

THE NEED FOR GRADUATE STUDY AT DELAWARE*

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A Graduate School at Delaware was advocated by President Hullihen on the occasion of the celebration of the one-hundredth anniversary of the founding of Delaware College. While the problem of graduate study at the University has been discussed for a period of years, there seems to be no general agreement as to the desirability or practicability of a comprehensive program of graduate work. Under these circumstances let us hope that an agreement may be reached thru an analysis of the fundamental aim of higher education, which is the training of the individual to solve the problems arising in his chosen field of endeavor. The need for graduate study to accomplish this type of training can be established in relation to the professor, the student, and the graduate.

The American plan of a university is one that has been evolving not so much thru the passage of laws as thru a perfectly natural assemblage of ideas and functions set in motion by men in whose minds the motivating influence is research. This is true since the desire and will to know the truth is basic to its teaching. Such an institution is a community of students not just in search for knowledge which is conveniently forgotten after examination time, but seeking the vastly more important ability to solve problems for one's self in unforeseen situations. To protect the student's interests the instructor must be first a student of how to accomplish this in his field. Research is then a necessity, to be able to speak thru the medium of experience.

In its essential character this community of students consists of the instructors, graduate students, and under-

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graduate students. Eliminate any one of the three from the picture, and the others are adversely affected. The lack of graduate students is a handicap to the professor, because thru them he receives a glimpse of points of view of a new generation in a dynamic functional way not obtainable otherwise. The effects of this insight react upon the professor and return again to the student thru the medium of their association. While enriching the older men thru the eyes of youth, the younger may receive training in direction finding thru the experience of the older. Each benefits from the other in ways characteristic of the individuals concerned. Thru this close association the younger of the companions in study is prepared to stand upon the shoulders of the older in taking his place in the future.

The graduate student's effect upon the undergraduate is just as important. The two can attain an association of interests often unattainable with older men because they approach more nearly to a common point of view. For this reason there are ways in which the instructor may best affect the undergraduate thru the graduate student.

From the standpoint of teaching we may start with the fundamental axioms that if the instructor is to instruct he must first know; to know he must live; to live he must experience. The relation between the professor and the student must be a thing alive, because the giver has experienced and not merely because he has read it in a book. Textbooks are based on the researches of the past, and in many subjects are necessarily out of date by the time they reach the student. To interpret or supplement the textbook, the instructor should understand these researches. He can understand them best by doing some of his own. Personal research can not be eliminated because he thereby loses the advantage of teaching from experience. Without research or the practice of his work he is exposed to the danger of losing the ability to appreciate properly and evaluate the researches of the scholars whose researches he teaches. Research forces him to go

to the source of information contained in textbooks and predigested review-articles. He must have an interest in creating something new in his chosen field, because knowledge is a growing process. He will function less as an encyclopedia of information, but more as an instructor in methods of accomplishment. His own research effort must be properly balanced with general study of his subject. This is not a substitute for research but a necessary supplement.

The instructor must not always be a donor in the student-teacher relationship. For the best results his predominant position must be that of an acceptor. He is, let us hope, first a human being. To teach continually the same thing in much the same way year after year is but to exhaust the well at its source. If routine work is so heavy as to take the research attitude from him the teacher is definitely handicapped in the leadership of his students. While the desirable qualities of a teacher are too numerous to mention, it thus is readily seen that the practice of research and related study provides the basis for the self-improvement of the instructor and hence of his value to his classes. When a reasonable amount of a teacher's energy may be apportioned to research and related study many other things may be added, but research and related study should be first.

Under present conditions it is almost impossible and certainly unfair to require the full time teaching staff to do personal research in connection with their teaching routine. Their time is taken up with other details. When the day or the academic year is done they crave a rest from it all. That some, nevertheless, strive with indifferent success in this particular direction of self-improvement is, under the circumstances, purely a personal matter. They might with equal justification play golf, take a walk in the country, or cultivate the social graces.

Neither does the widely practiced system of Sabbatical leaves or the use of the vacation periods for research and study, adequately meet the problem of university teaching. The student is benefitted most not by

something the teacher acquires entirely apart from him and which is handed to him in the fond hope that it will be returned to the source at examination time, but by the things the student acquires in collaboration with the instructor. In other words, the practice of research must be a part of and coexistent with instruction. Incidentally, this provides the best possible way of producing good university teachers for the future.

Research for mere personal aggrandizement is not desirable in a university. Yet personalities can not be entirely removed, as the student will find when he graduates and attempts to find a place in the world for himself. It is not enough to have graduated from a course in a university. The questions of what university, who is there, and what they have done must be answered favorably.

The graduate also finds that he can not compete for the research positions in industry unless he has had research training. His chances of attaining to the preferred positions are also better if he is recommended from an institution which has a good record of accomplishment in the teaching of research. Even in competing with four-year men from research universities, our graduates are likely to find themselves at a disadvantage on account of the psychological bases of comparison between the two types of institution. Postgraduate alumni from a graduate school of our own would be of very great value to our four-year men in the industries, since, with other things equal, they would give preference to Delaware graduates and could help them steer their course.

There has been a certain amount of loose talk implying that an instructor who is working for an advanced degree or one who is doing post-doctorate work in his field of instruction must do so by neglecting his teaching duties. If the instructor can not do research in a manner to make himself more valuable to his students, then, of course, he should not undertake it. In my experience as a student and as a teacher in both a State Teacher's College and a large university, where research is fostered

and maintained as the culmination of education, I can not point to a single case where this charge of neglect can be maintained. The research professors were the best teachers. Undoubtedly there are such cases of the neglect of the student and they represent a condition as undesirable as the other extreme of doing no research at all. A blanket assumption, however, that one should not attempt research on account of his teaching is pure nonsense. It is, in fact, a part of the teaching duties of a University professor as has just been shown. Even here with our heavy load of teaching routine it is possible to make recreation of research and substitute it for other forms of recreation. It then becomes a personal voluntary matter from which the student also benefits.

The need for a well-rounded program of graduate study is, therefore, to be found in the improvement of instruction on the part of the teaching staff. Research is the living, growing principle of it. We of the teaching staff can help our university by combatting the idea of the uninformed that research is foreign to teaching. If we do not, then those whose business it is to know, and who hire our graduates, might assume that we are opposed to research as a necessary means of instruction. Under such conditions they could only be sorry for us. Let us, with all possible vigor, prevent such an assumption.

Doubtless, much of the lack of our active interest in graduate study, springs from a belief that the difficulties of establishing it can not be overcome. We must be convinced of the need as well as actively desire and promote it. Mere isolated researches accomplished by working overtime, or isolated grants from industries in the form of scholarships can not fill the need. Neither can any program of segregation of research study, having some who do the routine of teaching and others who do research, fulfill the teaching requirement. It must be operative in and thru the individual who does the routine of teaching. As a part of his routine work, the teacher should be required to spend not more than ten or twelve hours per

week in the classroom or laboratory. All the rest of his effort should be directed toward self-improvement in his subject.

At once it may be said the state will not support such a program since half of the income for our present system of operation comes from the Federal government. That is probably true at present. The other way out is thru endowment in such a manner as to assure the university an annual income double that of the present. Immediately someone says that the state will correspondingly reduce its appropriation. I have more confidence in the people of Delaware than that. It is unthinkable that the pride of possession and gratitude for service rendered should not be sufficient to cause the State of Delaware to supply at least one fourth of the annual expenses of its single institution of higher learning. Rather, I should expect a willingness to increase their support as a matter of state pride lest their contribution pale into insignificance.

To double our annual income would require an endowment of at least five million dollars. Many state universities have incomes apart from regular State and Federal appropriations. To illustrate, the University of Texas has the income from more than 30 millions as against more than 100 millions for an endowed institution such as Harvard. The University of Washington owns real estate in the center of Seattle which brings them an annual rental of about \$100,000. At the University of Wisconsin the Alumni Research Fund, derived from the gift of certain patents, has proved of inestimable value in promoting Graduate Study. Rutgers is an example of an old college which later came to function as a state university. There a campaign has been under way to secure an endowment of two millions. The manner in which the various institutions have secured these funds need not concern us so much as the fact that we would not be going contrary to established precedent in attempting to obtain such a fund for Delaware in a manner suited to our own particular situation.

This increase in income should be used for reducing

the routine teaching load and increasing the teaching load with respect to other factors; to establish and maintain a system of undergraduate scholarships, graduate scholarships and assistantships; to secure additional teaching personnel; to maintain and purchase equipment and literature; and in as many ways as possible to attract to our campus the leading young scholars in their fields of instruction.

In past years considerable has been said about the narrow provincialism of state lines. The tremendous wealth of our state is a product not alone of its 250 thousand people, but also of the 130 million of the entire country who consume the economic goods upon which this wealth is based. State lines should therefore have no voice in limiting the granting of graduate scholarships to residents of Delaware. Often it would be better if such candidates were encouraged to go elsewhere. The materialization of the proposal would place us in a strong position in that we could remove ourselves from the charity of other states and other institutions to which our graduate students now go. Whenever it should be of advantage to all concerned our own students should go elsewhere, and students from these institutions should come here. It is not a healthy condition if the give-and-take relationship of graduate study between universities is unbalanced. We must meet our obligation to bear a fair share of the burden.

I have tried to say that graduate study must be based upon the research attitude and practice. It is needed chiefly for the purpose of insuring good teaching thru the self-improvement of the teacher and the associations of three groups, the instructors, the graduate students, and the undergraduate students. It will promote a better standing of our university among the institutions of higher learning. It will attract to us better students, and they will go forth with better training.

The belief has been stated that an endowment program should be worked out for the further improvement of the University as a whole and that this improvement

can be made best by the establishment of a well diversified program of graduate study. This program should function thru an enlarged teaching staff with routine teaching loads which will permit the university to require personal research or its equivalent as well as instruction in the methods of such studies. We must be prepared to offer more money for the scholarships and assistantships than the big schools, otherwise in the beginning we will not get the best men. It has been suggested that an endowment of at least 5 million dollars is necessary. This seems a staggering sum to us, but it is not so large to those who have it, and who are accustomed to doing things in a large way. I believe such individuals would be more likely to support an adequate than an inadequate plan, for the need of which they are convinced. It should be possible also to protect their generosity by making such a fund unavailable to the University in case the State should weaken its support. Everyone is grateful to generous citizens when they give large sums for the construction of buildings. What more fitting monument could be erected to the memory of public-spirited citizens than a permanent trust to insure proper use of these buildings in the training of the young men and women who come to us in the future!