This paper describes a training program for graduate teaching assistants (TAs) at two universities. At the University of Illinois, Urbana, TAs from several departments met for seminars during the year, while at Lehigh University, Pennsylvania, the seminars were conducted before the semester began and each department's TAs met separately. Both courses consisted of six two-hour seminars whose topics included (1) lesson planning, (2) writing effective exam questions, (3) teacher-centered and learner-centered teaching methods, and (4) self-evaluation methods. Incentive for attendance was secured by offering graduate credit, requiring the course for further employment as a TA, or through offering a stipend. Surveys indicate that participants felt they would gain more if seminars were offered both before and during the semester. Also participants expressed a desire for interaction with TAs from other departments as opposed to working exclusively within their own. Directors should be aware that specific subject content courses require additional training as teaching assignments change, whereas seminars in general teaching approaches are applicable to subject matter areas. Of utmost importance is securing a director who is a good teacher or is experienced in teacher training. Whatever the approach, the training of TAs represents a department's commitment to foster good teaching and gives graduates tangible evidence of teaching competence. (KC/MJB)
AN OVERVIEW OF A TEACHING ASSISTANT TRAINING PROGRAM: IMPLEMENTATION IN TWO SETTINGS

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"Most of us describe ourselves as teachers of economics, but place all
the emphasis on 'economics' and have none left for 'teachers.' 1 This com-
ment was made in a report by the Oxford Conference of Teachers of Economics
in 1924 but could just as easily have been made in 1977.

Recently, economic educators have been exploring methods to improve
economics courses, particularly introductory courses. Much of the emphasis
has been on changing course content or the effectiveness of alternative teach-
ing tools such as computer-assisted instruction, personalized systems of in-
struction (PSI), and student-tutors. While all of these are commendable re-
search efforts, they still ignore the basic resource in college-level instruc-
tion—the teacher.

A few studies of attempts to improve teaching skills of college economics
teachers have been reported recently. 2 These studies involve training sessions
for graduate teaching assistants (TAs). The purposes of this paper are to
describe how a training program for TAs was implemented at two different
institutions and to identify issues to be considered when implementing a TA
training program. This paper does not include empirical evidence concerning
the effectiveness of the program as a means for improving teaching skills.
Instead the goal here is to provide a practical guide for a department which is
considering a training program.

The guide will consist of three parts, a description of the program as im-
plemented in each setting, an identification of the issues to be decided when
planning a program, and comments concerning the desirability of the two
approaches.

The first of these TA training programs was established at the University
of Illinois, Urbana, in the Fall semester of 1975. The program included six two-hour seminars, each on a different topic related to teaching. The seminars met during the semester while TAs also taught their own classes and took graduate courses. TAs from several departments met in one group. Topics for the seminars were: preparing instructional objectives and lesson planning, planning exams and writing effective exam questions, teacher-centered teaching methods, learner-centered teaching methods, preparation and use of instructional media, and self-evaluation methods for teaching improvement.

In addition to seminar instruction all TAs were videotaped while teaching their own classes. Following taping each TA met with a teacher supervisor to view and discuss the tape.

The same basic program was implemented at Lehigh University in Fall 1976. In this case, however, the seminars met before the semester began during the week immediately preceding the beginning of classes. Each department's TAs met as a group, separate from the TAs of other departments. Content for the seminars was selected from the list of topics previously described. A faculty member from each participating department selected content to be included in the seminars for his teaching assistants. In some cases a faculty member from a participating department met with TAs to discuss content for the courses they would be teaching. Most TAs were videotaped and some had a teacher-supervisor observe their teaching.

Based on a comparison of these two approaches we can identify a series of decisions that must be made as a training program is planned and implemented. Who will run the program? When will it meet? What will be taught? What incentives will be used to secure TA participation? Further analysis of
the two programs provides some suggestions.

A story told at a conference on geography education demonstrates a key planning consideration. One Sunday during his sermon a minister announced that the organist, who for many years had been a mainstay of the congregation, would be retiring shortly. The minister made a plea for a volunteer to replace the much admired organist. At first no one responded. After further pleas from the minister, a man at the back of the church confidently raised his hand and agreed to begin the following Sunday. At the beginning of the next Sunday’s service the man sat down at the organ and began to touch the keys. The most awful and discordant sounds came out. The new organist stopped, frowned, and then began again. The second time the sound once again was unfamiliar and less than melodic. Sensing a problem the minister approached the organist and asked, "What is the problem? I thought you could play the organ?" The man replied, "I can't understand this. I've been attending this church and listening to and watching the former organist for twenty years. I certainly thought I would have been able to play the organ after all that experience."

Although both the Illinois and Lehigh programs are taught by a specialist in the teaching and supervision of teachers, this is not necessarily typical of TA training programs. Frequently TA training programs are the result of interest within a department on the part of a single faculty member. That individual may or may not be trained and/or skilled in teaching. Just as colleges and universities do not require training in teaching of applicants for faculty positions, departments frequently do not require training in teaching or even demonstrated skill in teaching as a prerequisite for training others to teach.
We assume that because faculty members have observed teaching during 20 years as students or because they have "pounded on the keys" without lessons for five or ten years that they can teach others to pound keys and produce acceptable if not beautiful music. Simply because I have functioned within the economic system for 29 years does not qualify me to teach even a principles course in economics let alone an advanced course in econometrics.

If the TA training program is to be successful, the person who will conduct the sessions must be carefully chosen. One approach would be to choose a department member who is a good teacher and who has training in teaching. Such a faculty member may not exist in some departments. Or, if that person exists he or she may not have any interest in working on teaching improvement. A combination of these factors led to the approach used at Illinois and Lehigh.

Each institution employs a specialist in teaching and supervision. Both specialists have Ph.Ds in that area, at least four years internship experience in supervising teachers, demonstrated interest and ability in college teaching, and several years experience teaching at other than the college level. These positions are funded by a university-wide source and are not currently tenurable. Several departments could combine their resources and hire such a person at a relatively low cost to each department. The University of Illinois employs such a person full-time while Lehigh funds only a part-time position. Almost any size institution can take advantage of the current over-supply of well-qualified teaching specialists and hire someone for even a nontenured part-time position. A caution to be followed, however, is that just as one would not by desire hire an urban and regional economics
specialist to fill a position in mathematical economics, one cannot hire just any education Ph.D. and expect to get an expert in teaching and supervision. A first concern, then, should be to determine whether a truly qualified and interested person is a member of the department or whether the department should combine with others and hire a person to work with TAs.

After deciding who will run the TA program, some organizational details need to be settled. First, will the seminars be held before the semester begins, during the semester, or some combination of both? All three approaches have been tried in these programs and each has its advantages.

By meeting with TAs before the semester begins, one might help to alleviate some initial concerns of new TAs. It is also possible that the TA seminar leader may give TAs information which will help them to avoid establishing undesirable habits. TAs can begin the semester with some knowledge of the teaching-learning process. This is the plan used at Lehigh. Departmental representatives selected the pre-semester meetings because they felt that TAs could not devote sufficient attention to training during the semester.

At Illinois the initial seminars met during the semester while the TAs taught their classes. The advantage of this plan is that TAs are encountering the teaching problems in their classes and the content of the seminars seems more immediately relevant to their needs. This plan also provides a regularly scheduled group meeting at which TAs can seek assistance regarding specific problems which occur during the semester. Participating departments at Illinois preferred this approach since they did not feel they could require TAs to begin training before their contracts began.

After the first two semesters of training at Illinois a third approach was
developed. On an open-ended seminar evaluation question, "What suggestion for improvements do you have?" 17 out of 45 TAs suggested that at least a few seminar sessions should be held before classes begin but that the sessions primarily should be held during the semester. This combination of sessions has been used for the past year and seems to combine the desirable features of the other two approaches.

Another issue to consider is what will be taught during the seminar sessions. An associated problem is whether TAs from several departments will meet as a group or whether each department will have a separate series of seminars. At Illinois the seminar director planned the entire program. The director selected topics for the seminars by reviewing other TA training programs and educational research literature to determine what aspects of teaching were most often mentioned as basic teaching skills. The director of the program at Illinois defined the purpose of the seminars as improvement of basic teaching skills even if the skills would not be used in the TA's present teaching assignment. For example, some TAs were not responsible for preparing any quiz or exam questions but all TAs participated in that seminar. The assumption was that at some time TAs would have a teaching assignment which would include testing and that repeated training for specific course responsibilities was an inefficient way to organize the seminars. The director of the Illinois seminar program assumed all TAs to be content experts at least in the undergraduate courses they were teaching. The seminar director examined textbooks, read syllabi, and talked to faculty members in order to formulate accurate examples in each subject area. For example, she had a file of questions that might be asked in economics, geography, mathematics
and chemistry classes. No faculty members participated in the seminar planning although a few observed some seminars. Because the seminars were not content-specific, TAs from all participating departments met in a single group.

The Lehigh seminars were handled in a very different manner. Some department chairmen could not be convinced that certain basic teaching skills are merely applied to different content. Other department chairmen did not feel their TAs were experts on even basic content and preferred to devote some time to that during the seminars. Therefore, each department chairman had the authority to select the topics he preferred for his TAs. All but one department chairman wanted his TAs to meet only with TAs from his own department. Therefore, all TA groups met by department. In three departments faculty members worked extensively with TAs during the week preceding classes. These faculty members taught portions of the undergraduate course to the TAs on a demonstration basis. In two other departments faculty members met with TAs and discussed aspects of course organization. In one department no faculty member met with the TAs.

The seminar director worked with TA groups from one to twenty hours depending upon the topics selected by the department chairmen. Six different groups met during the same week, each group containing from five to eight TAs.

Again in response to an open-ended question, about one-third of the TAs participating in the Lehigh seminars suggested that TAs from different departments should meet together. Economics TAs thought they could benefit from discussions with math TAs as did chemistry and physics TAs. All TAs wanted
to interact with English composition TAs. Two faculty members from different departments suggested that the topics could be taught to mixed groups of TAs.

In departments where chairmen selected a very narrow topic, and therefore limited participation by the seminar director, one of two situations occurred. In one department the seminar director conducted a second series of training seminars prior to the start of the second semester for TAs who had been given a new teaching assignment which required more independent teaching. Thus, TAs were trained twice in the same year because the first approach was too limited. In two other departments the chairmen requested further seminars from the director.

The result of the Lehigh experience is that for next year departments are being encouraged to invite their TAs to a single seminar series which the seminar director will organize and conduct. Departments will plan their own separate content-emphasis sessions.

Once seminar sessions are planned and organized a department must reach a decision regarding incentives to encourage TA participation. Several incentives have been tried. Some TAs receive stipends for their participation. These stipends range from $50 to $100. Other TAs receive graduate credit in a special issues or independent study course. Still other TAs are required to participate as a condition for further employment by the department. In one seminar series at Illinois all three types of incentives were used by various departments. Even when TAs compared incentives, those who were required to attend as a condition for employment did not express any resentment. TAs in all three groups had about the same number of absences (only four instances of absences out of forty-five TAs attending six group sessions and two
individual conferences). At Lehigh, all TAs received a cash stipend of $100. No TA absences occurred during the pre-school training seminars or later conferences. The most appropriate incentive for a given department will depend upon many factors such as the number of graduate students available to fill needed teaching positions, financial resources of the department, and degree of departmental commitment to training.

Finally, some estimate of cost can be given for each of these programs. The Illinois program costs approximately $11,000 in salary for a director, $500 for materials, and incentive expenses; the incentive expenses are assumed by the department. The Lehigh program costs approximately the same for salary and expenses but costs an additional $6,000 for the $100 stipends for 60 TAs. The Illinois program services about 40 TAs per semester, 80 per year, while the Lehigh program services about 60 TAs per year.

Several general conclusions concerning the two approaches can be made. First, neither approach described made use of department faculty members as primary directors for the seminars. Most departments did not have faculty members who were both interested and trained in teaching. Also, departments saw the benefit of partially supporting a staff salary since departments using their own faculty members as seminar leaders usually provided those people with one-third released time which was more costly than partially funding the teaching specialist. TAs and faculty members also saw benefits in having someone from outside the department available to help TAs with problems.

Second, participants seem to desire opportunities to interact with TAs from a variety of departments. If the seminars are not subject matter specific they can include TAs from several disciplines. This also allows efficient use of
the seminar director's time by increasing the seminar size to 15 or 20 TAs per group.

Third, a TA usually does not have a single teaching assignment for her entire career as a teaching assistant. Departments which choose to use training seminars as preparation for teaching a specific course should at least be aware that additional training for changing course responsibilities may be necessary.

In short, a department or college planning a TA training program first must assess its resources. Given certain resources a department must decide whether to use a faculty member or teaching specialist as seminar director. Next, departments must decide when seminars will be offered and how they will be organized. Based on the intended audience and the skills of the seminar director, someone must decide what aspects of teaching will be included in the seminars. Finally, departments must decide what, if any, incentives will provide to encourage TA participation.

When deciding whether to implement a program a department should consider the cost of not developing TA training. In a period when colleges and universities are being challenged to document the effectiveness of their undergraduate programs, TA training demonstrates a commitment to fostering teaching. Further research will probably continue to support TA training as a means for improving instruction.

A final consideration is the marketability of graduate students upon completion of their degree. More and more institutions are requiring some evidence of teaching competence. A TA training program benefits graduate students that it provides prospective employers with some tangible evidence of eff
to develop teaching skills. While the establishment of a teaching assistant training program may require an investment of time and financial resources, the returns to the department and graduate students seem to make such an investment advisable.
Footnotes
