Although graduate faculties have favored research ability rather than teaching skills in doctoral candidates (even though 85 percent of those with doctorates teach in college and never publish), there have been encouraging signs of change. Agencies which have contributed to research are donating now for improvement in graduate teaching programs. Previous trends in teacher assistantship programs, which have lacked status as well as supervised teaching experience, are being partially countervailed by the appointment of experienced teaching assistants to supervise beginners and by teaching assistant unions formed to secure better working conditions and appointment procedures. Alternatives to assistantship programs have included, in addition to practicums and internships, a program awarding a Candidate for Philosophy Certificate and another awarding a Master of Philosophy degree, both for completion of all doctorate requirements except the dissertation: and a sixth-year program which awards a specialist degree and which could fulfill the special needs of junior college instructors. Academic departments, with financial assistance solicited by the university or college, should assume major responsibility for preparing college teachers. (LP)
THE PREPARATION OF COLLEGE
AND UNIVERSITY TEACHERS

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In democratic societies it is a generally accepted aphorism that the quality of life enjoyed is a reflection of the quality of the educational enterprise the society promotes and supports. This is predicated on a corollary principle: the quality of the educational enterprise is a reflection of the investment society is willing to make to prepare those who will bear responsibility for the cultivation and transmission of the knowledge and values the society possesses.

Since the cultivation and transmission of knowledge is a primary responsibility of the academic profession, it follows that the quality of education and of life is largely determined, in any given society, by that society's response to the question: How well are your teachers prepared for teaching? This is not merely to ask: How well have your teachers achieved mastery of the knowledge in their teaching field, and how free are they to teach that knowledge to others, but, how well have they been prepared in the art and skills of teaching it? If we direct this last question to the preparation of college teachers in the United States, we receive some disquieting responses.

An assessment of the state of the education profession with respect to the preparation of college and university teachers involves a review of the graduate institution—and to some extent an appraisal of its support. In accepting responsibility as the teacher of teachers, graduate institutions assume accountability for the most sensitive aspects of the whole educational effort. Success or failure at this level has repercussions and social
consequences that are both manifest and latent for every other level and for almost every educational variable. As teachers of teachers graduate institutions are in a pivotal position to influence the totality of life enjoyed by—or denied to—individuals and society in general. Their role in the preparation of college and university teachers is particularly crucial in the current period of soaring student enrollments and compelling social issues.

Over the past two decades higher education as a topic of general interest has moved from the back pages of the newspaper and the spot announcements which the mass media are required to make in the interest of public service, into the daily newspaper headlines, the feature pages of magazines and journals, and into prime time on radio and television. The growing interest in higher education as a universal right, coupled with the size and character of the population which currently seeks that right, has generated demands for changes in education which have definite overtones with respect to the future character of higher education and for the types of faculty orientations they will need.

In some cases the nature and magnitude of the demands would require replacement of the traditional evolutionary process of planning by revolutionary approaches that threaten to uproot suppositions and attitudes that are deeply planted. In other cases the demands are predicated on what are, as yet, indeterminate goals; hence, planning, at best, must be tentative. In either case institutions of higher education are rapidly learning—sometimes the hard way—that educational theories that were appropriate during more normal periods of transition have little relevance in this age of rapid technological development and social change. They have also begun to realize that they cannot produce action-oriented ideas for change without in some
way being involved in their implementation or implicated in their consequences.

Students and other critics are more and more prone to raise important moral questions regarding the character and ultimate use of the knowledge discovered by scholars and disseminated by their academies. At times these individuals appear to be more concerned about preserving the university's integrity than are its professors. In particular they express impatience with the lag between theory and practice—especially when that practice involves the resolution of a pressing human problem. For this reason, they regard the socialization of scholars along basic versus applied lines as sheer academic pretentiousness. If colleges and universities accede to the pressure to step-up their service function and to modify their relationship with the larger society, important changes will be required in the preparation and orientation of their faculties.

The Dilemma in Doctoral Education

Those who planned doctoral programs are faced with the dilemma whether to educate scholar-teachers, teacher-scholars or both. Usually they start with the basic question: Is any distinction necessary or desirable at this level?

After many years of apparent inertia graduate schools have begun to reevaluate their approach to the process of developing the future scholar. Student unrest provided the imperatives for this reexamination and, in many cases, the Ford Foundation provided the impetus by promising support for those institutions which proposed imaginative plans for upgrading their graduate programs.

Because the voice of the student is now so audible in the land—and around the world—planning committees take pains to listen to their views.
In a study of graduate education that is currently being supported by the U.S. Office of Education, the chairman of the Economics department in a top ranked institution observed that their students are no longer content to spend their lives learning how some grand economic theory was developed. They want to know how well that theory stands up as a possible solution to the problems of the poor. In this sense the university's age-old claim that it is concerned for the rights and welfare of man is being assailed on the right by those who would interpret this as an intellectual concern, and on the left by those who view it as a responsibility for direct social or political involvement. These issues have direct impact on the kind of training the future college teacher will receive or will need.

The Organization of Knowledge as a Function of the Doctoral Student's Socialization.

Little in the education of most college and university teachers has prepared them for an interdisciplinary (or a social action) role. Instead, their intense identification with their own discipline renders most scholars uncomfortable and inept outside of its protective confines. If his preoccupation with a special area of interest did not exist before the scholar's formal admission into the academy, everything inside it, from its idioms to its ideologies, constrains him to acquire it.

The departmentalization of knowledge, and the internal hierarchical system of the university which is based on rank, degrees and awards, are important determinants of the style of life into which the Ph.D. candidate--as a future college or university teacher--is shaped. Because departments generally enjoy wide autonomy in setting up and regulating their academic requirements, they are not only strong administrative units but important
social units as well. With only minor exceptions, interdisciplinary or interdepartmental interaction has been rarely encouraged on the university campus even between those units whose lineage can be traced to a common source.

For the most part each graduate department becomes a separate enclave which exercises an effort toward keeping its members "academically pure." Under this rubric many departments not only discourage their own students from taking work "outside" but also bar "outsiders" (non-majors) from their courses lest they "weaken the level of the discussion or upset the standards." Implicitly or explicitly the student soon learns that interest in an outside field may jeopardize his standing as a serious scholar in his own field. By reducing the orbit of the student's academic contacts, the department restricts his models to the immediate faculty and socializes him to its norms and values.

As the purveyor of fellowships, assistantships, research funds and other awards, the department evokes the deep loyalty of its students and heightens its charismatic role. Later in his career the professional association replaces the department. It displays its particular charisma by making him visible among his colleagues. In the meantime, his interest in outside affairs, in teaching and in students, must be set aside or given less of his time, energy, and attention.

The literature on this aspect of graduate education is replete with criticism. Much of it strikes at the imbalance in the Ph.D. program in terms of research versus teaching. The rationale for the research emphasis has its antecedents in the fact that universities believe they have a primary (and in many cases a unique) function to educate and train for research. The argument against the heavy emphasis on research is that 85 per cent of those who
receive the Ph.D. teach in colleges but never publish. A possible explanation lies in the data which show that: (1) 90 per cent of the Ph.D.'s who enter the academic profession each year receive their degrees in fifty institutions, (2) the reward system in these institutions is based essentially on "measurable criteria", i.e., research, and (3) professors who received their recognition under this system of awards are inclined to rationalize the importance of projecting themselves as research rather than as teaching models. Thus, as they bend their efforts toward preparing their graduates for the prerequisites of the system, they tend to socialize them into the life-style of the researcher to whom teaching is often viewed as a distracting intrusion.

Almost everyone has a bad conscience about the injustices in the academic reward system and its effect on teaching, but until some way is found to recognize effective teaching the hortatory injunctions will do little toward changing the balance between preparation for teaching and preparation for research. Nor will formal programs of teacher preparation be in any great demand. Most students are no less sensitive to the reward system than are professors. Few are inclined to elect a program of study which might jeopardize their mobility up the academic ladder or lessen their attractiveness in the academic marketplace. Thus present practice is perpetuated.

Preparation for Research versus Preparation for Teaching

It has been frequently observed that the American college teacher is the only high-level professional person who enters his career with no practice and with no experience in using the tools of his profession. Graduate faculties, who are responsible for planning the educational programs of the future college teacher, are generally disposed to hold the position that an intelligent, liberally educated individual who has achieved mastery in a
subject matter field is thereby qualified to teach it. More recently there has been a noticeable increase in the number who are willing to concede that some teaching experience under the supervision of a master teacher has merit, but a majority still reject the idea that any formal study of the art and skills of teaching, or the nature of the learning process, adds substance to practice. According to the American Council on Education report, *Assessment of Quality in Graduate Education* (1), members of the graduate faculty see an almost perfect correlation between teaching effectiveness and eminence in one's field. The emphasis from the point of view of the graduate faculty is on content, not teaching style.

These beliefs are not based on any rational analysis of the complexity of the teaching process, the subtleties of the learning process, or the difficulty of teaching under the stressful conditions in higher education today. They assume, in effect, that teachers qua teachers are born, not made. Many reason syllogistically: "I had no formal training; I am a successful college teacher; therefore, my students can become successful college teachers without training." This is the simplistic philosophy on which many face the question of education for teaching. If they espouse any method, it is that of the apprentice observing his mentor—usually doing research.

In actuality, graduate students rarely have an opportunity to observe the faculty in a teaching role because in almost any given department members of the graduate faculty spend less than six hours a week in a formal class. In some institutions there is simply no option offered to observe a variety of teaching styles and methods. At the graduate level everything is geared to research, which relies heavily on the seminar approach. At Columbia University, for example, a specific ranking system splits off the teaching undergraduate faculty from the research faculty. Thus isolated from teaching
models, the bright ambience is research and the evocative pull for the student is in that direction. The cumulative effect of this is that teaching becomes increasingly trivialized at the graduate level. As diffusers or popularizers of knowledge produced by the scholar, the teacher rarely achieves parity with him. Graduate students taught in this environment become fragmented men who go out and teach the only way they know how—for technical competence.

If they accept a position in a liberal arts college, they do so as specialists. Thus, the strength of the liberal arts college as an institution which "teaches man to live well among the turbulence that surrounds him" is eroded and the institution is transformed into a pale shadow of the graduate school. Their hostility against including formal courses on teaching as an aspect of the Ph.D. program would be justified if graduate advisors would acknowledge the specificity of the degree as preparation for research publication and would, therefore, selectively admit only those who manifest an interest in this career. The fact that it admits and trains for research publication 85 per cent or more who never publish points to the need for a critical examination of possible alternative programs or for different streams for those whose careers require skills in interpreting, synthesizing and transmitting research, but not for doing and/or publishing it. For many students a critical point arrives in the doctoral program when they come face to face with the dissertation requirement. For some it lacks appeal as an intellectual experience. Others are dismayed at the inordinate amount of time required to center on a topic, get it approved by a committee and, once launched on the research, battle ambivalence at every turn. The process takes on a moral dimension for some for whom the experience has little relevancy except fulfilling a degree requirement.
The high transfer rate among first-year doctoral students is sometimes attributed to their disenchantment with the research emphasis in the doctoral program. Students who are not decisive about their area of interest are sometimes tagged as "drifters" or not very serious scholars who will eventually drop out. Some do. Others collect credits and high grade-point averages but make no progress toward a degree because their collection lacks an integrated focus on a major area. In some cases the student himself fails to hone toward a goal. In others he is inadequately advised, and in still others the graduate system fails to accommodate him and other individuals whose interests change or span several areas.

In some cases a student who expresses a negative interest in research in favor of an interest in teaching finds it difficult to find a sponsor who is sympathetic to his goal. Graduates in these two categories often "drift" into teaching as opposed to being drawn into it. A large number remain indefinitely in the graduate program, treading water as far as their Ph.D. candidacy is concerned.

Historically, every generation of students has been hungry for good teachers, but the current generation has been the first in this country to mount an organized attack on what they charge has been the Establishment's lack of concern for the poor quality of college instruction. In an attempt to initiate reforms, the National Student Association and the Students for a Democratic Society have designed and disseminated blueprints for helping students gain power on committees charged with the appointment and promotion of faculty personnel and on curriculum planning bodies. They have also promoted student evaluations of teachers and, in some cases, have set up counter institutions which presumably differ from the traditional academic institutions in content and instructional method. The effect of this collective thrust by
students has generated some reforms in some existing programs, and encouraged a few innovative experiments but evaluations of these have yet to be reported.

As graduate enrollments increase and as the character of the student body changes (to include, for example, new minority subcultures and large numbers of returning veterans of the Viet Nam conflict), criticism of college and university teaching will almost inevitably increase and become more strident. It seems imperative now not merely to upgrade the preparation of college teachers but to fit that preparation to the new social demands. It also seems imperative that graduate schools recruit more students who have a primary interest in teaching as a career.

Unfortunately, there appears to be considerable loss of interest in college teaching during graduate school. The following comment of a current student is typical:

I came to graduate school wanting to be a liberal arts teacher. I now also want to do research. I consider this a moral decline on my part but I have learned that research is where the money, the prestige and the mobility are. (1)

This decline of interest in teaching may be measured partly by the figures which show that while 85 per cent of those who enter graduate school say that they look forward to a college teaching career, about 48 per cent of those who finish actually take an academic appointment (2). The probability is high that unless and until the "second-class citizen" status is removed from teachers, the "flight from teaching" will continue and there will be little improvement in the emphasis placed on preparation for the teaching function. However, there are some encouraging signs that important influences are at work to promote change.

The generous grants recently provided by the Ford Foundation to support graduate programs, the teaching fellowships provided by the Danforth Foundation,
and the provisions for college teaching improvement in the National Defense Education and Higher Education acts are providing some of the ferment required to raise the status of the teacher to a level that will hopefully be on a par with the well-defined image of the researcher. A ray of hope lies in the fact that agencies which previously gave generously to promote the university's research function are now turning their attention to the need for assisting it in its teaching function.

**The Teaching Assistantship as Preparation for College Teaching**

A review of the available reports on the preparation of college and university teachers yields some evidence of recent gains in the number of institutions which purport to provide education and/or experience for this career (3). A comprehensive survey taken in 1967 reported that approximately 450 graduate institutions listed courses or programs of instruction designed to assist beginners in the art and skills of college teaching. Since then several other institutions have added formal training in this area.

Approximately 80 per cent of the 450 programs are directed toward students who are working for the Doctor of Philosophy, the degree normally required for those who seek regular appointments on a college or university faculty. Among the remainder are approximately 30 institutions which offer the Master of Arts or Master of Philosophy degree and/or specialist degrees that have been specifically designed to prepare junior college and undergraduate college teachers.

About half of the institutions which claim that they give their Ph.D. candidates preparation for college teaching publish no reports on how this experience is implemented. Among reports that are available on the remainder, there is little solid evidence that the high rhetoric used to describe the
program is matched by viable educational experiences that are carefully designed to develop individuals in the art and skills of instruction.

The activity which most commonly serves as the core of the teaching experience for the graduate student is the teaching assistantship. The Michigan Center for Research on Learning and Teaching reports that 75 per cent of the 450 institutions whose programs it reviewed indicated that the teaching assistantship was their primary tool for preparing future college teachers.

Ninety-five per cent of these institutions describe the assistantship as an opportunity for teaching under supervision and guidance. However, various other studies (3), (4), (5), (6), report that less than half of those who held this appointment in the reporting institutions received adequate, systematic or continuous guidance from a senior member of the faculty. A sad commentary on the static nature of their programs may be found in the data which show that in half of the fifty institutions which produce 90 per cent of the Ph.D.'s each year, the program for teaching assistants had remained substantially unchanged during the past decade or more. This means that while spiraling increases have occurred in college enrollments to accentuate the problems of guiding and training assistants, and unprecedented developments in teaching and learning technology have begun to change the character of teacher preparation, nearly half of our major Ph.D.-producing institutions made no methodological changes to meet the new demands. The deep well of discontent with the character of undergraduate teaching today may have its source in these data.

Currently about 75 percent of the programs designed to prepare graduates for college teaching are administered through a single department. Only a few are interdisciplinary. Although courses in higher education and in
college teaching are currently available in ninety-five institutions, most students seem to be tightly locked into programs confined to their own discipline. Except for students majoring in Education, few Ph.D. programs recommend (and fewer require) courses in such areas as the psychology of teaching, the social psychology of institutions of higher education, or seminars in which the moral and ethical issues in teaching are examined. In a few cases student-initiated courses along these lines have been approved. The fact that 26 per cent of the teaching assistants now studying in ten of our best graduate schools report that they would welcome more emphasis on teaching methods may be viewed as a sign of an increased interest in teaching—or of a void in their present training.

Teaching assistants are typically the raw recruits, or first-year students in the graduate program. With the exception of students in the humanities, who usually hold the teaching assistantship for three years, the average length of time spent in training is from one to one and one-half years. A large number forsake the teaching assistantship in their second or third year to seek the more highly respected and coveted appointment as a research assistant.

The duties and responsibilities of teaching assistants vary widely among graduate institutions and among departments within the same institution. They may range in character and level from routine nonacademic details to full responsibility for teaching a regular course. The physics department in one of our large major universities gives each of its teaching assistants a description of the office they assume as an assistant. In it they are advised that they have a three-part responsibility: 1) To facilitate in every possible way the intellectual development of the individual students in their section, s) to ascertain and carry out the aims of the professor in the development
of the plan of the course, and 3) to further their own training and development as a physicist and teacher (7).

Most universities have carefully defined their criteria for the selection and appointment of teaching assistants. Unfortunately, in their press to find enough persons to staff their undergraduate classes, they must often wink at their specifications. The best graduates are awarded the research assistantship. Teaching assistantships carry little prestige so the university must often offer it to those left over.

On the positive side, a study of quality in graduate education, which is currently under way at the Center for Research and Development in Higher Education at Berkeley, provides data on more than 2,000 teaching assistants who report considerable satisfaction with the assistantship experience. In reviewing these data it must be acknowledged that most of the respondents are pursuing their programs in ten top-ranked universities and that most of them enjoy the security afforded by a four- or five-year grant from the Ford Foundation. In each of these cases their institution, too, had recently received a grant for purposes of strengthening its graduate program. Included in the institutional subventions were funds with which to secure staff for the supervision of teaching and research assistants.

Approximately 75 per cent of the respondents in this study reported that the teaching assistantship had increased their interest in teaching, and an equal number said that the experience had improved their instructional skills. In spite of the fact that 81 per cent reported good relationships with their supervisors, only 59 per cent felt that they had been given enough guidance. Seven percent felt that they had been over-supervised.

Special training features of the assistantships in the top ten institutions included orientation meetings ranging from two or three hours to two
weeks, regularly scheduled or informally scheduled meetings between the teaching assistant and his supervisor, pre-service training, special seminars for trainees, and evaluation of the training program by the trainee.

A third of the respondents who held teaching assistantships described the experience as very helpful, another 25 per cent found it moderately helpful, and 8 per cent described it as rarely helpful. The fact that 32 percent said that they had no basis for judging the experience is disconcerting because among this group were many who said that they were assigned routine non-teaching tasks. Others who had been assigned teaching duties had received no supervision or evaluative feedback from their faculty supervisors. Still others implied that an appointment to the teaching assistantship satisfied a means not an end. In some cases, the respondent was merely fulfilling a department requirement in his program. In others, a personal need was fulfilled—usually financial.

The programs that were rated most satisfying were those which provide experiences that are graduated in responsibility. Doctoral students were most critical of those in which a "sink or swim" philosophy prevails, and of those in which the teaching assistant has little control over the instructional approach. (4)

The problem of preparing teaching assistants for college teaching is currently being approached from different directions at Washington University and at the University of California at Berkeley. In the history department at Washington a very well-organized experiment is under way to train teacher-scholars, whereas at Berkeley the emphasis is reversed to prepare the scholar-teacher. Washington teaching assistants are assigned to teach the survey courses in history. This requires the novices to acquire a broad background in their field. Their doctoral examinations are based on what they teach
as opposed to what they do in their research. At Berkeley teaching assistants in history teach sections that are defined as "satellite seminars." For these, the teaching assistant, under the supervision of a senior faculty member, defines a set of problems and selects a set of topics which his students will pursue and for which he will be the central resource person. The topics chosen spring from the life problems of the students, not the professors. Because the problems which the students propose are carried into history and subjected to intellectual analysis and the methods of scholarly inquiry, new light is cast on the thought of the past. The planners of the California experiment believe that the teaching of the beginner is "where the action is, and where the graduate student is as a scholar, /hence/ the gap between ancient canon and modern inquiry is truly closed." (8) At Washington the emphasis is on teaching for breadth. At California the emphasis is on depth and methodology.

A new development among departments which appoint large numbers of teaching assistants is the practice of placing experienced teaching assistants in a supervisory or training capacity for beginning assistants. On the grounds that they are regularly available and have recent knowledge of the problems and needs of a teaching assistant, the senior teaching assistant is thought to be in a good position and well-qualified to serve in the role of mentor to the neophytes. In addition, he sometimes serves as an administrative assistant to the faculty member who coordinates the logistics of the teaching assistant's program. In this role the graduate assistant relieves the faculty of the day-to-day details involved in orientation and guidance.

This practice has great promise as a teacher education plan if the master or senior teaching assistants are carefully selected for their interest in teaching and if the institution fulfills its part of the contract by viewing the assistants as teachers-in-practice rather than as employees temporarily
filling an institutional vacancy.

Research on the teaching assistantship points definitely to its potential as a method for providing supervised experience to beginners. Unfortunately, it also documents the fact that in too many cases it is a potential that is poorly used and largely untapped.

The Unionization of Teaching Assistants

An assessment of the preparation of future college teachers would be incomplete without a consideration of the fact that students today make a sharp distinction between dedication to a career and commitment to a career. This is reflected not only in their expressed attitudes about their role as teachers, but concretely in the figures which show that they are beginning to unionize for bargaining purposes.

About 6 percent of the 2,040 respondents who are currently teaching assistants in the ten institutions now being researched by the Berkeley Center, are members of a union. Another 45 percent said that they would join such a union if a local were available. Only 12 percent said that they opposed teachers' unions on principle.

While 40 percent of the respondents view their unions primarily as a medium through which to negotiate for better salaries, approximately the same number would use the union to secure improved working conditions, standardized work loads, limitations on the size of the lab or discussion sections assigned to assistants, or improvements in appointment procedures. Thirteen percent believe that unionization is a means through which undergraduate programs eventually can be strengthened.

Implicit in these and other data on today's students, is the fact that "dedication" to teaching as an ideal is being replaced by the conviction that teaching involves a secular not a sacred trust. In this sense it involves
commitment not sacrifice. If unionization of teaching assistants becomes a trend, it will probably have far-reaching influence on the attitudes of future teachers toward service. Also affected will be the institutions' relative autonomy in their use of students as a solution to their problem of staffing undergraduate classes.

The American Federation of Teachers claims authorship of the educational revolution. By enlisting future generations of college teachers into its membership it insists that it will hasten the day when training programs will be regularized. Some universities are attempting to find alternates to this external press by designing internships which bring the student more intimately into the collegial partnership. A primary aim in these moves is to improve the status of the prospective teacher and to reduce the distance he feels between where he is and where he wants to be. Many authorities believe that one of the first steps in this direction must be to increase the stipend paid to teaching assistants and to involve them more directly in those decisions which affect their progress in the educational world.

Professional associations appear to have neglected this important group of potential members. By failing to do more for those preparing for membership, some organizations have defaulted on their claim that they promote professional interests of individuals and the society. In general, these organizations expend their resources so liberally in polishing the scholar-researcher image of their members that they have little residual with which to illuminate their role as teachers. While many professional associations concern themselves with what the university does to prepare mathematicians, chemists, sociologists, etc., few have addressed themselves to the fact that the majority will be mathematicians, sociologists, etc., in a college or university--institutions which are designed not only to promote knowledge in the various disciplines
but also to promote cultural renovations based on new insights. Students seem to be more aware of the pluralistic role of the college teacher than are the professional associations. Universities might provide an important service by offering a well-planned colloquy on the issues involved in professionalization, institutional philosophy and purpose, and the relevance of the university's effort to respond to what goes on outside its immediate sphere of operation. The dialogue on these issues, which currently takes place largely in the mass media, should be informed by dialogue on the campus.

The Internship or Practicum for College Teachers

That there is a growing concern among college and university presidents for faculty who know how to teach is documented in Berelson's data which showed that over 600 college presidents and academic deans rated "knowledge of how to teach" one of the primary competencies they looked for in seeking staff. Additional support for this interest was found in the fact that approximately 35 percent of the current Ph.D. programs now require some teaching experience. Although most of the experience is now obtained through teaching assistantships, a few institutions organize the experience more formally as an internship or practicum. In this case, the training is related to the student's on-campus learning and is arranged sequentially so as to provide variable and graded activities and responsibilities. In some cases, the student takes his internship on his own campus, and in others the experience is gained in another institution with which the university has arranged his teaching schedule.

Fundamental to the practicum or internship is the assumption that teaching implies a certain behavior and, as behavior, one's teaching style can be subject to analysis, change and improvement. A second important
assumption is that teaching is an extremely complex kind of behavior involving the full range of thought, communication and physical action.

To this end, the practicum is arranged so as to provide opportunities for the neophyte to observe and analyze a variety of models whose styles and coping mechanisms are appropriate for college teaching. In addition, it attempts to provide him opportunities to analyze and evaluate under realistic experimental conditions his own approach to teaching, his students' approach to learning, and the strategy and techniques for organizing the materials and preconditions for teaching. Usually the practicum includes courses on teaching methodology, psychology, and "clinical" conferences with a supervisor.

The Doctorate in College Teaching

As the need for more college teachers grows, and the criticism of undergraduate teaching becomes more vitriolic, the question, "Is there a need for a new doctoral degree for college teachers?" becomes more pervasive. The issue has been debated frequently and heatedly.

In a study currently underway at the Center for Research and Development in Higher Education at Berkeley there is evidence of growing faculty support in some fields for a special degree for those who plan careers in college teaching. Of the 1600 respondents representing twelve academic fields and ten of the best graduate institutions in the United States, 35 percent favored the introduction of a teaching degree in their field. Another 20 percent were not certain of the need and 44 percent opposed such a degree outright. Those who favored the degree agreed that it should be offered by the substantive department rather than by the School of Education and that it should be designed for synthesizers and disseminators of research rather than for researchers per se.
These data indicate new thinking on the part of graduate faculties and may portend future changes in doctoral preparation. A number of institutions are studying the feasibility of such a degree but so far none have been formally announced. The University of Illinois and a few other institutions have recommended the institution of doctorates in English, chemistry and clinical psychology, but as of this writing approval is still pending.

The faculty at the University of California approved, in principle, a Candidate in Philosophy degree but rejected the recommendation for a Doctor of Arts degree which the Committee on Education proposed as a viable program for those who preferred non-research careers. The Candidate in Philosophy degree has not yet been implemented. To date, the proposal for a special degree for college teachers has been met with studied indifference on the part of most of the graduate faculty because they perceive such a degree as a dilution or a diminution of rigorous scholarship and productive of second-class scholars. Almost universally, holders of the Ph.D. correlate a degree that is different "in kind" with a degree inferior "in quality". If a program to prepare college teaching is ever to emerge as a viable and respected degree, it must have strong and aggressive administrative leadership, effective representative support from the teaching faculty, and a political place and power within the university structure.

Many graduate deans agree that if none are willing to speak for teaching, or if those who speak are defeated by the wall of silence which confronts them, patchwork efforts at reform will continue to be applied in place of new and different doctoral programs that might be designed to educate integrated teachers, not just specialized scholars.

Arrowsmith suggests that if universities won't take the initiative to offer such a program "colleges should go into business on their own". (9)
He and others propose that a nucleus of top quality liberal arts colleges might offer programs designed to produce teachers who can compete with the research scholar in excellence.

In their recent book, The Academic Revolution, Jencks and Reisman argue against the need for a special degree for college teaching but offer compelling arguments for an effective clinical training program for preparing undergraduate teachers. Yale now offers this option. Other experiences might include a residency internship after the Ph.D. similar to the internship of the medical school student. This would be the pedagogic counterpart of the postdoctoral experience which many scientists enjoy. The Danforth Foundation’s teaching internships, the N.D.E.A. fellowships and the internships offered to teaching fellows at Monteith College indicate movement in this direction. However, graduate school deans believe that real progress can come only when a viable program has deep institutional commitment from universities like Harvard, Yale, California or Illinois, and when colleges like Reed, Swarthmore, Williams or Claremont agree to provide experimental internship programs. Success depends upon a coordinated, cooperative effort between those institutions that develop and those that utilize college teaching talents.

A countervailing trend is seen in the educational programs of the scientist, which is gradually being extended to include a postdoctoral experience, and that of the humanist and social scientist, which is being reduced in some institutions to include only one (or no) foreign language requirement. These changes lead some authorities to suggest that the distance between the researcher and the teacher may become further lengthened and attenuated. If it grows, the character of the preparation may be more highly differentiated than it currently is among the disciplines. This has prompted the suggestion that the Ph.D. program should be altered to prepare the
graduate for teaching in an undergraduate college--or up to the Master's level--while a postdoctoral degree or its equivalent becomes the research degree for the university faculty.

The Candidate for Philosophy

In spite of the fact that the doctoral degree is upheld as prerequisite for a college or university appointment, approximately 75 percent of those who enter higher education faculties each year, and 49 percent of all experienced college and university faculties, do not hold the Ph.D. Although many of the new teachers are in the process of getting this degree, either in the institution which gave them their teaching appointment or elsewhere, an appreciable number may be described as Ph.D. dropouts or as A.B.D.'s--individuals who have completed all requirements in the doctoral program but the dissertation.

It is a practical impossibility to obtain accurate figures on the number of persons who are in the A.B.D. category. In terms of Ph.D. production statistics, they are often seen as "wastage", but the fact of the matter is, many A.B.D.'s contribute substantially to undergraduate teaching in all types of higher education institutions. Logan Wilson of the American Council on Education contends that the real wastage occurs among graduate students whose interest in teaching is violated in order to suit the requirements of the system. He describes these as the men and women who want to teach but who are pushed or bent into the Procrustean bed of the researcher. There is ample evidence in the data on the Ph.D.'s subsequent output to show that many are overprepared for research, or prepared for a career they never pursue.

Efforts have been launched by the dean of the graduate school at Michigan, and by others, to erase the A.B.D. stigma by awarding a Candidate
in Philosophy Certificate to those who complete all the requirements for the Ph.D. except the research dissertation. The certificate is given automatically to all who successfully reach this stage. It certifies that the recipient has completed a rigorous academic program in good standing and is eligible to continue for the Ph.D. if he so chooses. Over one thousand certificates have been awarded at Michigan since this innovation was started three years ago. Reports from over one hundred institutions that employ the recipients of this certificate have all been positive with respect to their teaching competencies.

The Master of Philosophy Degree

Under the dean of the graduate school, Yale University has recently introduced the Master of Philosophy, a new degree designed for those who plan careers in college teaching. Unlike the Master of Arts in Teaching, which is a professional degree usually offered in Schools of Education, the M. Phil. is an academic degree centered in the student's subject matter department and supervised by its staff. And, unlike the traditional M.A. which is sometimes given as a consolation prize to those whom the department wants to eliminate from the Ph.D. program, the M. Phil. is an open-ended endorsement of the fact that the recipient is qualified to continue for the doctorate if he elects to do so.

The degree is given automatically after the student passes all the requirements and examinations in the doctoral program. If he decides to interrupt his program at this stage, a teaching appointment at a liberal arts college is arranged for him by the university. This is planned as an internship during which the student receives the help of a master teacher who is assigned to assist him. During this period he receives compensation commensurate with an instructor's rank. At the end of a one- or two-year teaching
experience he may decide (1) to go on teaching with only the M. Phil., (2) to return to Yale to complete his dissertation for the Ph.D., or (3) that he does not wish to remain in teaching.

If the M. Phil. recipient decides to return to Yale for the advanced degree, he is guaranteed readmission and he will receive a stipend for a period of fifteen months.

Yale views this degree as a contribution to small colleges which ordinarily do not get graduates of top universities. The colleges that enter into the internship plan have the advantage of securing bright young undergraduate instructors for a year or two whom they can sometimes retain on a permanent basis.

Yale also believes that the internship provides a salutary interlude in the strenuous graduate program because it comes at a time when there is often a need for a change in the tempo of the mature student's activities.

The Specialist Degree

The Specialist degree (certificate or diploma) is a recent innovation in higher education and is usually awarded in a special teaching field or major. It is a sixth-year program and represents an intermediate degree between the Master's and Doctor's. Advocates of this new program view it as a response to the need for 200,000 junior and undergraduate college teachers who will be required during the next ten years. It represents an attempt to fulfill the needs of those who will occupy positions requiring a higher level of knowledge and competency than the M.A. provides, but whose professional responsibilities do not require the rigorous original research training provided in the Ph.D. program.

Experience in the Specialist program is functionally organized around
the candidate's teaching speciality and professional objectives. He generally receives preparation in such areas as the psychology of learning, tests and measurements, and in the application of teaching tools or the new teaching technology.

These programs gain their basic strength from the practicum or internship in teaching which some offer. However, in a report prepared for the Committee on Intermediate Degrees and the Graduate Studies Committee of the American Association of State Colleges and Universities (10) only ten of the 92 institutions in the study said that they required this experience. Sixty others offered it as an option.

The Specialist degree plan is described as weakest when it is primarily designed to prepare students for state certification requirements. In these cases it usually adds up to a collection of discrete courses with no coherent integrative plan for preparing or improving the candidate's readiness for the teaching role and no experience in that role.

Directors of Specialist degree programs tend to agree that the relatively small increase in the number of sixth-year programs over the past ten years is attributable to the fact that the degree lacks status and does not reward the recipient financially. Thirty-five of the institutions in the AASCU study reported that a large number of those who are admitted for specialist degree eventually transfer into the doctoral program. While this is generally construed as a loss to the Specialist Program, it cannot be counted as a loss to the college teaching profession.

Some educational planners suggest that the Specialist degree could be developed to provide a more appropriate preparation for junior college instructors than does the current doctorate in education or the Ph.D. in an academic field. The fact that most junior colleges (and some four-year state colleges),
1) have an open-door policy on student admissions, and 2) do not require their faculties to do research, lends credence to the argument that the Ph.D. degree is not functional as preparation for this important segment of college teachers. According to a recent report from the Association of Junior Colleges, adequate preparation for junior college teaching includes "...depth in one or more substantive fields, professional preparation carefully related to the nature of the junior college, and to the characteristics of its students and an internship or other supervised junior college teaching." ( ) In addition, a basic knowledge of the objectives of junior colleges is thought to make the teacher more receptive to, and less frustrated with, the open-door policy. If he realizes that his responsibility is to students rather than to his subject, he will not be unduly concerned about "covering" the course work. This is almost the reverse of the orientation offered in most Ph.D. programs.

Corollary to the need for a distinctive training program for preparing junior college teachers is the need for some in-service training. Because so few who move into junior college appointments have an orientation to the nature of the junior college instruction, this background should be available for all who need it. Only 20 percent of those who enter junior college teaching each year have had previous experience at the college level. One third enter with high school teaching experience. Some of these are prone to use methods acquired at this level. One third come directly out of a master's program with little or no previous experience. Some of the latter overreach their students. A small number enter from business or other related areas. It is implicit in these data that several forms of carefully planned in-service orientation could be helpful.
Some Basic Problems and Considerations

A very compelling issue in the preparation of college and university teachers—and one which involves both their self-perception and their socialization into the life of the academic person—is the failure of the graduate school to give status to teaching or to teach for teaching. The probability is that so long as research remains at the apex of the reward system, and the research scholar is ensconced alone on the scholarly pedestal, the prospective academic man will aspire to climb aboard his pedestal via the research route. Not until the teacher-scholar gains status commensurate to that of the research-scholar will preparation for teaching and preparation for research receive equal emphasis in the Ph.D. programs of the major universities. This is a fact of academic life as it is lived today.

For the moment at least, some hope lies in the fact that as a result of the concerted attacks on the quality of college teaching, a few institutions are now seriously concerned about the problem and are attempting to find some means to alleviate it. In some cases this is done by requiring all Ph.D. students to have some supervised teaching experience. Considering the fact that 50 percent of all Ph.D.'s do not go into academic positions this is probably unrealistic. A better idea might be to make the experience available to those who plan to take faculty positions in higher education and excuse all others.

In view of the current student disenchantment with college teaching, faculty members and administrators of graduate departments are reexamining their role as teacher of teachers. Many believe that in view of the need for a constant reexamination and renewal of the quality of life that a democratic society supports, the preparation of college teachers can no longer be left to chance. A comprehensive study of the needs in this area should be undertaken.
In particular, college teaching as a career must be shielded from the "second class citizen" label which characterize other professional degree recipients.

In the interim and to this end, there is an immediate need for: 1) a strengthening of the program for the education of teaching assistants, 2) an expansion in the opportunities for teaching internships in undergraduate institutions, and 3) a restoration of teaching as an important function in the role of the research-scholar as well as that of the teacher-scholar.

**Recommendations**

1. Any plan for reform in the preparation of college teachers must resist the temptation to transfer the responsibility to "teach for teaching" over to the school of education. While most students would undoubtedly profit by some study in the psychology of learning, the sociology of educational institutions, test and measurements, or a seminar on the problems in college teaching, in order to avoid overprofessionalization the student's academic department should assume major responsibility for providing the environment and experiences in which the principles of teaching are applied directly to his field.

2. As openly and vigorously as they seek support for their research activities, institutions which profess to prepare students for academic careers should seek support for teaching. This involves the enlistment of influential and respected persons on the campus whose interest in and support for a teaching program will give it status and attract others who can contribute positively to it. It also involves enough financial subvention to allow the institution to staff the program with those who have the competency and time to devote to the development of imaginative, flexible model programs of teacher training.
3. Informed by the need for approximately 200,000 new undergraduate teachers in the next five years and by the pressures for reform in their basic preparation, academic planners should give serious consideration to the development of a new degree for college teaching.

4. In some institutions the lack of adequate support for the teaching function—especially at the undergraduate level where large enrollments are common—has caused some departments to violate the institution's integrity. By claiming to provide programs for prospective college teachers when, in reality, they provide limited, on-the-job experiences that are often unspecified, unsupervised and unevaluated in terms of their impact on the educational goals of the prospective teacher or the undergraduate, these institutions open a Pandora's box which releases problems that are cumulative in their effects.

Colleges and universities that are too hard-pressed in terms of their staff shortages and financial limitations to hire adequate numbers of experienced teachers should make a frank admission that the graduate assistant serves an important institutional need. In return for his services they should offer the graduate a well-planned, supervised orientation to college teaching. Such a program should give the novice enough instruction and guidance to enable him to plan and conduct an undergraduate class in the area of his subject matter competence. Both the instruction and practice should apply to real, rather than to contrived, teaching problems and situations. The total program should be evolutionary in nature. That is to say, it should provide sequentially for the student's developmental needs and include in it provisions for a systematic, continuous self-evaluation.

5. If the department is large, it should probably designate one of its faculty members to organize a system for the selection, assignment and
supervision of teaching assistants. This person might establish a pool of individuals from which to choose needed assistants. He might also interview each applicant in order to evaluate his interest in teaching and his general reaction to working with undergraduate students. Only those who express an interest in teaching should be appointed to a teaching assistantship.

The teaching assistant should be advised at the time of his selection that his continuance is contingent upon satisfactory performance. Some universities provide a handbook describing the functions and duties of a teaching assistant. Topics in it are fully discussed at a series of orientation meetings for new assistants. Irrespective of its type, any program for the preparation of college teachers requires a thoughtfully planned and carefully coordinated program and strong administrative leadership. It cannot be left to those who are already heavily burdened with teaching responsibilities nor to those whose primary interest and competency is in research.

In order to smooth the entrance of the neophyte into the academic life and to initiate him into his professional status, it has been suggested that each department should foster a climate of professional respect for its teaching assistants. This would include such amenities as: 1) adequate physical facilities for both their teaching duties and their own studies, 2) a careful review of the work assigned to them so as to assure its appropriateness and to avoid assigning duties that are too heavy or too menial, and 3) establishment of student-faculty discussions on standards, workable ways of handling students' requests and other matters of professional concern.

6. As an alternative to the teaching assistantship—or an option to it—an internship in college teaching has proven to be particularly useful. If this experience is carefully coordinated with his academic program, the internship might have more value for both parties if it is secured in an
undergraduate college off-campus.

The increased accessibility of junior colleges suggests that these institutions could provide a broader base for practice teaching than does the university setting. Possibly graduate experience could alternate between both. The wide diversity in their student populations and in their organization would give the beginning teacher greater opportunities to respond to the full range of student needs and differences. It seems important to emphasize here that the intern's responses require critical comment or supervision if they are to be developmental for him. Lacking this, he may only be reinforcing poor teaching practice.

A current practice which has met with success and shows promise is the television taping of several class presentations by each beginning intern. The tapes can then be analyzed in conferences between the novice and his faculty mentor in terms of strong or poor teaching situations, the teacher's response to each situation, and any number of other variables which the tapes provide for discussion. Although this is an expensive operation in the initial outlay of equipment, its long-range gains should offset the expenditure. The potential gains in teaching competency obviously cannot be estimated in dollars and cents outlay.

7. On the basis of their survey, researchers at the Michigan Center suggest than an optimal model of teacher preparation should start out with considerable structure and direction and proceed in three functional stages. In stage one, the student would familiarize himself with the content, methodology and structure of the course he will teach, obtain practice in the preparation of resource materials, construct and score examinations and observe the teaching style of one or two experienced professors. Under supervision,
the assistant or intern might prepare and present three or four class sessions that are videotaped as presented so that in a subsequent conference with his faculty supervisor, he might analyze his own style as it influences the dynamics in his classroom.

In stage two, the assistant would be given a general outline of a course he will teach to a class of his own. He would be held responsible for planning the sessions, selecting the methods of presentation and evaluating his students. This stage would be accompanied by regular supervision and consultation and/or by a workshop focusing on test instruments, group dynamics, and the new learning and teaching technologies.

In stage three, the intern/assistant would have complete responsibility for all phases of an entire course and participate to a limited extent in departmental affairs including attendance at faculty meetings and service on faculty committees. In addition, at this stage the intern/assistant might assume a supervisory role for entering students. If he does this, his teaching load should be reduced and he should understand that the guidance aspect of this supervisory role is part of his training as a prospective college teacher.

8. Current research at the Center for Research and Development in Higher Education, Berkeley, indicates that the goals and values of today's graduate students may spark reforms away from the narrow specialization commonly found in the Ph.D. program toward an interdisciplinary convergence of interests. As a result of the upgraded teaching at undergraduate and secondary school levels, many current applicants for advanced study have acquired the analytical tools and an interest that cuts across disciplines. In the Center's study of 120 departments in ten top-ranked graduate institutions, some chairmen reported that their departmental constraints had been eased recently in response to their students' vigorous press for aggiorna-
mento—a return to relevance and to a concern for the interconnectiveness of knowledge. In this context, much as the church which claimed to have exclusive rights to the keys of the kingdom was moved by the realities of the twentieth century to open its doors to the fresh air of self-examination and subsequently to a reconsideration of the universality of religion, so, too, colleges and universities must continually ask themselves what relevant knowledge they have excluded and what opportunities for promoting communication between scholars they have inhibited by fencing themselves in with departmental walls. They must also ask themselves whether some other institution might do what they are doing better. The response to this examination could lead to new organizational relationships which might point the way to a revision of the means through which the quest for excellence in research can be accommodated to the equally important need for excellence in college and university teaching.
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