data for personnel decisions and feedback for course improvement. The first purpose is satisfied by the inclusion of three global items (Rate the Course Content, Rate the Instructor, and Rate the Course in General) on every ICES survey form. The second purpose is satisfied by a large catalog or pool or items from which instructors have the opportunity to select items they consider best meet their information needs.

Suggestions for Using Student Ratings. The purpose of the evaluation needs to first be determined since the purpose influences the type of student ratings items to be selected. Although the dual purposes of self improvement and personnel decisions can lead to conflicts, a strategy can be designed whereby many potential conflicts can be alleviated, if not eliminated. This

Exhibit 8. Relationships Between Student Ratings and Other Measures of Effective Instruction

High Positive Correlations Between ...

1. Student and alumni ratings of overall instructor competence. (7,35)

Moderate Positive Correlations Between ...

2. Student overall ratings of instructor and student learning. (6,11)
3. Student overall ratings of the course and student learning. (6,11)
4. Student learning and student ratings of teaching skills of instructor. (11)
5. Student overall ratings of instructor and instructor overall self-ratings. (3,6,13,27)
6. Student overall ratings of instructor competence as measured by ratings, written comments to open-ended questions, and interviews (34)

Low Positive Correlations Between ...

7. Student learning and student ratings of student/teacher interaction, feedback, and evaluation. (11)
8. Student learning and student ratings of course structure and organization. (6,11)
9. Student ratings of course difficulty and ratings of instructor's teaching skill. (11)

Low Negative Correlations Between ...

10. Student ratings of course difficulty and student ratings of course structure and instructor-student report. (21)

Negligible Correlations Between ...

11. Student ratings of course difficulty and student learning. (11)

Exhibit 9 Item type and usefulness.

	Item Type	Usefulness for Personnel	Usefulness for Improvement	Recommended Distribution to:
1.	Global			
	Rate the Course Content	Good	Poor	Instructor,
	Rate the Instructor	Very Good	Poor	Departmental Administrator, and
	Rate the Course in General	Very Good	Poor	Promotion/Tenure Committees
2.	General Concept	Good	Good	Instructor and to Others Depending upon Policy
3.	Specific, Diagnostic	Poor	Very Good	Instructor Only

strategy is outlined in Exhibit 9. It is based on the principle that different types of items in our ICES system can be used for different purposes. Since both types of items can be included in a single ICES form, both purposes can be met. To implement this strategy, several guidelines for each purpose are recommended.

Using Student Ratings For Personnel Decisions

1. Student ratings should not be the sole piece of evaluative information as a basis for judging instructor competence.
2. Summative or global ratings are more appropriate than highly diagnostic items to evaluate overall instructor competence and the course in general.
3. Requiring student ratings of every course every semester may result in "overkill" because students may not take the evaluation seriously. Rather a random or representative selection of courses is recommended, especially for faculty who have earned tenure.
4. If the ratings are to be used for personnel purposes, this use is to be included in directions given to students.
5. Administering survey forms sometime during the last two or three weeks of the semester is preferred to administration immediately after the final exam or during the final exam period.
6. Instructors may distribute the form and use a standard set of directions. Then it is recommended that they leave immediately and provide at least ten minutes of class time for the students to complete the form. A student can collect the forms and place them in campus mail for processing.
7. The credibility of information is tied to the proportion of students completing the survey. At least 80 percent of the students should be available on the day on which the student surveys are completed.
8. Student evaluation forms are not to be returned to the instructor until after the final grades have been submitted so that students do not perceive any threat of retaliation from the instructor.
9. A department may wish to establish a departmental core (i.e., a set of items used by all departmental faculty) for all their instructors to provide further comparative information about components of the course. Since core items are normed for each department, comparisons within a department can be obtained for these items as well as the three global items.
10. At least 5 sets of evaluations, each based on at least 15 enrolled students, are recommended before student ratings are to be used for major personnel decisions. If the average number of students is 10 or less, the number of evaluations should be at least 8. If ratings are given in every course every semester, a small number of items (six to twelve) may be sufficient.
11. A profile of student rating including item statistics such as means and comparisons with other courses for each course can be used as a cumulative record. Differences in student ratings due to such extraneous factors as class size and type of course can be noted by such a listing.
12. If instructors are to be compared with others, factors out of the control of the instructor need to be taken into account in the interpretation of the ratings. In the ICES systems, two factors are used in establishing norms — faculty status (teaching assistant and professional rank) and elective/required course status. In this comparison, an instructor is compared with other instructors classified into one of six groups. Any interpretation of normative (i.e., comparative) results must be done cautiously, since other factors not included in these norms may be important. Other faculty who have first-hand experience with a course can generally provide additional information which can be used in the interpretation of an instructor rating.

Using Student Ratings For Improvement

1. Specific and diagnostic items are the most appropriate items, because they attempt to measure specific teacher behaviors or course characteristics. These items are included in the **ICES Catalog** (ICES Newsletter Number 1) classified under the following categories: Course Management, Student Outcomes of Instruction, Instructor Characteristics and Style, Instructional Environment, Student Preferences for Instructor/Learning Style, and Specific Instructional Settings.
2. A specific area or problem of instruction can be investigated by selecting a number of items pertaining to that area or problem. One caution: If instructors concentrate solely on weaknesses, then students may be more negative about the course in general than if a more representative sample of items are selected.
3. Student ratings given early at the midterm of a semester can be used to make changes during the current semester. However, if an instructor receives feedback before grades are determined, negative feedback needs to be viewed as constructive criticism and not negatively affect the working relationship between the students and instructor. Instructors, by discussing the

evaluation with students in class, can respond to criticisms and also demonstrate to the students that their feedback is being taken seriously.

4. Student responses to specific and diagnostic items are recommended to be sent only to the instructor and not be distributed to others without the consent of the instructor.

5. The ratings may be more fully utilized if the instructor works with a faculty colleague or a professional staff trained in faculty evaluations and development. The instructor can learn ways to change and improve as well as discuss the results in a supportive atmosphere. A colleague who serves as a counselor generally should not also be responsible for making personnel decisions since this may result in a serious conflict of roles. Openness and trust are essential for a serious examination of strengths and weaknesses.

Conclusion: Part II

The majority of Part II was devoted to our analysis and recommendations for using student ratings of instructions as **one** strategy in the evaluation of teaching. Readers are urged to review Part I and Section 5 of this Part to understand our comprehensive perspective. Additionally, readers should note that other strategies listed in Exhibit 3 will be given specific consideration in Parts III and IV. Part III will be published in the June 1984 issue of **NACTA Journal.**

Part II — Bibliography

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Field Study Opportunities A Unique Learning Experience

Mark E. Headings

Introduction

Creative instruction involves seeking, discovering, and implementing effective new approaches to learning. This can include innovative and experiential alternatives or supplements to conventional classroom instruction. The acquisition of knowledge should be a positive and enjoyable experience for the student in order to maximize the knowledge gained and its retention. Students differ in how they learn best; however, for some it is through experiences and applied activities in contrast to primarily theoretical instruction. The approach used at The Ohio State University Agricultural Technical Institute combines theoretical instruction and applied activities ("hands on" experiences). The latter are obtained through course laboratory activities, practicums, internships, independent and group studies, and more recently through international field study (or study tour) opportunities. Study tours to Ecuador, Spain, and Andros Island, Bahamas, are offered as college credit courses and give students the option to participate on either a credit or noncredit basis.

Planning a Field Study

Preparation for a successful field study (especially in a foreign country) requires a considerable amount of time, hard work, and advance planning. Many details need to be dealt with before embarking on such an undertaking. A person considering the leadership role for a field study group should first identify the desired topic of investigation within his/her area of expertise. One then needs to check possible locations for conducting such a study as well as the potential arrangements for food, lodging, and transportation for a group. Other questions which need to be answered are: (1) where does one obtain permission to conduct the proposed study at a selected location and what are the regulations (i.e., is a permit required), (2) what are the types and quantity of equipment and supplies necessary for such a study, (3) what time of the year is best to conduct the field study, and what time fits the schedules of the prospective participants. (4) is there sufficient student interest in your selected topic area and in the location selected that they will want to participate, (5) can the students afford the cost of transportation, food, and lodging, and (6) will the college you represent provide course credit for those participants who desire it?

The leader should travel to the selected study site before taking a group of students there. This allows

Headings is an assistant professor of Entomology and Chairman of the Agricultural Businesses Division at The Ohio State University Agricultural Technical Institute, Wooster, Ohio 44691.