EVALUATING COMPETENCE OF COLLEGE TEACHERS

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The college teacher is increasingly being challenged to account for his stewardship in the classroom. This challenge involves two closely related, interdependent facets: teacher improvement and teacher evaluation. The challenge is complicated by the fact that there is no widely accepted definition of teaching competence or standard of performance for college teaching.

Just what is expected of the college teacher: We can tell when he meets his classes, but how is he or his public to know when he is performing satisfactorily? And what are his guidelines and helps for improvement?

Is the evaluation of his teaching competence to be left at the mercy of the "gut feeling" of his administrator? or the hearsay of students and colleagues, or regents and legislators and self-appointed public spirited persons?

Teacher improvement implies the need for a satisfactory system for evaluation; and it has been postulated that an evaluation of competency among college teachers requires: (1) A statement of professional standards which will constitute a definition of teaching competence. Such criteria must have social validity and be mutually understandable and agreeable to both teacher and evaluator. (2) Any valid evaluation system requires an instrument which can make discriminating measurements to assess teaching competence and it must be based upon the accepted definition. (3) Trained observers to objectively and accurately use the instrument in making the assessment of individual teacher's competence through classroom observations and through structured interviews.

The IOTA plan was investigated to meet these requirements. IOTA is the acronym for the Instrument for Observation of Teaching Activities which grew out of the publication **Teacher Competence: Its Nature and Scope**, by the California Teachers Association, 1957. The IOTA program has been found to be most effective for teacher improvement in elementary and secondary schools.

This IOTA program had as its ultimate purpose the improvement of instruction and was not to be used for teacher evaluation for purposes of dismissal, retention, promotion or salary adjustment. The IOTA is based on two vital premises, namely:

1. Teachers really want to improve their competence.
2. The improvement of teaching is essential and is possible.

Inasmuch as teaching is a professional task, the teacher has primary responsibility for the improvement of his teaching competence. It is possible because teaching competence can be defined, and once defined it can be measured. However, this measurement must be objective and criterion-referenced, rather than norm-referenced; it must be analytical, not comparative. This means that teachers are not to be compared one to another but are measured against a performance standard that has been developed by those in the profession – teachers and administrators working together. IOTA provides performance guidelines called scales, which must be acceptable and understood both by the teacher and his observer (or evaluator). These guidelines deal with specific observable teaching behaviors; all information gathered is to be objective, verifiable and analytical.

A committee of the National Association of Colleges and Teachers of Agriculture joined a broadly based task force of teachers and administrators to modify the IOTA program for college teaching. For the definition this task force prepared THE ROLE OF THE TEACHER IN HIGHER EDUCATION and defined the seven roles of the teacher as: (1) Director of Learning, (2) Counselor and Advisor, (3) Mediator of the Culture, (4) Link with the Public, (5) Member of the Faculty, (6) Member of the Teaching Profession, and (7) Member of an Academic Discipline. There are some 123 individual statements that delineate the meaning of these seven roles. A brief explanation of each of these seven categories of teaching competence follows:

1. As a director of learning the college teacher plans learning experiences effectively providing such things as motivation and student involvement in a classroom atmosphere for mastering the applicable body of knowledge. Appropriate evaluation procedures are employed so that the student can know where he stands in relation to the course material.
2. The role of the teacher as a counselor and advisor is one in which he assists the student in defining and reaching realistic goals.
3. As a mediator of the culture the teacher helps students acquire and understand the values accepted in our democratic society such as developing respect for the dignity of all persons and developing educational experiences to develop the insights and skills needed to work for the solution of social, economic, scientific and ethical problems.
4. The teacher serves as a link between the public and his discipline and his institution.
5. As a member of the faculty the college teacher helps define overall objectives, develop curricula and cooperates in the continuing evaluation of his total college program.
6. The sixth area for the college teacher is as a member of the teaching profession. He supports its social importance. He not only seeks to upgrade professional standards and ethics but also takes responsibility for his own growth as a professional teacher.
7. In the last area the teacher is a member of an academic discipline. He demonstrates scholarly knowledge and skill in his area of specialization and participates as a professional within his discipline.

The criterion or definition must have social validity; it must have the general endorsement of the profession; it must reflect the assignment of the teacher and be acceptable to him and to those who share in this important work. The social validity of this definition was supported (achieved) in two ways:

(1) Each of the individual statements used in defining these roles was submitted across the nation to about 100 teachers and administrators, some of whom had had contact with the IOTA program. Social validity was determined by the endorsement of 60 respondents on a Likert-type scale whose responses indicated strong approval or disapproval.
(2) Further, the definition was designed by educators in the first place.

Based on this definition, an instrument was then designed. This instrument consists of 28 teaching activities or scales, each of which includes five levels of teacher performance. Thirteen of these scales relate to classroom observation and 15 scales utilize the verifiable data to be obtained from a structured interview.

A scale consists of a set of 5 statements, or items, each describing in behavioral terms a level of competency ranging from "expert" to "far below standard" for each of the specific teaching activities.[1] Based on the data recorded concerning activities observed in the classroom or the data obtained from the interview, the appropriate scale is applied in the assessment of teaching competence.

The classroom observation is scheduled at a time convenient to the teacher. It is preceded by a brief pre-conference in which the teacher describes his objectives for the class session. The observation is followed by a brief post-conference in which the observer can receive clarification of any factors related to the classroom observation.

At another time, the teacher is interviewed with specific questions that will supply the evaluator with verifiable information on which the interview scales can be assessed.

The observer/interviewer must be trained in the objective use of the instrument. He could be a department chairman, cooperating teacher, consultant or any other trained person who jointly shares with the teacher the responsibility for the quality of instruction.

Each educational unit that uses the IOTA is encouraged to prepare its own scale descriptions which not only allow for local interpretation and adaption, but describe the performance of what is considered to be an expert teacher. This helps the teacher to understand the intended meaning of individual scales and what might be expected of him. It serves as a comprehensive definition of expected teaching performance in the local setting.

As with any other program, or machine or tool, its successful use depends on the users knowing how to use it. Since do-it-yourself kits for IOTA are not available, workshops have been

designed to fulfill this need and provide the necessary training for teachers and evaluators to properly use the program.

An IOTA workshop is not a spectator sport, but consists of total involvement in large and small groups as well as individual activities.

The workshop has three major segments:

First, a study of the definition of teaching as outlined in the **Role of the Teacher in Higher Education**, covering the seven areas of teacher competency.

Second, a study of the **Instrument for the Observation of Teaching Activities** comprised of five items describing levels of competency in each of the 28 scales for the evaluation of teaching competence.

Third, workshop participants receive training in objectivity in collecting, recording and classifying verifiable data through observation of teaching activities, and applying the data to the instrument. Participants get training in conducting structured interviews. The workshop also provides unusual opportunities for communication concerning the philosophical and operational levels of teaching. The IOTA instrument and the workshop experiences provide the teacher with a means of assessing his own competence in classroom instruction for the purpose of professional self-improvement. It has a strong thrust in the direction of self-assessment and self-improvement.

This definition and instrument were field tested in a NACTA-IOTA Workshop at Arizona State University February, 1972. Another IOTA workshop is being planned in connection with the next NACTA Annual Meeting at State University of New York, Agricultural and Technical College, Cobleskill, New York, June, 1973.[2]

In summary, a program has now been devised defining the role of the college teacher, together with an instrument to measure his teaching competence and provide impetus for the improvement of instruction. The IOTA program for improvement of instruction is based upon the concept that teaching is a professional task, and that significant instructional improvement requires the cooperative endeavor of teachers and administrators working cooperatively and scientifically toward this end.

Those who experience the IOTA workshops are provided a means of assessing their own competence in classroom instruction, in addition to motivation and guidelines for their own professional improvement.

1. AN EXAMPLE OF AN IOTA SCALE
   5. SKILL IN CLASSROOM PRESENTATION
      The teacher:
      A. Makes presentations that tend to lack organization, applicability or substance.
      B. Makes organized articulate presentation, utilizing a variety of appropriate styles and media.
      C. Makes appropriate presentation that is well planned and delivered with appropriate use of media.
      D. Makes organized presentation with flexible style of delivery.
      E. Makes instructional presentation offering little or no variation in delivery system.

2. ANNOUNCEMENT
   A NACTA-IOTA Workshop will be held at State University of New York, Agricultural and Technical College, Cobleskill, New York, June 8-13, 1973; Registration Fee: $80.00.
   Since for planning the number of participants must be known, a $25.00 deposit before March 31, 1973 will be necessary. Make out checks or money orders to National IOTA Program and mail to:
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NACTA Journal Manuscript No. 11/8/72/13

A COMPLEX PROBLEM: EVALUATING INSTRUCTION

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Perhaps it is only a Pavlovian knee-jerk response to the public demand for accountability from educational institutions. Perhaps it is a sincere desire to evaluate instruction only for the altruistic purpose of improving that instruction. Whatever the reason, institutions are increasingly faced with the task of implementing worthwhile measurement devices for the teaching-learning process.

Barriers to the task are a natural distrust and fear by faculty of any measuring device and a lack of confidence by administrators in any method which forces qualitative data into quantitative molds.

One such evaluation at the Department of Journalism and Mass Communication at Iowa State University (Ames, Iowa) produced data which reflect the complexity of the problem of designing effective measurement instruments. Sixteen teaching members of the staff which serves an undergraduate enrollment of approximately 400 students responded to a questionnaire on instructional activity styles, learning effectiveness and the social-emotional climates in their classrooms.

Years of Fruitless Research

Many educators say that 50 years of research have brought us very little closer to a sound response to the fears of faculty and distrust of administrators in evaluation techniques or instruments. Business and industry, governmental agencies, the armed services, religious orders and most schools, despite lack of conclusive research support, now use instruments of different kinds to judge the production of one employee against another or against a specified performance standard. All of these instruments rely to varying degrees on judgments subject to human fallibility, bias and error. By its very definition, evaluation is subjective.

Still, it is becoming more imperative that the educational process and the participants in the process be evaluated.

In the Iowa State study, instructors were asked to indicate the amount of time they spent in each of nine teaching activity styles. The particular styles were the most appropriate ones selected from a list of 14 used in a 1969 study of elementary and secondary schools by Martin N. Olson, associate director of the Institute of Administrative Research at Teachers College, Columbia University.

The ISU instructors said they use the following styles in these class-time percentages:

Lecture	24.4%
Laboratory	13.9%
Individual work	12.8%
Discussion	12.4%
Small group work	11.0%
Movies, slides, etc.	9.2%
Question/answer	6.0%
Tests, evaluation	3.9%
Demonstration	3.6%

Ranking of learning effectiveness for each style was also made by staff members on a five-point scale: 5 excellent, 4 very good, 3 good, 2 average and 1 poor. The results:

Lecture	2.4%
Laboratory	3.9%
Individual work	4.4%
Discussion	3.6%
Small group work	3.7%
Movies, slides, etc.	3.8%
Question/answer	3.2%
Tests, evaluation	3.0%
Demonstration	3.6%

Because responses were generally clustered and levels of variance were narrow, only the mean responses were used to correlate teaching activity styles and learning effectiveness. A