

## A REPORT TO THE FORD FOUNDATION

on

# THE EXPERIMENTAL PROGRAM IN TEACHER EDUCATION

## COLORADO STATE COLLEGE

by

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The Experimental Program in Teacher Education on the Colorado State College campus has completed its second year. In our original proposal to the Ford Foundation, we outlined several diversified projects we wanted to undertake; projects aimed at improving teacher education. The intent was to improve the teacher's academic program, professional education courses, and student teaching experience. The following report is a summary of these endeavors.

## RELEASED TIME FOR INSTRUCTORS

For our first year, we originally proposed to release three professors full-time each of three quarters. The released time plus travel allowances would permit them to study curriculum developments in their areas of competence. Actually, during the first year, we released twelve professors for at least a full quarter. Collectively, they studied nearly every major curriculum development in the country. This activity had the following effect:

The college established a close working relationship with such projects as Educational Services Incorporated's Social Studies Project. Our teachers are testing some of their social studies materials in our laboratory school; and Dr. Edward Kelly, Dean of the School of Education, is using such ESI materials as the "Hunting Game" in his college course on the teaching of social studies in elementary schools.

The teaching of those professors who participated has generally been affected positively, and their appreciation of the changes that are taking place has been noteworthy. For example, professor John Mickey in anthropology and professor Richard Perchlik in political

science both spent a quarter at ESI and returned enthusiastic about the ESI program in social studies. Mickey is planning to use some ESI Eskimo films in his anthropology courses and is aware of what elementary school teachers are going to need to know about anthropology to use the ESI material successfully.

The experience provided by the E.P.T.E. helped Dr. Richard Perchlik, Chairman of the Department of Political Science, to obtain an NDEA institute for high school history and social science teachers this summer. Dr. Perchlik and his colleague, Dr. Robert Rothweiler, now team teach the beginning courses in political science so each will have more time to conduct small group discussions. Professor Glen Gagon, who teaches reading, was given a quarter off to study new developments in his field. The results were an NDEA institute in reading and an experimental reading laboratory using film and tape recordings of students with various reading problems. Pre-service and in-service teachers of reading can view the films to learn the diagnosis of reading problems.

We must conclude that the E.P.T.E. has had a profound effect upon participating professors as well as their students (including experienced teachers); however, it has had a limited impact on the remainder of the faculty.

In the proposal for the first year, we said we would release at least three professors half-time each quarter to rework a course's content and method of instruction. We also proposed a Center for the Improvement of Instruction to aid these professors and others who wanted assistance for course improvement. Actually we released eleven professors for a total time equal to nine full quarters; furthermore, five other professors participated without released time. During the

second year the college itself financed released time for eight professors for half-time each quarter.

Every student on the campus has been affected by the Experimental Program in some way, because we now expose the students in at least one course to more effective use of audio-visual aids, programed instruction, team teaching, and television; in addition, several new courses have been developed. The following are some examples:

Dr. Robert Larson, associate professor of history, created "The Populist Progressive Movement," a course conducted as a research practicum in utilizing primary source materials. Dr. Larson spent a quarter in 1964 in the Library of Congress and in various libraries, museums, and archives in Colorado and Wyoming. He reviewed and described the sources of material that are available to his students, as well as to teachers and high school students in the Rocky Mountain region.

Dr. John Harrison, associate professor of English, is teaching a new course entitled "20th Century British and American Literature About Childhood and Adolescence." The course is an experiment in a topical approach to literature in which the shock of initiation is the key to the short stories, novels and poetry that the class will discuss and analyze.

Dr. David Jelden has used released time and services of the Center for the Improvement of Instruction to create a program for individual instruction in electronics, using demonstration charts, slide sets, written programs and teaching machines along with taped lectures and films. Using the available materials, each student can now learn and review on his own.

The E.P.T.E. has also had a spread effect, and professors who were initially indifferent or opposed to the innovations are now actively involved. For example:

We have worked with Dr. Arthur Reynolds, Dean of the Graduate School, in purchasing and developing transparencies for use with an overhead projector for his American history course. Only two years ago the Social Studies Division occasionally checked out an overhead from the audio-visual center. Now the Division has bought its own and has ordered another. The overhead projector is being used by at least three other historians and two geographers. Of course, we are assuming that this change results in more effective teaching and in some cases it may not; nevertheless, change has taken place at the option of competent professors. And student evaluations corroborate our perception of the courses as improved.

The E.P.T.E. has also lead to a re-evaluation of the laboratory portion of the course introducing audio-visual media. Gradually, the laboratory is becoming self-instructional so that a student can teach himself to use the audio-visual equipment. When they are ready, students demonstrate their competence. Formal class time is now used for theory more than for practice.

# CENTER FOR THE IMPROVEMENT OF INSTRUCTION

The Center for the Improvement of Instruction has played a vital role in all of the examples given here.

The Center not only worked closely with professors who received released time but was also opened to requests by other faculty members. At first, random requests from the faculty were almost overwhelming and

dealt with designing and producing transparencies and other visual aids for use in such courses as German, music and elementary education. Because of the nature of the requests, most were completed in a short time. Other more involved projects, currently being carried out, include the organization of a learning laboratory in science, programed textbooks on learning theories, and slide sets and other guides for use in teaching and disseminating library information. In the coming year we intend to undertake as a major project programing the "use of the library" by making self-instructional materials available.

In addition, the Center completed a model classroom, Kepner 214, for use for presentations to large groups. The room has a podium with an overhead projector, a tape recorder and remote controls for rearscreen projection of films, slides or videotapes. Professors have made good use of Kepner 214 and one, Dr. John Meier, has also incorporated a student response indicator that gives him individual student reaction to questions he asks.

#### CONSOLIDATION OF COURSES

In the proposal we said we would re-work and consolidate professional education courses. Here is the progress we have made:

Five introductory courses in education were combined into a course (Ed. 101) taught in large classes and utilizing new methods such as television, team teaching and audio-visual aids. Ed. 101 has been taught under this new plan for six quarters and our evaluation of the course itself rests upon reasoning, and the opinions of both professors and students. Our reasoning is straightforward:

If a competent professor is given the time to concentrate on one course and, if he is free to call upon five of his colleagues having special complementary areas of competence, he will develop a superior course, and it will be taught more effectively. The question is, "Was the price too high?" We gain time by combining several small classes into two large classes. Perhaps superior teaching in the large class may not compensate for the loss of small seminar or discussion-size classes. However, since previous courses were taught primarily as lecture/reading courses regardless of size, the possible loss is only speculative. The consensus of those professors involved is that the introduction to professional education is much better presented and organized now than prior to the change.

Our conclusions are tentative but it appears that Ed. 101 has been improved. In the judgment of the students it seems to have changed from a "mediocre" to an "above average" course on our campus. We will test this assumption this quarter by comparing students' attitudes toward Ed. 101 with their attitudes toward required courses in humanities and social science. We are still concerned about the reactions to the large classes and are planning some different approaches that will provide for more personal contact between the professor and the students.

When our attention is turned toward the effect of the reorganization of Ed. 101 on the Division of Education, the results are much clearer. The ability systematically to reduce teaching loads so that individual faculty can study and revise their classes is a direct result of released time made possible by the new Ed. 101. The released time is enabling us to study and reorganize our entire program in professional education.

The released time also enabled us to make an extensive review of previous degree programs and course offerings in the department of secondary curriculum and instruction. Robert Dunwell, associate professor of education, proposed a complete departmental revision to (1) fulfill the concept of "the role of the classroom teacher as a clinical specialist in a given subject area," and (2) to reflect "the changing nature of the development of instructional programs of instruction."

Our conclusion is that the experiment with improvement of students' professional education courses was successful. We plan to apply the basic concept of other courses in the college such as the basic course in humanities. <u>However</u>, <u>we do not think it should become a</u> <u>general pattern</u>. Students and professors need variation in the way they learn and teach. We hope this will become only an example of how reorganization can result in an effective redistribution of resources.

#### SPECIAL PROGRAMS

We have strengthened the academic training of elementary education majors and are reworking courses in educational psychology and in the philosophy of education. We have changed some of the education courses for secondary school teachers, but no fundamental change has taken place in the basic design of their professional education program.

#### Advanced Placement

We said we would break the lockstep in the education of teachers. The results have been:

We have real participants in the College Entrance Examination Board's Advanced Placement Program (it was only receiving token acceptance at the start of the project). This year we offered college

credit and advanced standing to twenty-six high school students. The highest number of credits received by any one student was 15 quarter hours of credit. This included six hours of specific course exemptions and nine quarter hours of elective credit. The least number of credits received by any one student was three quarter hours plus specific course exemptions or three elective credits with two specific course exemptions. The majority of students were awarded credit and exemption from the basic required courses, and there were some instances where the credit and exemption were awarded in the major field of study.

#### Special Program for High School Seniors

We have introduced a new program for students from small high schools near the college. The student remains in high school but, upon recommendation of the high school officials and a review of certain test results, the student can take any freshman course on our campus for college credit. This program, now in its second year, has given nine students from three different high schools the opportunity to take as many as 18 credit hours of course work in such areas as humanities, business, math and science.

#### The Instructional Improvement Program

We said we would release public school teachers in school districts near the campus half-time to return to campus for special programs designed to introduce new curriculum developments and the use of new media. This would be accomplished by selecting outstanding students who would replace the teachers half-time while continuing their education half-time in a special five-year program.

This program has been partially successful. We have obtained the cooperation of two local school districts and have offered the teachers a worthwhile program including new curriculum developments and new media closely related to their classroom teaching. However, we have not done anything for the student-interns except give them an opportunity to continue their graduate work. Our intentions were to select these students early in their college careers and offer them a different kind of professional education program. As it developed we were trying to do too many things in one undertaking; we could not select the students early enough to allow us to do more than make minor alterations in their educational programs, and we did not have the staff time available to plan a new professional education program. As a result, we have concluded that the best approach would be to continue this project as it is with the primary purpose of releasing teachers to come back for retraining. This will improve the student teaching programs of future students who will work with these teachers. To develop a new approach to professional education that is more compatible with an internship program, we would like to introduce an experimental program for liberal arts graduates. This would consist of a half-day of teaching for a year plus two continuous courses in education for that year as well as some additional academic course work. The program would lead to an M.A. but would require four quarters. The breakdown in credit would be 16 quarter hours of credit for student teaching, 18 hours of credit for courses in education and 24 credits for academic course work. The major purpose of the project would be to develop a new concept of professional education for teachers, a concept that could become a regular part of our undergraduate educational program (this program will require more

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than four years to complete, but not five full years). The two education courses we have spoken of would be a curriculum course and a methods course. The curriculum course would include such things as history of education, philosophy of education, social foundations of education, comparative education, and new curriculum developments. The philosophical and sociological aspects of the course would come in as a natural part of considering the questions of the what and how we are teaching, and why this came to be. Comparative education becomes a part of the course when we start to compare the effects of making different choices on ends and means of education (Russian-U.S.) or the historical and social impact upon education (European-U.S.). New curriculum developments are germane when the students consider what the ends and means of education ought to be.

The methods course will be closely related to the curriculum course particularly in translating the means into practice. This course would include theories of learning and communication, observation, microteaching, use of appropriate media including television, programed instruction, other audio-visual aids, and teaching techniques including problems of student control, etc. As we have discussed the course, it would be closely related to the experience the student is having as an intern. When the complete courses have been worked out, we will have defined the content, attitudes, and skills we believe a secondary school teacher should have in professional education. The program is not currently funded under our grant. To undertake it we would need released time of two professors for two years and assistantships for ten students for one year. The professors would have full time the first year to formulate and teach the two courses and develop the three-

quarter sequence. The second year they would spend their time teaching and re-working the courses based upon the first year's experience. The ten assistantships the first year would guarantee an adequate number of students for the program and encourage local school district participation. After that time the districts would pay for the assistantships and some of our undergraduates would be included.

#### Team Teaching Internship Program

In the previous section we spoke of one kind of internship referred to as The Instructional Improvement Program, where the student actually replaces the teacher in the classroom to give that teacher the time to take a special program. We have also introduced a second internship program where the student assists the regular teacher in a team teaching arrangement. The limitations of most internship programs is that they are not self-supporting. When the funds from the foundation stop, so do the programs. This program is designed to be self-supporting and does not involve foundation support. In effect, we have said to outstanding teachers that if they will agree to increase their class size by ten students, we will give them the equivalent of a full-time teaching assistant and an additional \$700 above the current salary schedule. This full-time equivalent will actually be two half-time assistants -- one in the morning and one in the afternoon. These two assistants will be seniors from the college and each one will receive student teaching credit plus \$500 (the average cost for a student for one quarter on our campus). The child-to-teacher ratio is reduced from 30-1 to 20-1, and the teacher has many new options in organizing and teaching the class. The operating cost for the school district is about the same the first year of the program with some saving each year thereafter because of

regular increments; furthermore, the program can have a profound effect upon the capital outlay costs because of greater utilization of existing space. The purpose, however, is not to save money, but to redistribute the way money is spent, improve education in the schools, and improve the student teaching experience of future teachers.

# RESPONSIVE ENVIRONMENT SCHOOL

The grant also provided the time which the director needed to open an experimental and demonstration nursery school for Spanish-surnamed children from lower-class homes. The school is really a behavioral sciences laboratory as two psychologists and two anthropologists are involved in the research. The school has completed its second year of operation and is now funded by the Office of Economic Opportunity. It has proved to be a vital research demonstration and training center for early childhood education and is visited, on the average, by 50 people weekly.

# NEW DIRECTIONS IN TEACHER EDUCATION LECTURE SERIES

Two problems we had during the first year were: (1) Reaching professors on campus who were not distinctly involved in the project; and (2) the fact that the change on campus was limited to course improvements and neglected dialogue on what the education of teachers should be. The general position the college has taken is to encourage dialogue on the topic of what constitutes good education for teacherseven to the extent of creating competing systems of teacher education on our own campus. In order to stimulate the dialogue, we invited a number of individuals to lecture and conduct seminars for our faculty.

These men were not expected to provide answers but to raise issues. We know what the people who have been involved in teacher education think, so we invited a group of individuals who have become concerned with the problem of educating teachers but who, for the most part, are not connected with higher education.

The following men appeared on campus:

Donald N. Michael - author <u>The Next Generation</u> William Odell - Professor of Education, Stanford Omar Khayyam Moore - inventor "Talking Typewriter" and developer responsive environment David Hawkins - director, Elementary Science Program of E.S.I. Martin Deutsch - director, N. Y. Institute for Developmental Studies Lloyd Homme - Head, Westinghouse Behavioral Institute James Evans - (co-founder Teaching Machines, Inc.) President EVCO, Educational Consultants

Each guest speaker presented his ideas, criticisms, and suggestions to the college community at evening lectures. The following morning each speaker participated in an informal seminar. These lectures and seminars were taped and are currently being used for reference by our students and faculty. At a later date, these tapes will be transcribed and printed in monograph form and distributed.

#### SPIN-OFFS

Throughout our report, we pointed to more obvious "spin-offs" from the E.P.T.E. such as the college's release of eight professors, Dr. Perchlik's and Dr. Gagon's grants for NDEA Summer Institutes in social studies and reading, and the experimental New Nursery School for culturally deprived Spanish-surnamed children.

Perhaps the most significant spin-off, not mentioned in the body of our report, has been the selection by the Rocky Mountain Educational Laboratory (RMEL) of a project in pre-service education based upon the

E.P.T.E. at CSC. In fact, John Meier, assistant director of E.P.T.E., will be the director of the RMEL's pre-service project.