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Some Possible Ways of Improving Instruction In Our Colleges

by

Robert D. Reid

Introduction

Enlightened colleges and universities throughout the country are grappling with the problem of how best to reach young people through instructional innovations. Such agencies as The Fund for the Advancement of Education, The Association for Higher Education, and The American Association of Colleges for Teacher Education, as well as individual educators and organized college and university groups are addressing themselves to this vital matter. While no hard and fast consensus has been reached (and it would be undesirable and unfortunate if this ever happened), certain tentative conclusions have been developed in regard to possible ways and means of more effectively preparing students in a rapidly changing world.

Before we comment about some of the new techniques, theories, and technology that have caused a ferment in higher education during the past decade, it would seem well to make some observation about minimum essentials that should be found in any institution that is interested in maintaining an acceptable academic climate. Faculty members should be provided reasonable academic freedom and tenure, adequate salaries and fringe benefits, realistic teaching loads, office space in surroundings which enable them to carry out their teaching, counseling, and research duties in an effective manner, sufficient secretarial assistance, and enough equipment and supplies so that they can fulfill their responsibilities with efficiency and dispatch. They should participate fully in the planning and evaluation of instruction. Sufficient travel funds should be made available to enable them to attend some professional meetings. They should not be given excessive committee assignments. There should be a consistently followed policy in regard to leaves of absence which would make it possible for faculty members to do research or engage in further study, travel, or relaxation. New faculty members should be properly oriented. Wholesome relationships should exist among faculty members, between faculty and administrative officers, faculty and students, and administrative officers and students. The library staff should inform the faculty regularly regarding accessions and it should promote effective library use among the college family. There should be provisions for the systematic collection, organization, and dissemination of background information about students in order that faculty members may know as much as possible about their backgrounds and ability levels.

The admissions policies of the college should be so conceived as to offer the prospect that an acceptable climate for learning can be established. In this connection, T. R. McConnell has asserted: "The

character and atmosphere of the college are in large part the reflection of the quality and motivation of its students."¹ A well-conceived testing program should be in operation during the four college years for diagnostic purposes and in order that the students may be compared with those who attend their institutions. One of the major objectives of the co-curricular program should be to undergird and strengthen curricular experiences. There should be follow-up studies of graduates to discover the degree to which the college is fulfilling its mission. Curriculums should be under constant review and scrutiny in order that administrators and faculty members may be reasonably sure that their programs are providing meaningful and up-to-date experiences for the students whom they teach.

According to McGrath and Meeth, college curriculums should be so structured as to "provide both a broad base of knowledge in the major area of learning and enough specialization to accustom the student to intellectual work of a high order within a narrow branch of scholarship or to prepare him in the specialized activities of the practice of a profession."² While the establishment of curriculums in accordance with the above guidelines could not in itself result in effective and appropriate programs, at least a necessary first step would be taken.

Some machinery should be established in our colleges for continuous institutional research in order that administrators and faculty members may have sound assessments of what they are attempting to do.

Whether information about college and university operations is collected, organized, and disseminated by a specific officer of institutional research, by committees, or by designated individuals will have to be determined by each institution. It is vitally important, however, that institutional research be carried out in an organized and sustained manner in order that it will not be necessary for persons who work with students to rely on hunches or conjectures.

Persistent Problems and Suggested Solutions

While faculty members at times justly criticize chief administrative officers for being autocratic and unimaginative, in far too many instances they are unwilling to institute needed innovations in curriculums and in teaching techniques. Alvin C. Eurich bluntly stated that "a very large majority of our institutions of higher learning have no commitment to change or to improve college and university teaching."³ The Committee on Utilization of College Teaching Resources, which was sponsored by The Fund for the Advancement of Education, concluded:

¹Nicholas C. Brown, editor, *Orientation to College Learning*, American Council on Education, Washington, D. C., 1961, p. 73.

²Samuel Baskin, editor, *Higher Education: Some Newer Developments*, New York, 1965, p. 34.

³Alvin C. Eurich, "The Commitment to Experiment and Innovate in College Teaching," *The Educational Record*, Vol. 45, No. 1, p. 50.

In most colleges and universities we have acted on the assumption that there is not effective learning unless a professor offers a course "packaged" in quarter or semester units of a given number of hours per week and the student is exposed to direct instruction in the required number of hours. Content must be padded out or trimmed down to fit neatly into the credit hour unit prescribed for a course and, generally speaking, innovations which would disturb the complex scheduling of classes are discouraged.⁴

In too many instances, some faculty members insist upon teaching a maximum of twenty to twenty-five students and rely exclusively upon lecturing to their students day after day. These persons use the same stale lecture notes and examinations year after year and they expect their students periodically to regurgitate the pearls of wisdom which they believe they are expounding to a receptive audience. They have little or no conception of how learning takes place or may be facilitated, are hostile to the idea of experimenting with different teaching methods, rely exclusively upon making assignments from a basic textbook, and make few, if any, outside reading assignments. From the beginning to the end of the school term they are classroom autocrats whose impact on the lives of young people is limited if not completely nil.

Some of these persons never make available course outlines or syllabi for student use or, if they do, never bother to revise the outlines or syllabi that they developed early in their teaching careers. When hastily constructed examinations are given at irregular intervals, the examinations may never be returned to students or they may be returned long after students could derive any benefits from reexamining their handiwork. Many oppose the idea of giving students any notion of what their expectations are in terms of performance or the criteria that they use in evaluating them. Some are constant clock-watchers whose chief satisfactions come only when they receive their paychecks. For administrators to suggest that students might secure some worthwhile assistance from counselling, if only faculty members would maintain fairly regular office hours, is considered by some of these persons to be a clearcut example of administrative highhandedness and impertinence and a violation of their "rights" as members of the teaching profession.

On the other hand, highhandedness, unfairness, and downright inefficiency on the part of some college administrative officers have made it exceedingly difficult for conscientious faculty members to carry out their instructional duties in an effective manner. All of us are familiar with instances of class schedules being released too late to allow faculty members to make proper plans for their courses. We are acquainted with the needless errors that are made in some institutions in the registration of students which lead to so much chaos and confusion at the beginning of each quarter or semester. And

⁴*Better Utilization of College Teaching Resources, A Report by the Committee on Utilization of College Teaching Resources, New York, p. 12.*

finally, we have at least heard about the delays that are experienced in certain colleges and universities in receiving books, equipment, and supplies because of administrative red tape or procrastination.

Particularly since World War II, the upsurge in college enrollments, problems encountered in adequately financing higher education, Sputnik, increasing societal demands, marked changes in the science of technology, and other dramatic developments have placed greater demands on college teaching. It is more important than ever before for the college teacher to be a highly creative and resourceful director of student learning rather than a mechanical drill master or, for that matter, a brilliant lecturer.

Academic deans and department heads are frequently accused of "snoopervision" when they visit classes in order to observe instructional procedures. Particularly in regard to novice teachers, this may be a necessary responsibility which cannot be shirked completely by college administrators. Other less offensive approaches would include various forms of assistance by senior instructors to relatively inexperienced teachers and a policy of encouraging faculty members to visit the classes of their colleagues.

In addition, since it has been established that student appraisals of instruction are more reliable than some of us would like to admit, a faculty committee could prepare an appraisal form for distribution by teachers to students in their classes near the close of each quarter or semester. Students could fill out these forms and return them unsigned to their instructors who would record the responses of their charges. Since student appraisals would be examined only by the individual teacher, the possibility of administrative action if significant numbers of the evaluations are unfavorable would not exist.

Two persistent barriers which make it difficult to effect badly needed instructional improvements in many of our institutions of higher learning should be singled out. One results from the proliferation of courses and the attendant duplication and fragmentation of subject matter. The other is the constant tendency to increase the number of major fields which is all-too-often accompanied by the step-by-step elimination of a balanced program of liberal education. In many institutions which offer teacher education programs, professional education courses may be extended at the expense of a strong liberal arts core curriculum as well as sufficient supporting courses in major and minor fields. We are all familiar with the old saw about teacher education majors who know all about how to teach but who acquire very little information to teach. I am afraid that instruction in some of our teacher education courses has been so sterile that the unfortunate students often never obtained too much useful information of any kind.

Curricular imbalances frequently exist in small colleges as well as in major universities. Such imbalances can dissipate faculty energies, rob students of the opportunity to receive meaningful educational experiences and to be exposed to the broad outlines of knowledge, cause educational costs to soar, and render significant improvements in instruction an impossibility.

There should be required exposure of all students in the humanities, the behavioral and social sciences, mathematics, and the natural sciences. Comprehensive examinations should be given at the end of each academic year and there should be systematic employment of standardized tests during the four college years. Since knowledge cannot be fitted into neat little compartments, students of all ability levels can profit from interdisciplinary courses, especially during the first two years. Such courses should not be of the survey variety and they should explore in depth certain problems or issues. They should be offered by highly experienced and unquestionably competent faculty members rather than by teaching novices. While it may be necessary for these faculty members to be retooled or at least to broaden their areas of understanding, the outcomes can be most gratifying to students and instructors.

Carefully coordinated tutorial instruction should be made available to college students. The worthwhileness of employing retired and junior instructors as tutors has been demonstrated by Parsons College and a handful of other institutions. These schools have discovered that student mortality can be dramatically reduced and that classroom performances by students greatly improve when the services of faculty tutors are engaged to work with individual students or with small student groups. Institutions which cannot afford to employ full-time tutors should explore the possibility of using able upperclassmen for this purpose.

Too many of our institutions require too little of their students. Faculty members frequently assume that the students are dumb anyway and they accordingly justify their minimal efforts. Sometimes we are in for pleasant surprises as we work with these young people. We should be willing to try any method or procedure that offers even the remotest possibility of improving their lot and lifting their sights. Our institutions should have academic polices which would allow any student to achieve exemption from any course if he demonstrates that he can meet the requirements without attending class. Too many of our curriculums are filled with academic trivia which can bore even the most retarded student. We should include procedures for the acceleration and enrichment of able students through placement and comprehensive examinations and honors programs in order to avoid the unfortunate consequences of "lockstep" education. Honors programs should be initiated in the freshman year and continued throughout the college experience. We should institute or expand field projects that enmesh with or supplement instruction, exchange programs that are mutually beneficial to our students and to those who come to our campuses from other institutions, seminars and colloquia, and planned reading experiences for students and faculty members.

Since most of us would probably agree that no one really teaches another person anything, I would strongly recommend that we carefully examine the possibility of instituting more student-centered learning or independent study in all of our instruction. One of the outcomes that we should expect from four or more years of enrollment

at our institutions is that students will become sufficiently motivated to continue to learn as long as they live. Unfortunately, some administrators and faculty members seem to have the notion that somehow college curriculums should include all of the knowledge and skills that students will require for the rest of their lives.

Independent study experiences should be included in all formal and informal instruction throughout college for students of all ability levels. While ill-conceived independent student projects can be frustrating and wasteful in terms of institutional resources, and faculty and student time, careful planning can avoid such pitfalls and can lead to more gratifying college experiences. "Lockstep" education and academic spoonfeeding are avoided, and instructors can be freed from many of the humdrum routines and have more time for research and more creative work with students. Independent study can be carried on away from the college as well as on the college campus during regular terms or on an interim term basis. It can involve individual students as well as groups of students. A specified number of class meetings may not be held during which students are expected to cover a prescribed amount of work. Again, students may be assigned projects or readings outside the classroom singly or in groups which they are expected to complete. Sometimes programmed materials, audio and video tapes, films, film strips, and other materials are made available for student use during out-of-class time. A number of other approaches may be used which will cause students to depend upon their own resources in the learning process.

It has been indicated that there must be careful planning by faculty members if independent study is to be successful. Course outlines, syllabi, laboratory manuals, and other study guides must be developed in a precise and logical manner. Directions and directives for carrying out assignments must be clear and positive. Periodic accountability on the part of students must be established. If faculty assistants or student tutors are used, their roles must be carefully defined and their relationships with instructors who bear the major responsibility for conducting such programs must be well delineated.

Much research is still necessary to ascertain how best to employ independent study opportunities in various subject matter areas. There are indications that independent study is more effective in the social sciences and humanities than in mathematics and the natural sciences, although the last word has not been spoken in this regard. It is possible that below average students will benefit as much, if not more than, superior students since the independent study approach can increase mastery and confidence on the part of students. A few institutions, however, have allowed highly superior students to complete all requirements in specific courses through independent study.

It has been suggested that student-centered methods of learning "tend to produce greater gains in insight and problem-solving capacities and to promote more attitudinal changes" than conventional teaching methods. Some persons believe that students can more readily apply what they have learned to new situations, and that they

continue to display intellectual curiosity long after they have completed the requirements for an undergraduate study course. On the other hand, it is believed that instructor-centered teaching may enable students to recall more isolated facts for a period of time and "tends to produce greater gains in information and better performance on conventional tests of subject matter mastery."⁵ If these conclusions are valid, instructors will have to decide at what points student-centered and instructor-centered procedures are to be employed.

Mention should be made of the tremendous possibilities and opportunities for enrichment of instruction through the appropriate and judicious use of audio-visual aids including highly sophisticated automated instructional devices. According to C. R. Carpenter and L. P. Greenhill of Pennsylvania State University, "The problem is to select these media which, when used singly or in combination with other teaching and learning procedures, will stimulate in students the desired kinds of learning responses."⁶

Audio-visual aids have been employed by some institutions mainly because of the current teacher shortage or to effect budgetary savings. Important as these objectives may be, the chief reason for their use should be that they can offer opportunities for the enrichment of instruction which may not be afforded through continuous use of conventional teaching methods. It is likewise well to remember that the flippant or thoughtless use of any or all of these media can lead to boredom, loss of time, disappointments, and frustrations among teachers and students, as well as to needless expense.

Usually faculty members must be given some training in the use of the new teaching devices and students must be acquainted with the different study techniques and procedures that are required. Faculty seminars or institutes followed by intensive planning on divisional or departmental basis represent one approach in giving faculty members an understanding and appreciation of the new media. Demonstrations and suggested readings may usefully be employed. Hopefully, some of the resistance to change on the part of faculty members and administrators will in time be overcome.

While no significant differences in student learning have taken place when some teachers have employed audio-visual aids, the results have been different in other situations. Audio-tape recorders containing lecture tapes which have been prepared by faculty members were found to be useful in speech, literature, psychology, and other courses, in the teaching of scientific terms, and in conducting laboratory experiments. Such recorders have been synchronized with slide projectors and test-scoring machines in the teaching of biology courses. They have also been used by teachers in evaluating their own instructional efforts. Video-tape recorders and television have been used with profit in language and science instruction. Instructional films have been successfully employed in portraying the be-

⁵Higher Education: Some Newer Developments, pp. 64-65; "Better Utilization of College Teaching Resources," p. 18.

⁶Higher Education: Some Newer Developments, p. 130.

havior of peoples and the lives of outstanding personalities, in depicting and analyzing historic events, and in replacing or supplementing laboratory work in the sciences.

Programmed instructional materials have been developed for students who perform at various levels, and they enable students to have immediate knowledge of the extent to which they have mastered information. Use of linear and branching programs makes it possible to provide for students of different learning rates. Concept films and short programs are effective in teaching complex concepts. Particularly in the teaching of mathematics and statistics, programmed learning has been a valuable addition to the arsenal of teaching techniques. Even though additional research is required to determine the most beneficial formats, sequencing, and drill techniques, as well as the type of equipment that should be purchased, language laboratories can be adapted for use in other courses.

Closed and open circuit television, as well as the somewhat neglected radio, can play important roles in the learning process. Instruction via television may be too costly, however, in small—or medium-sized colleges. Telelectures, film strips, overhead projectors, transparencies, and our old standbys—the blackboard and the chart—can enliven learning and increase understanding. Practically, all of these media can be employed in providing opportunities for review and repetition on the part of students and in enabling faculty members to vary their teaching procedures. While their widespread use will occasion problems of space and scheduling and will necessitate different approaches in designing classrooms, dormitories, and libraries, these are not insurmountable obstacles. Some initial faculty opposition and student skepticism should be anticipated.

In an age which is discovering increased use of computers, colleges which can afford to do so will develop many opportunities for employing these mechanical marvels in speedily ascertaining student learning and in recording, classifying, and disseminating all kinds of useful information. The possible uses of relatively simple and complex computers in instruction and in research have not all been determined, but from what we already know about their value and merit it is apparent that they can aid us immensely in our instructional programs.

Conclusion

It is highly unlikely that instructional improvements will automatically result from the acquisition of computers, the widespread use of audio and visual aids, curriculum tinkering, or the introduction of instructional innovations. Good support must be established between the teacher and the student and the latter must be motivated to study and learn. Russell M. Cooper, Dean of the College of Arts and Sciences at the University of South Florida, was correct when he asserted that “improvement can come only as those persons immediately responsible for college teaching are moved to reassure and reorganize the quality of their effort.”⁷

⁷*Higher Education: Some Newer Developments*, p. 220.

Even though we frequently bemoan the fact that many of our students are not ready to perform acceptably in our classes—and in truth some cannot despite our best efforts—we should make certain that any failures and shortcomings on their part are not due to a lack of perseverance and imagination on our part. In our labors with our students, we should be both demanding and considerate. Somehow we must develop high but realistic standards and quality programs in all of our nation's colleges.