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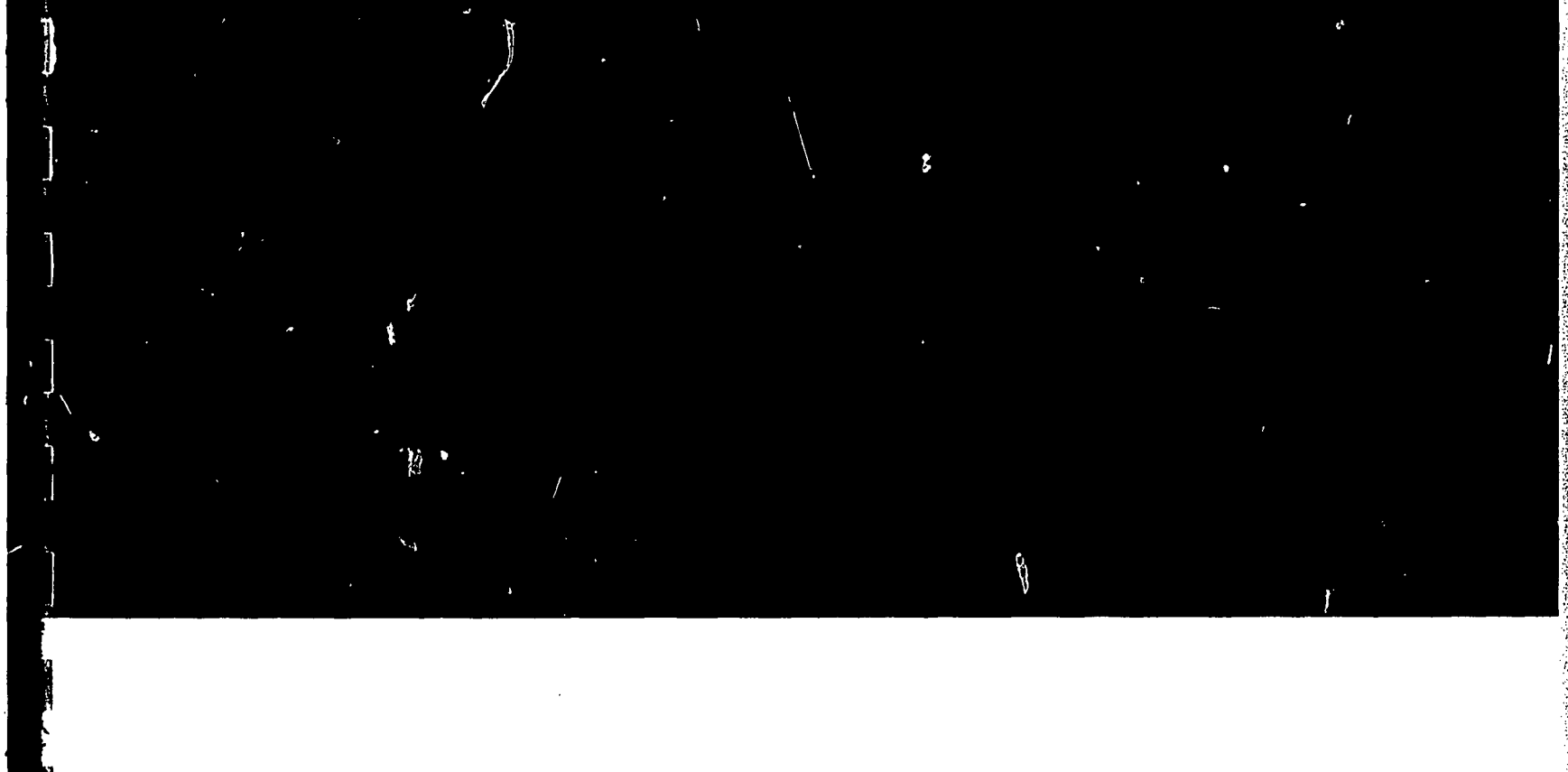
ABSTRACT

The main purposes of the College Research Development (CORD) project were to: (1) develop educational research competencies of individual faculty members at 5 institutions in the Oregon State System of Higher Education; (2) develop research support and management capabilities within these institutions; and (3) foster interinstitutional collaboration and pooling of resources. The project was conducted by and for a consortium of institutions that included Eastern Oregon College, Southern Oregon College, Oregon College of Education, Oregon Technical Institute, Portland State University, and the Teaching Research Division of the Oregon System of Higher Education. Principal activities in the first year were seminars, workshops, and demonstrations for faculty, administrators, and business officers. Subsequent activities primarily involved preparation and review of proposals, and conducting research and development projects. Projects were completed in areas of biology, poetry, economics, music, pass/fail grading, and student evaluation of instruction. Some projects not culminating in final reports had substantial accomplishments. A sizable program patterned after CORD has been established by the State. (Author/HS)



COLLEGE RESEARCH DEVELOPMENT (CORD)
PROGRAM FOR THE OREGON STATE
SYSTEM OF HIGHER EDUCATION

June 30, 1972

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Abstract

Purpose. The purpose of this project was to develop educational research competencies of individual faculty members of five institutions in the Oregon State System of Higher Education; to develop research support and management capabilities within these institutions; and to foster inter-institutional collaboration and pooling of resources.

Participants. The project was conducted by and for a consortium of institutions which included Eastern Oregon College, Southern Oregon College, Oregon College of Education, Oregon Technical Institute, Portland State University, and Teaching Research Division, Oregon State System of Higher Education. The project was administered by a Governing Committee composed of the academic deans of the respective institutions.

Methodology. Principal activities in the first year were seminars, workshops, and demonstrations for faculty, administrators, and business officers. Subsequent activities primarily involved preparation and review of proposals, and conducting research and development projects. Assistance was provided by research specialists.

Results. Projects were completed in areas of biology, poetry, economics, music, pass/fail grading, and student evaluation of instruction. A planning project resulted in a major Model Teacher Education Program project. Some projects not culminating in final reports had substantial accomplishments. A sizeable program patterned after CORD has been established by the state.

Conclusions. While several program objectives were substantially achieved, several procedural problems are discussed, and alternatives suggested.

Final Report

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Regional Research Program

Preface

The achievements of a project have a way of being associated with or attributed to the author of its final report. Let it be understood that in the present case this is particularly inappropriate. Chronicled here are the efforts and achievements of a considerable number of people highly committed to the educational process and its improvement.

Particular mention should be made of the person who drafted the initial project proposal, and who effectively administered the project for more than a year, Dr. Bert Y. Kersh, Dean of Instruction at Oregon College of Education. Also deserving of recognition are the other members of the Governing Committee, who contributed effort and wisdom far beyond reasonable expectations: Dean Esby McGill, SOC; Dean Carlos Easley, EOC; Dr. Joseph Blumel, PSU; and, Mr. James Boyle, OTI.

Much of the substance of the program was in its projects, and the achievements of the faculty directing them are a major portion of the achievements of the program. Also deserving mention are the many other faculty who in various ways participated in the program.

The writer, however, was not exactly an innocent bystander. He was involved in program affairs from the beginning and either contributed to or had major responsibility for those deficiencies of planning or operations noted in the report. And he must, of course, assume total responsibility for any deficiencies in the final report itself.

C.F.P.

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Introduction

The College Research Development (CORD) Program was initiated in Oregon during the summer of 1966, and continued under U.S.O.E. sponsorship for a period of three years. The project was a consortium effort involving five colleges of the Oregon State System of Higher Education, and the research agency of the state system. The participating institutions ranged in size from approximately 1,500 students to approximately 9,500 students. Two of the colleges, Southern Oregon College (SOC) and Eastern Oregon College (EOC) are multi-purpose institutions serving a particular region of the state. Oregon College of Education (OCE) is a liberal arts college with a college-wide orientation towards teacher education. OCE is also the host institution to the Teaching Research Division, with a professional staff of approximately 50 persons engaged full-time in educational research, development and evaluation. Oregon Technical Institute (OTI) is a technical and vocational school which was only recently authorized to expand its two-year program to offer a four-year Bachelor of Technology degree. Portland State College (PSC) has, since the inception of the project, become Portland State University (PSU). It is a rapidly growing institution in the state's most populous area. Because of its emerging status as a university, a great proportion of staff time and energy has been devoted to the development of graduate programs.

In Oregon, as in the rest of the country, the faculty of small colleges have been less than optimally involved in externally funded research activities. The primary mission of such institutions is the instruction of students, with considerably less emphasis placed on research and service than would be found at a university. Research and publication are not salient criteria for competence in the small college as they are in the university. The demand to guide and supervise the research of graduate students is almost non-existent.

If the motivations for small college faculty to become involved in research oriented activities are minimal, so are the resources. Access to academic peers working on the growing edge of knowledge is limited, especially as regards those with high level sophistication in research technique and methodology. There is also relatively less access to research hardware and library resources adequate to the need.

That small college faculty obtain relatively less than their proportionate share of external research funds should probably not be viewed as a problem. However, if small colleges can be characterized as having relatively less of a spirit of inquiry, healthy skepticism, and a feeling of tentativeness regarding their present knowledge, then there is cause for concern. While the content of undergraduate instruction places relatively little demand on experimental research, the process of undergraduate instruction remains relatively untouched by empiricism, and urgently in need of scientific examination.

Thus the efforts of the consortium have been directed at providing the motivation and resources for members of their faculties to apply

scientific methodologies to the examination and improvement of the processes central to their mission: the instruction of undergraduate students. While this effort may include experimental research in the narrow sense of explaining the relationship between experimentally manipulated variables and predicted consequences, it also includes the development of reliable instructional techniques, methodologies, and materials, and the assessment of those presently in use. Further, the consortium hoped to develop these capabilities to the extent that they would merit and receive a funding base considerably broader than the limits of this project. However, the central mission has been not so much to define projects, achieve funding, and produce final reports, new knowledge and different materials, as it has been to influence the basic posture of small college faculty regarding the instructional operations they carry out with their students.

Procedures

During the course of the three year project the objectives and procedures were modified in terms of accumulating experience. Since procedures were predefined in only the most general sense, it seems necessary and appropriate to describe the procedures actually employed in somewhat the manner of historical narrative. Thus the procedures will be described as the project evolved, charting the redefinition of objectives, approach, and strategies in terms of interim results from year to year.

Year One

The initial Program objectives were:

(1) to expose faculty and administrators of five colleges in Oregon to the skills and knowledge fundamental to producing good research and good research administration in higher education.

(2) to stimulate and support faculty within the five colleges to engage in educational research.

(3) to engage as many of the five colleges as possible in a common research development undertaking, capitalizing on strengths in personnel and facilities at each separate institution so as to produce a more productive research force than any one college could provide independently.

Overall direction in the first year and throughout the project was provided by a Governing Committee, made up of the academic deans from the participating institutions. During the first year this committee was chaired by the Vice-Chancellor for Academic Affairs, Oregon State System of Higher Education, who coordinates curricular matters in all the public colleges. The Governing Committee met monthly either physically or by telephone conference. At the beginning of the first year of the project, the Governing Committee designated a member of the Teaching Research Division staff, Dr. Bert Kersh, Associate Director of the Division, to serve as Project Coordinator. The Project Coordinator also served as administrator for the project, together with the Fiscal Officer who was the business manager of the Teaching Research Division.

The major project activities during the first year included seminars, demonstrations, and workshops. The seminars were directed at three groups, representing all institutions of the consortium. One of these groups was composed of selected faculty members from each institution. A second group was composed of institutional executives. Business officers from each institution comprised the third group. These seminars were planned and presented by staff of the Teaching Research Division.

Faculty Seminars. The Presidents of each of the participating institutions selected three faculty members to participate in the faculty

seminars. The first seminar addressed the fundamentals of planning a research project. In addition to the general discussion, each participant was exercised in stating research problems and stating objectives. Each was asked to prepare for distribution prior to the next seminar a first draft proposal to be used for critical analysis during the second seminar.

The second faculty seminar was held two months later. Some of the participants had completed and submitted a first draft proposal. Others brought them to the meeting. Teaching Research staff prepared critiques for those proposals submitted in advance, and guided group discussion of those proposals brought to the meeting. A portion of the second seminar was devoted to providing individualized attention to the problems of each participant.

The third seminar was directed at the specific techniques of proposal writing. Members of the Teaching Research staff familiar with the review procedures of funding agencies reviewed selected proposals in a simulated review panel session. The remainder of the session was spent helping each participant resolve the problems revealed to him by the simulation.

The initial intent of the seminars was to prepare the participants to return to their own campus so that they could conduct faculty workshops and transmit the knowledge and skills they had gained. In all candor, it became evident that the faculty seminars were not adequate to this purpose, and that the desired and necessary levels of commitment and competency in research were not achieved.

Executive Seminars. Participants in these meetings were the presidents and deans of administration from the respective institutions. Resource persons included Dr. Paul Messier, Director of Regional Research Programs in the U.S. Office of Education, and Dr. Lee Burchinal, Director of the Division of Research Training and Dissemination in the U.S. Office of Education. Seminars considered the possibility of developing staff competency and research through federally sponsored research institutes, the impact of research programs, and problems of enabling and motivating research. Over time it became apparent that the participants were familiar and sympathetic with the problems, but considered solutions to be either not forthcoming or not feasible.

Business Officer Seminars. Of the three types of seminars held, this series was considered to be the most successful. This was indicated both by the free exchange of ideas evident in the meetings and by the utility of information presented. Topics included allowable cost, budget preparation, grant administration, indirect cost, cost sharing, time and effort reports, proposed budget review, and vacation pay from research accounts.

Workshops and Demonstrations. The purpose of the workshops and demonstrations was to provide a repertoire of possible solutions to identified instructional problems. Some of the activities had a diffuse

motivational intent, to stimulate thinking about educational innovation generally. Some activities focused on recent innovations that had received considerable attention. Two of the workshops were of a "how-to-do-it" nature, regarding the specific techniques of instructional development.

The first conference was a two-day program on instructional simulation and laboratory instructional technique. The conference demonstrated the instructional technique called "Decision Games" which has been found to be a particularly effective means for motivating students and for teaching problem solving skills in the social sciences. Consultants at the conference were Dr. Clark Abt, President, ABT Associates, Inc., Cambridge, Massachusetts and Mr. Hall Sprague, Research Associate, Western Behavioral Sciences Institute, La Jolla, California. Both consultants have had extensive experience in the development and use of "Decision Games" and related simulation activities at all levels of instruction. Dr. Abt presented procedures by which the training games could provide unique opportunities for participants to develop skills through practice. Each of the consortium institutions sent two or three members to the conference.

The second conference was a rather rigorous and demanding institute on the systematic development of instructional programs. The content was that originally developed for the National Research Training Institute, sponsored by U.S.O.E. and presented at yearly institutes for CORD participants at a national level.

The third conference presented in some detail the uses of computer-supported game techniques and a systems analysis approach to specific areas.

Participants in the CORD Program also had the opportunity to attend a conference featuring Dr. James Finn (since deceased), University of Southern California, who gave an address on the "Future Implications of Newer Educational Media in Higher Education." Dr. George Kneller of the University of California at Los Angeles, a noted educational philosopher, gave a humanistic perspective to man-machine instructional systems. Dr. Earl Hunt, of the University of Washington, nationally recognized and known for his work with computers and the study of human cognition, presented this aspect of man-machine learning systems.

The project also sponsored a conference featuring an internationally famed artist, Mr. Emilio Vedova, who presented a demonstration entitled "New Ways of Relating the Viewer to the Image."

An examination of the projects conducted during the second and third year of the CORD Program will indicate that the projects ultimately funded were considerable influenced by the workshops and demonstrations that have been described. Another important influence was the system of auto-tutorial materials and open laboratories, in the field of botany, developed by Professor Samuel Postlwaite at Purdue University. His system

stimulated considerable interest among biology instructors, and formed a nucleus for collaborative efforts across the institutions of the consortium.

Biology Curriculum Project. As indicated in Objective 3 for the first year, it was considered desirable to involve as many institutions as possible in some common undertaking. Ideally, this would involve a content area common to at least several of the institutions, and be a "high-load" course with respect to class size and total student enrollment. These characteristics would increase the probability of synergism and economic feasibility. Because of a wide-spread and early interest in the Postlwaite approach and the fact that biology met the above desired characteristics, the Biology Curriculum Project was established as the "common undertaking." This effort involved three of the institutions, Eastern Oregon College, Southern Oregon College, and Oregon College of Education. EOC engaged in a systematic analysis of their objectives and course offerings which provided guidelines for each of the other institutions. SOC invested in prepared auto-tutorial laboratory materials and experimented with laboratory instructional procedures developed at Purdue. The biology faculty at OCE developed their own prototype instructional materials with the intention of providing students with increased opportunities for independent study in the laboratory. These activities were coordinated through joint meetings of the biology group from each campus so that elements of a common curriculum emerged.

Independent Workshops. Workshops were conducted independently by each of the institutions except Portland State College and succeeded in exposing large segments of the faculty to the CORD Program. From these workshops emerged several independent research efforts by individuals and groups. These college-based activities were supported by small appropriations of grant funds provided to each institution to supplement its existing resources.

Year Two

The objectives for the second year were:

(1) to carry the first generation of CORD-sponsored research and research-related projects to the point where they may be expected to receive independent support.

(2) to identify and sponsor a second wave of research development activities capitalizing on the faculty competencies and institutional resources developed out of the first year activities, and encouraging institutions to seek avenues of research support other than the CORD Program.

(3) to evaluate the "College Planning Exercise", a simulation technique developed during the first year of the Oregon project to initiate research and research-related projects and for asses-

sing proposed major changes in college operated projects, and for assessing proposed major changes in a college operated system.

(4) to evaluate the overall effectiveness of the CORD Program on the basis of tangible evidence of change, such as number of proposals initiated and approved, and the dollar investment in educational research facilities.

In the second year of the project the Governing Committee continued to provide overall direction to the project. The Project Coordinator, Dr. Bert Kersh, became the Dean of Faculty at Oregon College of Education, and thus replaced the previous dean on the Governing Committee. The Governing Committee was hesitant to change the leadership of the Program, and requested that Dr. Kersh continue his administrative responsibility for the project as Executive Secretary of the Governing Committee. Since Dr. Kersh was no longer on the staff at Teaching Research and the project required coordination of Division resources in support of project activities, a member of the Division staff, Mr. Casper Paulson, was appointed Research Director to work under the authority of the Governing Committee. Subsequently, because of the press of his other duties, Dr. Kersh requested that he be relieved of the duties of Executive Secretary, and this responsibility was assigned to Mr. Paulson in addition to his other duties. The role of the Executive Secretary was defined as follows:

1. Convene meetings of the Governing Board.
2. Prepare agenda for meetings.
3. Make reports to the Board.
4. Propose courses of action to the Board.
5. Execute decisions of the Board.
6. General supervision of funded project activities.
7. Coordination of consortium activities in Biology.
8. Prepare progress and final reports for approval of the Board and submission to the U.S. Office of Education.
9. Prepare proposal to the U.S. Office of Education for 1968-69 for approval of the Board and submission.

Dr. Kersh continued to serve on the Governing Committee. As a result of this change of role and the conditions that made it necessary, activities with respect to Objective 3, the "College Planning Exercise," in which Dr. Kersh had played a crucial leadership role, were severely curtailed. Virtually no program resources were used in pursuit of this objective.

Research Advisory Committee. The Program plan called for the initiation of a number of small project activities on the respective campuses of the consortium institutions. A procedure comparable to conventional funding mechanisms (though not quite so rigorous), was to be employed, involving the submission and review of proposals for projects. A Research Advisory Committee was established to develop guidelines for proposal development, technical support and consultation in the writing of proposals, and the review and appraisal of proposals submitted. The

committee was composed of three specialists from Teaching Research Division staff on recommendation of the Research Director. Membership of the committee changed from time to time with the exception that the Research Director was always on the committee. The role of the committee was as follows:

1. Evaluate research development activities:

   (a) Evaluate proposed projects:

      (1) Establish evaluative criteria
      (2) Establish proposal format
      (3) Provide the Governing Committee with recommendations regarding acceptance, modifications, or rejection of proposed projects

   (b) Monitor ongoing funded projects:

      (1) Establish evaluative criteria
      (2) Establish reporting format
      (3) Provide the Governing Committee with periodic recommendations regarding continuation or termination of funded projects

2. Support evolution of projects.

   (a) Provide constructive criticism of proposed CORD projects to initiators where appropriate and warranted.

   (b) Critique proposals growing out of CORD projects, to be submitted to outside funding agencies.

The general criteria by which proposals were to be judged were as follows:

(1) The end result must have general (not purely local) applicability.

(2) The activity must be directed toward results which may be documented or otherwise disseminated.

(3) The activity must be directed toward the solution of problems of undergraduate instruction, and employ the problem-solving techniques of empirical research.

At the beginning of the second project year, and prior to the development of explicit proposal guidelines and mechanisms for processing proposals, the academic deans at OCE, SOC, and EOC were each allotted $1,000 to foster the development of their respective efforts in biology. In addition, the dean of each of the consortium institutions was allotted $1,000 to foster other new projects at his institution, consistent with the general criteria presented above. This was simply an expedient measure

to maintain faculty interest and effort, and did not imply a continuing commitment of the Program to a project funded at the individual dean's discretion.

Members of the Governing Committee served a liaison function both in transmitting information to faculty members and in receiving and transmitting project proposals and reports. For obvious reasons, it was appropriate and desirable that this function be served by academic deans, as it was in all cases except one. At Oregon Technical Institute, the academic dean, Dr. Paul Meier, was serving his last year before retirement, and felt that this function would be better served by a young and interested faculty member, Mr. James Boyle, whom he designated to serve on the Governing Committee.

A general invitation to submit proposals was transmitted to all faculty through the academic deans of the respective institutions. Proposal format guidelines were also distributed (see Figure 1). These guidelines were developed with the intent of enabling those unfamiliar with writing proposals to nevertheless prepare a document that would permit judgments of its merit as a possible project.

The Research Director and a team of specialists from the Teaching Research Division staff made a circuit of the consortium institutions by air taxi to encourage and advise faculty in the preparation of proposals. The circuit was repeated twice later in the project year to provide further assistance in the refinement of proposals and guidance in the initiation of projects. In addition, a number of individual visits were made to particular institutions of the consortium.

A tentative November deadline was established for the first review of proposals. When completed, that review revealed that, of the proposals tentatively funded at the individual institutions and of the proposals since developed, only one met all three of the general criteria described above. This was considered to be a serious problem, since the major vehicle for achieving Program objectives for the remainder of the Program was to be the development of individual projects by faculty members. Thus the quality of the Program would be directly influenced by the quality of such projects. If the number of proposals actually submitted were severely limited, and if the quality of those proposals were mediocre or less, there would be a tendency to fund poor projects rather than none at all. Thus it seemed imperative that more attention be directed at stimulating and supporting early phases of proposal development.

In order to supplement the format guidelines and further explicate the general criteria, proposal initiators were provided with specific questions with respect to each of the criteria, which their proposal should answer either implicitly or explicitly. The questions were as follows:

Criterion I

Is the problem generally felt?

PROPOSAL FOR RESEARCH ON INSTRUCTION

This brief outline is to help the TEACHING RESEARCH DIVISION assist you in preparing a proposal for grant support. Your contribution here can be in rough form, but should include as many specifics as possible. After you have roughed out the main thoughts under each heading, personnel from the TEACHING RESEARCH DIVISION will make additional contributions in order to prepare final copy for a research proposal. (Use as many sheets as necessary to rough in your present thinking.) To save writing on your part, you may use the initial numbers given below to identify each part of this report.

(1) Project Title: (A short, descriptive statement)

(2) Submitted by: (Full name and position of the one who will direct the project. Include telephone, area code, number and extension.)

(3) Problem: (State first what you think is wrong with the present method or materials. Follow this with some strong recommendations for change. State why the recommendations will bring about change.)

(4) Review related research, cite publications:

(5) Objectives: (As a result of the use of proposed materials, or procedures, what behaviors of students or agencies will be demonstrated which were not being demonstrated before their use? These must be measurable in a testing situation.)

(6) Hypotheses to be tested (if any):

(7) Rationale: (Why should this work be carried out? What is its uniqueness or relationship to other curricula?)

(8) Procedure: (What is the first step? How will you proceed from there? What is the target population for whom the materials or methods are intended? What experimental and control groups (if any) will be used? What is the composition and numbers of subjects to be used?)

(9) Time Budget: (In chronological order, about how much time will be required for each major aspect of the project? (days, weeks, months)

(10) Personnel: (Give the name, title, and brief statement of the professional training and experience of the principal investigator(s). Give names and titles of key personnel, consultants or other individuals who have tentatively agreed to serve on the project.)

(11) Facilities: (List any special facilities that are available to help conduct the project (e.g., TV, computers, etc.)

Figure 1

How widely or urgently?

Is the proposed solution generally feasible, economically and logistically?

Is the information to be obtained generally applicable?

Criterion II

Have you indicated the nature of the final report?

Will it describe both procedures and results?

Will these be replicable and usable by others?

In the case of developmental projects, will a prototype or design specifications be available for use by others?

Criterion III

Is the activity directed at a problem in undergraduate instruction in higher education?

The Research Advisory Committee and other resource persons from Teaching Research spent considerable time consulting with individuals who had prepared no formal statement regarding their proposed project, and would invite staff members to submit for critique incomplete statements that set forth whatever the proposer had clearly in mind, for example, a general description of an innovative technique, and the objectives to which it would be addressed: On the other hand, professors were discouraged from writing proposals in such a manner that they would require skills or resources not held by the professor or directly accessible to him. Thus, for example, complex experimental designs requiring sophisticated statistical analysis were usually discouraged.

Precautions were established to assure that adequate funds were reserved for biology projects at the respective institutions, since high priority was given to maintaining this institutional collaboration. Also precautions were taken to assure that no one institution would obtain a "lion's share" of the available funds, and that faculty members from all institutions would have an opportunity to have their proposals considered. A December deadline for proposals was established. At the request of the Governing Committee the Research Advisory Committee ranked proposals in order of priority employing the criteria presented above, considering in addition the likelihood that a project would continue to develop independently of the CORD Program. In general, this meant that high priority projects would be considered most likely to receive grant support from a public or private granting agency. The Research Director supplied the Governing Committee with information and rationale supporting the rankings given. Recommendations of the Research Advisory Committee and action of the Governing Committee are recorded in Appendix B. Toward the end of the project year additional funds were allocated to certain of these

projects in view of unanticipated expense or redefined scope of work. These decisions are also documented in Appendix B.

During the first year of the project, the term "research" had been broadly defined to include curriculum or course development activities which could be tested and evaluated. The scope of appropriate activities was subsequently broadened somewhat in view of the guidelines for CORD Programs published by the U.S. Office of Education (December, 1966) which permitted inclusion of "research-related" activities as appropriate for support under the CORD Program. "Research-related activities" was broadly interpreted in the U.S.O.E. guidelines as including such activities as the development of materials and improvement of instructional practices in general and specific areas, and dissemination and implementation of the results of research.

Year Three

The objectives for the third year of the Oregon CORD Program were:

(1) to stimulate and foster the development of new projects directed at the improvement of undergraduate instruction.

(2) to facilitate the continued development of existing projects to the point where they merit and achieve external support, or are implemented in the ongoing instructional program of the institutions involved.

(3) to establish and encourage more effective communication and cooperation in the faculty of the various institutions of the consortium.

(4) to develop the capability of each individual institution to continue to foster empirical efforts to improve instruction.

(5) to evaluate the overall effectiveness of the CORD Program on the basis of tangible evidence of change, such as number of proposals initiated and approved and the dollar investment in educational research facilities.

In the proposal for the third year, the rationale for these objectives, and for the means by which they were pursued, was described as follows:

> If the sole objective of this CORD Program were to achieve a number of completed projects representing new scientific understanding or instructional innovations of immediate utility, then it would be appropriate to focus all effort on selected projects already in progress, in order to maximize the probability of their culmination in desirable outcomes. In a larger perspective, however, the objective is to provide a viable and continuing means of translating

financial support and effort into instructional improvement. Realization of this objective depends not so much upon individual project outcomes as upon the competencies of faculty for systematic inquiry, and the motivation for the systematic pursuit of instructional improvement. Since the objective is the establishment of a viable process, rather than solely the achievement of utilitarian outcomes, specific attention must be directed at fostering each stage of the process.

In the third year of the project the relationship between objectives and procedures was more direct and unambiguous than it had been in previous years. Thus to a large extent the following discussion will be organized around the specific procedures implemented in pursuit of each of the respective objectives.

Objective One. Procedures for soliciting and developing proposals were those that had evolved during the second project year. Considerable effort was directed at stimulating and conceptualizing new projects with full knowledge that many of these could not reach fruition within the project year. To do otherwise would have been to narrow rather than to broaden the impact of the Oregon CORD Program on faculty members. Air taxi circuits and visits to individual institutions were conducted as in the preceding year. As before, academic deans at the respective institutions coordinated these visits and scheduled interviews with staff. In spite of a relatively large number of contacts with staff and considerable follow-up interaction, the yield of fundable proposals was relatively low. This may have been due to the fact that it was the third project year, and faculty realized that there was little possibility of extended funding. At any rate, several proposals were submitted, and viability and interest in the program were maintained.

Objective Two. Several of the projects initiated in the second year were continued the third year. In most cases these were projects showing a relatively high degree of promise in terms of past performance, or in terms of future potential to become either operational or independently funded. In general, an attempt was made to follow a "minimax" strategy, to minimize the resources allocated to less promising activities, and to maximize the yield of the more promising projects. Members of the Research Advisory Committee and other research specialists noted that they had a strong tendency to spend in inordinate amount of time and effort trying to buttress weak projects, at the expense of stronger ones. Since this would have the ultimate effect of fostering dependence on the research agency rather than independence, this tendency was resisted, though it is difficult to say how successfully.

In a number of cases, faculty members were assisted in seeking independent grant support. In some cases, this aid was directed at meeting preconditions for proposal preparation, e.g., the identification or development of appropriate measures, pilot studies, and literature searches. In at least four cases, faculty were assisted in the actual preparation of proposals to outside agencies.

One of the biology projects had been uniquely productive in the development of audio-tutorial materials for the laboratory course. In the summer between the second and third year, and during the third year, a considerable portion of Program resources were allocated to this project. This was augmented considerably by an allocation of funds from Teaching Research. A proposal for a small grant to evaluate the effectiveness of the laboratory course was prepared. Concurrently, one of the directors of the project presented a similar proposal for his dissertation.

Objective Three. Since the principle consortium effort of the Program had been in the area of biology, considerable effort was directed at keeping each of the three institutions apprised of the activities of the others. At Eastern Oregon College the effort had been principally directed at the structure and objectives of the biology curriculum. While there was no conclusive culmination of this effort, its interim products had direct utility at that institution, and were helpful in the curriculum planning at the other institutions.

Oregon College of Education had made a general commitment to the development and utilization of individualized instructional materials, and their biology project was a unique example of the form such an approach might take: a self instructional field trip for the study of ecology. While the specific content of this project was relevant only to those who could make that particular field trip, the instructional strategy had general relevance, and received considerable interest from other intitutions.

As mentioned above, the biology project at Southern Oregon College proved to be uniquely productive, and considerable effort was directed at demonstrating and disseminating the methodologies, products, and learning effects of its development. These activities included all of the consortium and extended considerably beyond it.

In areas other than biology, and particularly in English and economics, several projects had reached a point where it would be meaningful to describe their nature and progress to faculty at other institutions. In these same areas, there appeared to be a high level of common concern and desire to exchange infomration between faculty of the respective institutions. Provision was made for interested faculty to observe developments on other campuses, and to discuss them with project directors and other interested staff.

Objective Four. Initially it had been hoped and intended that the CORD Program would ultimately lead to the establishment of a "capability of each individual institution to continue to foster curricular efforts to improve instruction," and this capability was visualized as the establishment of a defined set of roles, responsibilities, procedures, and resources autonomous to each institution. During the period of the Program however, public and higher education in this state as well as in others was undergoing a period of "belt-tightening," and there was considerable public and legislative criticism of what was perceived to

be an over-emphasis of research activities, and an under-emphasis of attention to instruction. These factors militated against the establishment of formalized institutional support of research efforts. Whether such developments would have occurred under different circumstances is an unanswerable question.

There was, however, considerable public and institutional concern for the improvement of undergraduate instruction. A program previously enacted by the legislature to grant monetary awards to professors for excellence in instruction had been unpopular with faculty, and completely rejected by some institutions. The legislature had indicated an interest in developing some alternative program directed at the improvement of instruction, and the Academic Affairs Committee of the Oregon State System of Higher Education, composed of the Vice-Chancellor for Academic Affairs and the academic deans from each of the state institutions, devoted a considerable portion of their monthly meetings during the course of the year to the development of an alternative proposal. Because of his role in the CORD Program, the writer was invited to attend these meetings. No doubt because of the experience he shared with the five deans on the committee, the alternative generated was patterned after the CORD Project.

The legislature asked the Educational Coordinating Council, an agency created by the legislature to coordinate public, private and higher education in the state, to prepare legislation regarding the improvement of instruction. In turn the Council requested this writer's assistance in drafting that legislation. The writer prepared a draft in which he attempted to incorporate the best features of the CORD Project and provide an orderly means of continuing what CORD had begun, in a manner consistent with the expressed desires of the academic deans and the State System of Higher Education. This draft was translated into legislative language and subsequently enacted. A copy of the Act is included in Appendix D. The Act appropriated $750,00, and directed the Council to:

> administer a program of grants or awards to encourage the development or implementation of alternative techniques or procedures designed to improve instructional effectiveness or efficiency in public two-year colleges and four-year institutions of higher education in Oregon.

The Act stipulated that projects were to be directed primarily to the improvement of undergraduate instruction, project objectives were to be stated clearly and amenable to objective evaluation, and project designs were to provide for evaluation in terms of learning achievements of students. The Council was directed to appoint an advisory committee. The writer was appointed and still serves on that committee. For the last two months of the third project year, and for several months immediately thereafter, the writer was very actively involved in the implementation of the new program, in establishing operating procedures, in assisting faculty in the development of proposals, in devising procedures for judging proposals, and in the preliminary screening of proposals.

It should be acknowledged that these efforts by the Research Director and the Research Advisory Committee diverted energy and attention from the monitoring and support of current CORD projects, and the orderly and timely completion of the three year program. In a larger sense, however, these activities seemed consistent with the best interests and intents of the CORD Project, and the best means for assuring the viable continuation of what the project had begun.

Objective Five. This objective concerned the overall evaluation of the Program. Because of the activities described immediately above, activities in pursuit of this objective during the project year were limited. The evidence observed is presented and discussed in the next section of this report.

Results

In a sense, the implementation of a program such as that described here, the early indications of tactical success or failure, and the adaptive coping mechanisms employed, are "results" in themselves. However, we have chosen to regard them primarily as means, and to describe them in the preceding section.

In another sense, the "results" most valued and most sought are beyond the limits of direct observation and objective assessment. The philosophies of the people concerned considerably transcend project objectives, and the time frame for their concern extends far beyond the termination of the project. Assessment of such "results" must be highly speculative.

We shall thus be concerned with "results" in a third sense, as a varied set of observable events or products, indicative of the effects of the Program. To a gardener, germination, foliage, blossoms, fruit, and sales are all "results." Each, in its order, gives some uncertain hope that the next will occur. At some points in time, all these phenomena are occurring at once.

We have chosen to differentiate the implementation or presentation of institutes, demonstrations, workshops, proposal invitations and guidelines, and the advice and support given to faculty members, from the response of faculty to these activities, and to consider only the latter as "results." Even so, the use of the term "results" raises questions of attribution. It suggests that there is a direct, complete, and causal relationship between project efforts and a class of presumed effects, such as proposals submitted, proposals funded, projects completed, and institutionalized provisions for continued effort. In some cases, it is difficult to say that rather similar effects might not have been observed even if there had been no CORD Program. In other cases, the difficulty is to say what characteristics of the Program produced the effects observed.

There are a number of indicators that give evidence of faculty response to the Program; initial inquiries and early efforts to define meaningful projects, the number of proposals submitted, the number approved for funding, the number culminating in submission of a final report, the number leading to applications for external grant support, the number accomplishing some change in the nature of instructional operation.

Of a considerably larger number of potential proposals tentatively discussed and considered, twenty-nine reached the point of being presented for critique or funding. It is difficult to supply quantitative data with respect to projects not reaching that stage. Some of these apparently never proceeded beyond casual conversation; some projects were discouraged because they lacked merit or were not appropriate for this Program; some were abandoned because of the press of other duties; in most cases there was very little tangible evidence by which to judge how far an abortive effort was carried before it was dropped.

Of the twenty-nine proposals known to have been drafted, twenty-two were submitted for funding. Sixteen of these were actually funded. Five funded projects culminated in acceptable final reports. Excerpts from these reports may be found in the appendices. Three other reports are considered preliminary or interim in nature either because the proposed activities were not yet completed or because of deficiencies in the report itself. In one developmental project, the materials are known to have been developed and used, but neither materials nor a final report were submitted to the Program. In one case, the grant was for a planning effort culminating in a major proposal which was subsequently funded. In some cases, the innovative instructional activities proposed were actually conducted, but data were either not collected or not reported. In most cases where projects did not culminate as proposed, at least part of the funds were returned to the Program or reallocated to other projects. Since these funds were not identified as unspent and available until the close of the third project year, a major portion of the Program grant for the third year was not spent. A break-down of activities by institutions appears below. This should not be seen as implying qualitative comparisons, but merely serves to structure the findings for subsequent discussion.

Portland State University. Only one proposal was submitted from this institution, for critique but not for funding. The only Program expenditures by this institution were the discretionary funds made available to the respective academic deans early in the Program. The school was involved in the early workshop, demonstration, and training sessions of the Program, and subsequently demonstrations of projects developed at other institutions were presented on the campus.

During the period of the Program, Portland State was going through a period of rapid growth, and was by far the largest institution in the consortium, with 10,000 students by the close of the Program. It was also involved in the transition from college to university status. Though it was recognized early that these factors might impair the institution's active involvement, it was hoped that some projects might be developed specifically addressed at the problem of rapid growth and transition. It could well be that faculty were hesitant to become involved in a program otherwise addressed to small colleges.

Oregon Technical Institute. Two proposals from this institution were submitted and ultimately funded, but the projects were not completed and a substantial protion of the project and discretionary funds were returned.

Like Portland State, OTI was an institution in transition. Previously a two-year technical school, they had recently been made a four-year degree granting institution. The school is located in Klamath Falls, in the extreme southern portion of the state. The academic dean, who was approaching retirement, designated a faculty member to serve on the Governing Committee. While the designee appeared to be diligent in fulfilling his responsibility, his attempts to stimulate interest in the Program might have had more effect had they carried the weight of the dean's office.

Eastern Oregon College. Six proposal drafts were submitted for critique. Of those, two were subsequently merged into one before being submitted for funding consideration, and one was addressed to an outside sponsor. Ultimately, four grant requests were submitted, and two were funded.

One of these, in the field of economics, was directed at identifying available programmed materials suitable for individual study, identifying the intended learning effects of these materials, identifying conspicuous voids where materials were not available, and producing materials to fill these voids. Some accomplishment was noted in all but the last of these objectives, but the project was not completed. Information about available materials may be obtained from Dr. John Jambura, Department of Economics, EOC.

The other funded project represented EOC's role in the biology consortium. It was intended that the funding provide interim support to an ongoing effort while external funding was sought. The project sought to improve the instruction of four related and required biology courses, by examining their respective syllabi, determining or defining appropriate behavioral objectives and enabling objectives, and developing course content appropriate to those objectives. The last interim report submitted indicated that substantial work had been done in revising three of the courses, though apparently not in the manner planned. As might be expected, considerable resistance was encountered in writing objectives, and the complexity of organizing and using them in curriculum revision was considerably greater than project personnel had anticipated. Additional information regarding this effort may be obtained from Mr. David E. Kerley, Division of Science and Mathematics, Eastern Oregon College, LaGrande, Oregon 97850.

If the two institutions discussed above represent extremes of rapid change, EOC is toward the other end of the continuum with respect to stability. It is in one sense the most remote of the institutions, situated by itself east of the Cascade Range. Whereas there were a number of contacts between EOC faculty and research advisors, most of these took place at Teaching Research in Monmouth, with the exception of scheduled visits to the EOC campus. Staff members indicated that by coming to the advisors, rather than vice versa, they would be able to obtain help from several different individuals, and to discuss their work with faculty of other institutions. While this was true, it seems in retrospect that it would have been more beneficial both for the visibility of the projects concerned and for the institution, if the advisors had traveled more to the institution. If this had been done, a broader base of interest and involvement might have been established.

Southern Oregon College. Eight proposal drafts from this institution were submitted for review, including two that had been funded from the dean's discretionary funds. Of these, six were reviewed for funding, and four were approved.

One of these was stimulated by a then current institutional concern regarding student rating of faculty performance. The project initiator

performed a thorough search of the literature in this area, and gathered a considerable amount of data in pursuit of a wide range of questions. The preliminary report submitted was not considered adequate for dissemination because some necessary information was lacking and there were some questions of interpretation. However, excerpts from this preliminary report are contained in Appendix E. Further information about this project may be obtained from Dr. Harold A. Cloer, Professor of Psychology, Southern Oregon College, Ashland, Oregon 97520.

Another project involved the development and evaluation of role playing situations in a business school marketing course. An interesting aspect of this study is the evaluation of teacher behavior as well as student response using the Flanders Interaction Analysis Technique. In addition, there is an excellent design and experimental schedule for development and implementation of role playing situations. Excerpts from the final report are included in Appendix F.

Another project in the field of economics was the development of simulated economics problems for classroom instructional use. The writer has observed the experimental application of those simulated problems developed, and was impressed with their apparent effectiveness and enthusiastic reception by students. Regrettably, neither the materials nor a final report has been submitted. Information regarding this project may be obtained from Dr. John Abernathy or Dr. Frank McGraw.

This institution's role in the biology consortium was the development of audio-tutorial materials for laboratory instruction in biology. The approach was patterned directly after Dr. Samuel Postlwaite's method of teaching botany at Purdue University. This project distinguished itself in many ways. Rigorous development procedures were employed, with considerable attention to quality control. A prodigious quantity of materials were produced, covering two terms of laboratory experience. The logistic problems of providing self-paced and self-instructional laboratory experiences to a large number of students were handled effectively. And a thorough comparative evaluation was conducted with commendable objectivity, though the product of the project may have been described somewhat too conservatively. Though this project received considerable financial and advisory support, the product was still grossly disproportionate to the means, and was largely achieved by the contributed efforts of its co-directors, Dr. Richard Welton and Dr. Donald Mitchell.

During the course of the project, a small grant proposal was prepared for submission to Region IX of the U.S. Office of Education. Although the proposal was provisionally approved, it was not possible to make the requested changes before commencing the school year. One of the co-directors used the project for his dissertation. Although an extensive final report was submitted, the dissertation abstract is perhaps the most meaningful and succinct description of the project and is included in Appendix G.

While it is apparent that this institution had an active and productive relationship with the CORD Program, it is difficult to attribute

this to any particular characteristics of the school. The academic dean would perhaps not be characterized as a crusader for instructional innovation or research, nor did he have a background of unique expertise or training in these fields. However, considerable and detailed attention was given to the administrative and supervisory affairs of the program, both in his role on the Governing Committee and within his institution. The centrality of his liaison role was maintained throughout the program. Campus visits of the Research Advisory Committee were carefully scheduled and coordinated. Project progress reports were collected and transmitted through his office. It seems quite likely that his awareness and concern for the affairs of the Program were visible to the faculty and had some influence upon them.

Oregon College of Education. Fourteen proposal drafts from the faculty at this institution were reviewed and critiqued. Of these, one was not intended to receive CORD funding, but was a combination dissertation and small grant proposal. The initator was assisted in preparing a proposal for Region IX of the U.S. Office of Education, which was subsequently approved, but ultimately not funded because of a cutback in funds available to the regional office. The dissertation has since been completed.

Ten proposals were reviewed for funding, and eight of these were approved. Three of the projects funded culminated in submission of formal reports. Excerpts from these reports may be found in the Appendices.

One of these involved a survey of pass/fail grading systems in 90 colleges and universities around the country, and an evaluation of the system employed at OCE. A report of the study was presented to the OCE Faculty Senate, and the findings were summarized in "OCE Instructional Review," published by Oregon College of Education, Monmouth, Oregon 97361. A document entitled "Student Strategies in Response to an Optional Pass/Fail Grading System," by Dr. Ajmer Singh, Associate Professor of Economics at OCE, is availabe at $1.00 per copy from Dr. David Wallace, Oregon College of Education.

A project in poetry, one of the few entries from the humanities, was based on the proposition that poetry should be a listening as well as a reading experience, that many of the nuances of structure, technique, and meaning are better revealed and better learned through hearing the poem read, provided the poem is spoken by a professional or specially trained person.

A number of taped poetry listening experiences, accompanied by written text materials which included the poems read and relevant directions, explanations, and questions, were prepared and employed with students. Excerpts from the final report of this project are contained in Appendix I. The project director also prepared a brief but impressive demonstration of "visual poetry." A copy of this presentation was sent to the U.S.O.E. project monitor, the research director of Region IX, U.S.O.E., as an example of what research and development could mean in

the humanities. Materials and results of this project were widely disseminated in the public schools and institutions of higher education in this state.

A project in music evaluated the effectiveness of an innovative approach to teaching keyboard and ear training skills, by use of twelve electronic pianos. This approach made it possible for a number of students simultaneously to receive instruction by tape and practice keyboard skills. In terms of time, this approach was considerably more efficient than the conventional teaching arrangement. Excerpts from this final report are contained in Appendix J. The investigator has also pursued a number of other innovative projects in music instruction. These were reported at the 1968 annual convention of the Department of Audio-Visual Instruction.

A fourth project was instigated by a request from the U.S. Office of Education for proposals for the planning of a Model Teacher Education Program. A number of institutions in the northwest received the RFP, and rather than responding independently, they decided to pool their efforts, with coordination supplied by the Northwest Regional Educational Laboratory. A CORD grant supported the OCE planning effort. The proposal was subsequently funded, and augmented later by a continuation grant. OCE has played a central role throughout the project. The model developed, identified as ComField, has been endorsed by the Oregon State System of Higher Education, and OCE has been identified as the lead institution in this state in developing a competency based teacher education program. Further information about this project may be obtained from Dr. Bert Y. Kersh, Dean of Instruction, Oregon College of Education.

One funded project was not implemented, and funds were not expended. Two others really represent two phases of the same effort, the planning and the evaluation of a Student Advisement Program. Project leadership changed between phases. This project utilized senior students in the academic advisement of freshmen. The project sought to enhance the quality of advisement, increase the accessibility of advisement for students, and make more effective use of faculty time. The planning phase was completed and the program implemented, but a final report of findings and conclusions was not submitted. Information regarding the OCE College Advisement Project may be obtained from Dr. Bud Garrison, Oregon College of Education.

The biology project at OCE was the development of a self-instructional field trip in ecology. While the content of this development was relevant only to those able to make that particular field trip, the method of organizing the experience so that it could be meaningful to individual students stimulated considerable interest, particularly among biology professors in the state. No final report of this project was submitted.

OCE has a considerable history of innovation. The quality and innovativeness of their teacher education program has achieved national recognition. Their present Dean of Instruction was the initiator of the

Oregon CORD project, prior to becoming Dean, and has himself achieved national recognition as an educational researcher. His selection as Dean of Instruction was both an indicator of the school's commitment in this area and a factor in subsequent developments at the school. Thus it is difficult to attribute the high level of interest and activity at OCE solely to the CORD project. To at least some extent, both the recent developments at OCE and the CORD project itself are attributable to the influence of that person, Dr. Bert Kersh.

State Sponsored Program for the Improvement of Instruction. The program enacted by the state legislature and administered by the state's Educational Coordinating Council was described briefly in the "Procedures" section. The reception of community college and higher education staff to this program was quite positive. 150 grant applications were received in the first funding period. Approximately 85% of these were from higher education. During the first biennium this program was funded at $750,000. In the next biennium it was renewed at $375,000. In view of the severe budget problems of the state, continuation of this program is a strong indication of public and legislative support, and of the adequacy of the faculty response.

Conclusions

Virtually every project involves some set of operations, conducted within some context, in pursuit of some goals. When projects are planned and proposals are written there is never complete certainty, and always the need to make assumptions, about the context, the operations, and the goals, and how they are related to each other. Assumptions are made about the characteristics of people and institutions, about the feasibility and effects of operations, and about the probability and primacy of desired outcomes.

In the process of conducting a project many of these assumptions, both formal and informal, conscious and unconscious, are tested, by design or otherwise. The testing produces new knowledge, and new uncertainty, and both are needed. Thus we shall discuss our conclusions with varying degrees of conclusiveness, and shall address them to the context and operations of the project, as well as its outcome.

Training and Resource Cadres

An early intent of the program was to train a cadre of faculty from each institution in skills related to educational research and development, to the point where they could serve as trainers and resource persons in their own institutions. Their immediate function would have been to assist other staff in the development of project proposals. This would have served the purposes of both efficiency and autonomy. It is both expensive and awkward to bring in outside consultants, and their impact is specific to their purpose for coming. If the influence on faculty is to be pervasive rather than localized these resources need to be inexpensive, readily accessible, and well articulated and integrated within the instructional program.

While the intent of the first year faculty seminars was commendable and logical, the means were far from sufficient. This may have been due to several faulty assumptions. First, the participants were considerably less familiar with educational research and proposal writing than had been anticipated. The seminars assumed the ability of participants to perform some tasks that they were not prepared to cope with. Second, the presenters seriously underestimated the extent to which proposal writing requires substantive knowledge and skills in research and planning. Thus it became clear to both staff and participants by the close of the seminars that neither a broad base of research understanding nor skill in proposal writing had been achieved. Even more serious was the possibility that, instead of developing a capability, the result had been a sense of incapability.

Third, the program staff perhaps did not fully comprehend the importance of developing autonomous institutional capability to support the development of proposals, and did not fully anticipate the program consequences of failing to achieve this capability.

Proposal Development

Early in the second year of the project, it became apparent that both the quantity and quality of proposals submitted by faculty were insufficient. A considerably larger number of proposals had been anticipated, and it was expected that some portion of these would be fundable. Since no adequate means for coping with the problem had been developed at the institutional level, considerable assistance was required from the program staff.

While the program was adapted sufficiently to meet the immediate problem of generating proposals, it is likely that once again the full import of the problem was not comprehended. Proposals, when they are prepared independently, are predicitive indicators. They reveal considerably more than a project plan. They indicate how clearly one writes, how carefully he plans, and whether he has the patience and perseverence to cope with the rigorous demands of proposal writing. Any deficiencies in the proposal are likely to be compounded in the final report. Unfortunately, when considerable stimulation and support are supplied in the proposal writing process, these deficiencies may be obscured and perpetuated.

Selective Funding

As noted in the Results section, 29 complete initial drafts were reviewed, 22 proposals were submitted for funding consideration and 16 were approved. Quite possibly, some pre-screening of proposals occurred during the developmental stages. Even so, the ratio of funded to submitted projects seems high. As indicated earlier, it had been anticipated that some quality control regarding projects could be exercised through the application of selection criteria.

While selectivity was impaired by the limited number of proposals submitted, it was also compromised in the pursuit of other program goals. In the interest of having all institutions involved, and providing for consortium activities in biology, resources were reserved for these categories.

Recommendations provided by the Research Advisory Committee were in the form of rankings, not ratings. Only in the most extreme cases did the committee specifically recommend that a project not be funded. In most but not all cases funding decisions were consistent with these rankings. In view of the limited number of submissions, the desire to achieve broad participation, and the desire to translate program resources into active projects as early as possible, it is apparent that the quality control functions of selection criteria were inoperative in some cases and only minimally operative in others.

Culmination of Projects

It was anticipated that there would be a rather large number of rather short term projects. It was hoped that many of these would,

within a period of a year, either reach culmination or independent funding. While several faculty members were assisted in the preparation of proposals to outside agencies, the transition to independent funding was in some cases slower and less successful than had been anticipated. In general, projects took longer to reach some form of culmination than was anticipated, and a number did not culminate as planned.

Project Outcomes

It is difficult to assess the total impact of individual projects, but particularly difficult for those not culminating in any tangible report or product. In the latter case, the impact is still largely within the individual professor or at least within the faculty of the school. More general impact requires some mechanism for communication, and that mechanism is usually a report or transportable product. Several projects did achieve some form of tangibility, and these have been described in the Results section, and in the Appendices.

It appears that the areas of most likely ultimate impact will be economics, biology, and teacher education. The planning effort for the Model Teacher Education Program contributed to the development of a program that is likely to have profound effects on teacher education in this state and region. Considerable interest has been generated by the materials developed in biology. Interestingly, it appears that these will be most used by the community colleges. Publishers have expressed an interest in the materials developed in the poetry project, and it appears likely that these will be commercially marketed.

Autonomous Research Capability

Within each institution there appeared to be a relatively high level of collaboration. A number of projects were in themselves joint efforts involving two or more faculty. In other cases, other faculty were brought in as resource persons. Fiscal officers and administrators seemed to be increasingly able to facilitate the conduct of projects. There remains some doubt that the cadre of specialists hoped for in the first year of the project has as yet been developed at any of the institutions. However, at at least two of them, there is now a small nucleus of persons with experience in the writing of fundable proposals and the management of projects. With the advent of the state supported program described earlier, the number who have been involved in writing proposals and administering projects has increased considerably, and it appears that there will be continuing support to this type of activity.

Inter-institutional Collaboration

At the outset it had been expected that all five institutions would have significant involvement in the program. While this may have been achieved with respect to certain general program and dissemination activities, at only two of the institutions were faculty members actually involved in projects to any appreciable extent.

A special instance of the attempt to achieve a sharing of resources and inter-institutional synergism was in the area of biology. While this did occur to some extent in an informal manner, collaboration was not as structured or extensive as hoped, nor was there profound evidence of its benefits. Except in the overall management of the CORD project, there was little evidence of the pooling of resouces in the pursuit of common objectives, to say nothing of the desirable effects that such pooling might have had.

The State-Supported Program

A legislated program for the improvement of instruction in higher education institutions and community colleges was described in the Results section. It would be pretentious to attribute the existence of this program to the influence of CORD. It was likely and apparent that some program directed at the improvement of instruction would be enacted in any event. However, it does seem plausible that the CORD experience had a shaping influence, and that at least some faculty members were better able to participate because of the prior existence of CORD.

APPENDIX A

Minutes of Governing Committee Meetings

1966

MINUTES

College Research Development Project Governing Committee

November 2, 1966

Members Present: Donald S. Bryant, Dean of Special Services, OTI; Keith H. Larson, Coordinator of Special Education Programs, PSC; Walter E. Snyder, Dean of Instruction, OCE; Carlos E. Easley, Dean of Instruction, EOC; Miles C. Romney, Vice Chancellor for Academic Affairs, Oregon State System of Higher Education, Chairman.

Members Absent: Esby C. McGill, Dean of Faculty, SOC.

Others Present: Jack V. Edling, Director; Bert Y. Kersh, Associate Director; Lester F. Beck, Research Professor; Pat Mahoney, Business Manager, all of the Teaching Research Division, Oregon State System of Higher Education.

The meeting was held on the Oregon College of Education campus.

Dr. Romney explained the circumstances which have prevented the Governing Committee from meeting during the months of August, September and October. Despite the fact that the Governing Committee has not been able to meet, detailed planning for the project has been initiated on the various campuses under the direction of the campus representatives.

Dr. Kersh, initiator of the project and the person designated by Teaching Research Division to coordinate the activities, reported on the background of the project and on preliminary plans for faculty and executive seminars, college workshops, demonstrations, and related activities. The Governing Committee members concurred with the overall structure of the plan and with the suggestions made by Dr. Kersh for a specific time schedule.

Specific dates for the first faculty seminar, business office seminars and executive seminars were determined as follows:

Faculty Seminars:

(1) November 11, 1966, 10:00 to 3:00 p.m., Oregon College of Education.

(2) Week of January 9, 1967

(3) Week of March 6, 1967

Executive Seminars:

(1) December 13, 1966, 1:00 to 4:00 p.m., Portland State College.

Executive Seminars, cont.:

(2) January 24, 1967, Portland State College

(3) Week of May 8, 1967

Business Officer Seminars:

(1) November 30, 1966

(2) Week of January 20, 1967

(3) Week of April 10, 1967

For the executive seminars, Dr. Paul R. Messier, Director, Regional Research Programs, U.S. Office of Education, will be invited to attend the first meeting; and Dr. Lewis Bright, Associate Commissioner, U.S. Office of Education, will be invited to attend the second meeting.

Dr. Carlos Easley indicated that, in selecting faculty representatives from Eastern Oregon College, it had been decided to include in the faculty seminar group one person involved in the biology project, which is the common undertaking involving Eastern Oregon College, Southern Oregon College, and Oregon College of Education. He advised other participating institutions to also include a representative from the biology project to insure continuity in the overall project effort. Mr. Bryant indicated that he would like to have a representative from Oregon Technical Institute involved in the biology project.

Mr. Pat Mahoney, Business Manager, outlined his responsibilities in connection with the project and indicated that he would be in contact with the business officers of each participating institution to work out procedures for cost reimbursement to the colleges and indirect cost apportionment. Dr. Kersh was instructed by the Committee members to continue along the lines that he had outlined and to continue serving as staff representative for Teaching Research Division in place of Dr. Edling, whose name was originally specified in the proposal. Dr. Kersh will devote approximately one-third time to the project over the entire project year, having already devoted considerable time in preparatory activities to insure the success of the project.

The next two meetings of the Governing Committee are scheduled for December 7, 1966, and January 18, 1967, at 2:00 p.m., on the University of Oregon campus.

MEMO November 8, 1966

TO: Governing Committee, College Research Development Project

FROM: Bert Y. Kersh, Project Coordinator

ABOUT: Project activities

The first faculty seminar is scheduled to be held in the Teaching Research Division offices, Room 209, Education Building, Oregon College of Education, November 11, 10:00 a.m. to 3:00 p.m. The topic of the seminar will be, "The Anatomy of a Research Project." Seminar leaders will be Dr. Dale Hamreus, Mr. Casper (Bud) Paulson, and myself. More information concerning the eeminar will be forwarded to soon as possible, but please make arrangements for your selected faculty members to attend in any event. For transportation details, please contact Mr. Pat Mahoney.

I would appreciate receiving from you in writing the persons who will be representing your institution at the faculty seminars, business officer seminars, and executive seminars. Also, please indicate faculty members who have been participating in the planning in connection with the biology project who, presumably, will be continuing in that capacity. The biology project presently is limited to Oregon College of Education, Southern Oregon College, and Eastern Oregon College.

Please indicate your plans for holding the first college workshop which we decided should be scheduled early in December or January. The proposal outlines the intent of the college workshop, but please feel free to structure them in any way you wish. A suggestion was made here, for instance, that the workshop may be structured as a "faculty retreat." Members of the Teaching Research Division staff will be available to assist you in the workshop activities at your campus as indicated in the proposal.

The Teaching Research Division staff is presently planning to hold a series of conferences in connection with simulation and related lavoratory experiences for improving teacher effectiveness. We anticipate having selected persons from over the nation at one meeting to be held in Portland before Christmas. This conference is supported by the Northwest Regional Educational Research Laboratory and will be attended by persons from over the entire Northwest Region. During the months of January, February and March, we will be scheduling demonstrations in conn ection with a series of institutes for modern foreign language college professors. I anticipate that some of the demonstrations will be of general interest to faculty in the participating colleges of the College Research Development Project. These and other planned activities may double as demonstrations in connection with the project; however, I would appreciate having any suggestions regarding demonstrations from the participating colleges.

Finally, as is indicated in the proposal, the Teaching Research Division is responsible for evaluating the entire project activity. As a beginning point, we would appreciate having from each institution a summary of any and all activities initiated by your faculty which may be considered research in nature and which are related to the improvement of undergraduate instruction. I am particularly interested in projects initiated subsequent to July 1, 1965, and prior to November 1, 1966. The faculty projects need not be limited to those supported by federal grants. We are equally interested in those activities which have been supported through federal or private grant funds. From the information that you provide, I would also like to be able to make some qualitative statements concerning the type of projects initiated as they may be related to the improvement of undergraduate instruction. Obviously, the intent is to provide a "bench mark" for future comparison. This information may be at your finger tips now since I understand you have recently submitted a similar report to Dr. Romney in connection with the evaluation of the Mosser Plan.

If you have any questions concerning the project, please do no hesitate to call me. I would be happy to come to your institution and talk with members of your faculty directly, if this would be of any assistance.

MINUTES

College Research Development Project Governing Committee

April 28, 1967

Members Present: Dean Carlos Easley, EOC; Dean Fred Waller, PSC; Mr. James Boyle, OTI (substituting for Dean Paul Meier); Dr. Bert Kersh, OCE (substituting for Dean Snyder); Vice Chancellor Miles Romney, Chairman.

Members Absent: Dean Esby McGill

The meeting was held at the University of Oregon.

Dr. Kersh read the communication from Paul R. Messier, Regional Research Program, U.S.O.E., dated April 10, 1967, concerning the Summer Research Training Institute for CORD participants. The Research Training Institute is to be held August 21 to September 21, 1967, at OCE, and is to be conducted by the staff of the Teaching Research Division. Governing Committee members are instructed to identify faculty members from their institutions who would like to attend the Institute and to send the names to Dr. Kersh before May 8, 1967. If more than two persons are identified, committee members are requested to list the names in order of priority. The Institute will be limited to approximately 50 participants selected from all CORD groups over the nation.

The procedure of using CORD funds to supplement the regular salaries of participating faculty was questioned by Dr. Kersh. Several institutions have had difficulty in finding replacements for those faculty members selected to participate in the CORD program and the participants have contributed their time as an overload assignment. Committee members agreed that the existing OSSHE policy which requires that all overload payments be recommended by the College President and approved by the Chancellor, applies to the CORD Project as well. As a rule, however, overload payments are to be avoided.

Although the proposal for the second year of the CORD Project has not yet been approved, planning will begin immediately for the second year activities. Committee members are asked to submit to Dr. Kersh short descriptions with budget attached of all existing project activities which may extend into the next fiscal year. The narrative of each request should describe primarily those activities which will be carried out after July 1, 1967, and the budgets should also be prepared so as to indicate additional moneys required to complete the project after July 1. These proposals for the second year of the project will be screened beginning immediately by the Research Advisory Committee so that some tentative decisions may be made by the Governing Committee at the May, 1967, meeting. Several institutions already have indicated project

which may be extended into the next year, but it will facilitate planning if the initiators of each project will review their previous documents and make sure they are adequate for each present purposes. Proposals will be reviewed as they are submitted, and the available listing will be mailed to committee members on or about May 15, 1967, for review prior to the meeting scheduled for May 22.

The next meeting is scheduled for May 22, 1967. The meeting will be conducted by telephone. A conference call will be initiated by Dr. Kersh at 2:00 p.m. Notification of the agenda will be sent to committee members prior to that time.

APPENDIX B

Minutes of Governing Committee Meetings

1967

MEMORANDUM DATE: July 26, 1967

TO: Governing Committee, Oregon CORD Program

FROM: Bert Y. Kersh, Executive Secretary

SUBJECT: Summary of New Project and Schedule of Meetings for Governing Committee

I have delayed this long in arranging for our planned telephone conference for two reasons: (1) the listing of new proposals is incomplete, and (2) vacation schedules have interfered with the preliminary screening of proposals by the Research Advisory Committee. Although the situation has not changed, I think we should delay no longer in processing the few applications we do have and in moving ahead with projects carried forward from the first year.

Attached is a listing of the projects which are in my files, not including the biology projects at OCE, SOC, and EOC, which we all know about and which are scheduled to be terminated as CORD projects some time during the fall term, 1967. Perhaps there are other substantial projects which were initiated during the first year and which may be considered to be "continuing projects," but I do not have a tangible record of any other than the biology projects. The attached listing does include some which were initiated late in the first year (or which did not emerge until near the end of the year), but because of their recency I am classing them as "new projects."

A preliminary review of the project listed as new projects by the Research Advisory Committee in the Teaching Research Division (Mr. Casper Paulson and associates), has led to the tentative conclusion that few if any of the new or continuing projects meet the research criteria stated on page 5 of the second year proposal. Specifically, the research criteria are as follows:

1. The end result must have general (not purely local) applicability.
2. The activity must be directed toward results which may be documented or otherwise disseminated.
3. The activity must be directed toward the solution of problems of undergraduate instruction and employ the problem-solving techniques of empirical research.

I propose that we deal with the immediate problem of supporting continuing projects and of responding to requests for support of new projects scheduled to begin immediately in the following manner:

1. That we agree that the biology projects at OCE, SOC, and EOC, should be continued under the support of the Oregon CORD Program through December, 1967, and that each repre-

sentative from the three institutions involved be authorized to expend up to $1,000 of CORD project funds during that period of time, if they are satisfied that the projects are developing satisfactorily. Later the projects would be subject to review and evaluation by the Research Advisory Committee. This review should be scheduled to take place early in the fall term, and additional funds could be allocated to biology project groups thereafter if justified by the Governing Committee.

2. That it be established that each member of the Governing Committee is authorized to approve requests for support of new projects without the approval of the total Governing Committee, provided they meet the following conditions:

   a. In the judgment of the local representative, the new project meets the research criteria in the second year proposal.

   b. The total amount for all such new projects does not exceed $1,000.

New projects authorized in the above manner by local representatives would be reviewed by the Research Advisory Committee and by the Governing Committee as a whole, and would be subject to the termination criteria outlined on pages 5 and 6 of the second year proposal.

Rather than scheduling a telephone conference, I propose to poll the committee by telephone on Friday, July 28, or Monday, July 31. While talking with you, I can determine whether or not your vacation schedules will permit a telephone conference during the month of August. If we all agree to the guidelines suggested above, we may be able to proceed with the CORD project without scheduling a meeting until September.

Minutes

College Research Development Project Governing Committee

October 13, 1967

Members Present: Dean Esby McGill, SOC; Dean Carlos Easley, EOC; Dean Fred Waller, PSC; Dean Bert Kersh, OCE; Mr. Jack Douglas, OTI; Mr. Casper Paulson, Teaching Research Division.

Members Absent: None

The meeting was held in Monmouth, at OCE.

Dr. Kersh referred to the minutes of the January 20, 1967, meeting of the committee, which indicate that the possib..lity of identifing some other person on the Teaching Research Division staff as Project Coordinator was considered, that the Committee decided rather to have Dr. Kersh continue to exercise project leadership, and that he agreed to do so with the understanding that the time and effort he could devote to the project would be greatly reduced.

Dr. Kersh then indicated that, as he had anticipated, his duties as Dean of Faculty at OCE made it difficult for him to exercise leadership of the CORD Project to the extent required, and he recommended that the Committee appoint Casper Paulson of the Teaching Research Division to assume these duties.

It was noted that his reassignment of responsibility would require a reallocation of project funds for this position to the extent of $2,106 salary and $175 employee benefits. After consideration of the proportion of project funds that would be allocated to administration, the proportion of centralized services properly designated as administrative, the importance of preserving adequate funding support for research development on the individual campuses, and the role of centralized services in supporting research development on the several campuses, it was agreed that Casper Paulson be designated as the executive secretary of the Governing Committee, and that the requested funds for salary and benefits be so allocated.

The need to establish guidelines for supporting projects at the various institutions was expressed. Since there was insufficient time for the committee to take action at this meeting, Mr. Paulson proposed for their consideration:

1. That 60% of the project funds designated in the budget as "to be allocated by Governing Committee" be reserved for approved consortium Biology project activities, until the December meeting of the Committee. Of these funds, one half of those not allocated prior to or during the December

meeting would be made available for support of non-Biology projects. Whatever Biology funds remain uncommitted by the February meeting would similarly be made available for other activities.

Consideration leading to this proposed course of action are:

a) It is consistent with the objectives of the proposal by which the CORD project is funded.

b) It is consistent with the intentions and objectives of the Governing Committee, as expressed in the minutes of meetings in the last project year.

c) The Biology project shows promise of leading to a continuing cooperative effort among institutions independent of CORD funding.

d) If individual Biology projects are to achieve inter-institutional significance, and/or to ultimately receive outside funding, a major proportion of available effort and funds will be required.

2. With respect to non-Biology project funds "to be allocated by Governing Committee," it was proposed for consideration that the committee allocate no more than $1700 to any one institution for approved non-Biology rpoejcts until faculty members at all institutions have had adequate time (approximately one month from this meeting) to prepare and present proposals.

   Considerations leading to this suggestion are:

   a) It may serve to increase the number and quality of proposals submitted, and consequently enhance the quality of projects supported.

   b) It will reduce the probability that all available funds have been committed before faculty members at all institutions have had an opportunity to submit proposals.

The above suggestions were presented so that they might be considered by the committee members before the next meeting, which will probably be by telephone conference. Dean McGill requested that Mr. Paulson prepare an itemized budget detailing the implications of these proposals. Mr. Paulson agreed to do this, and supply each committee member with a copy.

MEMO August 1, 1967

TO: CORD Governing Committee

FROM: Bert Kersh, Executive Secretary

After talking with each of you be telephone I can report that there is consensus in support of the guidelines which I sent for your consideration earlier.

For purposes of clarification, let me say again that the expectation is that each institution will not commit more than $1,000 for new projects. This will enable each of you to allocate small sums of money immediately for the support of such new projects. Even though this will provide only a fraction of the amount requested for each new project at OCE, it will enable the initiator to begin. If after being reviewed by the Governing Committee any project of this sort is disapproved, no serious harm will have been done.

I expect now that we will not have to meet again until September. By that time, we may have more definitive recommendations from the Research Advisory Committee concerning the new projects and the continuing projects. Again, let me urge you to send me the following information.

1. A listing of continuing projects such as the biology project together with as much information describing the current status and future plans for each, and a budget breakdown.

2. A listing of new projects with sufficient information for a review by the Research Advisory Committee.

It would be helpful if you could provide a short paragraph description (abstract) of each project so that it will be possible for me to make a new listing without difficulty.

Please plan to be available Wednesday, September 13, at 11 a.m. for a telephone conference. Shall we establish our meeting days to be the second Wednesday of each month at 11 a.m.? Please confirm whether or not you will be available for the September 13 meeting, and whether or not the second Wednesday of each month is a good time for you.

MEMORANDUM DATE: November 14, 1967

TO: CORD Governing Committee

FROM: Bud Paulson

ABOUT: Developing CORD project proposals, and agenda for next meeting.

This memo has a two-fold purpose: to describe the recent activities and conclusions of the Research Advisory Committee, and to recommend a course of action to the Governing Committee.

The Research Advisory Committee, which presently consists of Dr. James Beaird, Dr. Dale Hamreus and myself, has met to examine proposals which have been submitted to date, and to consider establishing evaluation criteria for those and other proposals. Since the only documented guide available to initiators of proposals up to this time is the list of the proposal criteria contained in the CORD proposal to the U.S. Office of Education, the initial screening was to determine to what extent the proposals met those criteria. The statement referred to is as follows:

"For support under the CORD Program, a proposal must meet the following criteria:

1. The end result must have general (not purely local) applicability.

2. The activity must be directed towards results which may be documented or otherwise disseminated.

3. The activity must be directed toward the solution of problems of undergraduate instruction, and employ the problem-solving techniques of empirical research."

Only one of the proposals submitted satisfied all three of these criteria. It is apparent that more proposals are needed and if such proposals are to be evaluated in a meaningful way they will have to speak more explicitly to the above criteria.

In order to facilitate as much as possible, and to inhibit as little as possible, the preparation of acceptable proposals, the Research Advisory Committee has decided not to establish a detailed and rigorous proposal format, but rather to pose a list of questions that indicate certain information that such documents should provide. Thus, with respect to the above three criteria, the proposals should speak to the following questions, either implicitly or explicitly:

Criterion I

Is the problem generally felt?

How widely or urgently?

Is the proposed solution generally feasible, economically and logistically?

Is the information to be obtained generally applicable?

Criterion II

Have you indicated the nature of the final report?

Will it describe both procedures and results?

Will these be replicable and usable by others?

In the case of developmental projects, will a prototype, or design specifications, be available for use by others?

Criterion III

Is the activity directed at a problem in undergraduate instruction in higher education?

It is felt that it is appropriate and necessary for the initiator of the proposal to deal with the above questions. However, if this has been accomplished, it seems similarly appropriate and may frequently be necessary to have the assistance of the research specialists in describing the design, measurement, and analysis to be employed.

In light of the deliberations and conclusions of the Research Advisory Committee, I propose the following to the members of the Governing Committee:

1. That they urge interested faculty members to prepare and submit as soon as possible informal proposals of the type indicated by the above criteria and questions.

2. The Research Advisory Committee will schedule visits to each of the remote campuses (EOC, SOC, OTI) to assist those who have submitted acceptable proposals in planning the design, measurement and analysis portion of their projects. Faculty members at PSC or OCE may request similar assitance on an individual basis.

3. The Governing Committee should meet as early in December as possible to receive the recommendations of the Research Advisory Committee and determine which projects should be funded.

The Research Advisory Committee has also been charged with the responsibility of monitoring the projects funded from allocations made to the various institutions last fall. If conferences can be arranged for these people during our visits to your campus, written progress reports should be unnecessary.

The following agenda is proposed for the December meeting:

a) Determine relative emphasis on biology projects and other projects.

b) Receive report and recommendations regarding existing biology projects, and take appropriate actions.

c) Act on proposed new biology projects.

d) Act on existing other projects.

e) Act on other new proposals.

f) Determine appropriate use of funds for nonproject activity, i.e., films, speakers, etc.

I would appreciate any reactions or addition from you with respect to the above proposed agenda. I will be in telephone contact with each member of the Governing Committee in the next few days to determine appropriate deadlines for proposals, the date for our visit to your campus, and the date for our December meeting.

Minutes

College Research Development Project Governing Committee

December 13, 1967

Members Present: Dean Esby McGill, SOC; Dean Carlos Easley, EOC; Dean Fred Waller, PSC: Dean Bert Kersh, OCE; Mr. Casper Paulson, Teaching Research Division.

Members Absent: Mr. James Boyle, OTI.

The meeting was held in Monmouth, in the Teaching Research Conference Room.

Mr. Paulson presented the report of the Research Advisory Committee, in which the proposals submitted by faculty members were evaluated by ordinal ranking. Priorities were established separately for Biology and non-biology proposals. This report is summarized below. Numbers indicating priority appear in the left hand column. Categorical and total budget figures are provided for comparison with subsequent recommendations.

Summary - Biology Proposals

Priority	Extension New	Initiated by	Personnel	Travel	Supplies	Equip.	Total
1	Ext.	Welton SOC	915				915
2	Ext.	Kerley EOC	600	420			1020
3	Ext.	Walker OCE	675	425	200		1300
4	Ext.	Walker OCE	725		100	1000	1825

Summary - Other Proposed Projects

Priority	Extension New	Initiated by	Personnel	Travel	Supplies	Equip.	Total
1	Ext.	Wallace OCE	1200	80	50		1330
2	Ext.	Albritton OCE	3015		299	1950	5364
3	Ext.	Garrison OCE	2025		586		2611
4	New	Cloer SOC	900				900
5	New	Jambura EOC	563	120	252		935
6	New	Boyle OTI			50	520	570
7	New	Birnbaum OCE	200		275	860	1335
8	New	Davis OCE	850	600	350		1800
9	New	McGraw-Abernathy SOC	410	900	230	183	1723

The executive secretary made the following recommendations to the Governing Committee:

1. That the three highest priority biology projects be funded in the amounts requested.

2. That no further funds be reserved explicitly for biology projects.

3. That among the other proposed projects, the three highest priority proposals, which are for extension of previous efforts, be funded in the amounts indicated in the following table. (These budget changes had been discussed with the parties concerned previously, who indicated that such changes would not substantially impair the projects. In two cases this involved contributing time without reimbursement.)

4. That, of the remaing projects, those with priority rankings four through seven be funded in the amount initially requested.

These recommendations are summarized in the following table.

All proposals submitted were described briefly by the executive secretary and the dean of the initiating institution, and discussed by the committee. The above recommendations were approved by the committee, with the following clarifications. A question was raised regarding the discretionary latitude of project directors and deans with respect to expenditures of the project funds. In one case, it appears that an institution would not be able to grant the released time requested by a project director, even though he has made provision for it in his budget. The committee agreed that project directors and deans should be permitted to use some discretion in the expenditure of project funds, to the extent that it is consistent with the orderly and effective fulfillment of project objectives. All equipment purchases, however, will have to be cleared with USOE.

The committee then agreed to allocate $700 to a simulation project in economics initiated by John Abernathy and Frank McGraw at SOC. This project had already commenced, due to a misunderstanding. Discussion revealed that this partial funding would, in effect, eliminate that portion of the request that was for travel, and that considerable portion of the project objectives could be achieved without this expenditure.

The committee agreed that certain non-project expenditures, for such things as films, speakers, and consultants, and related to the development of research interests and competencies on the individual campuses, would be appropriate. The procedure agreed upon was that requests would be transmitted to the executive secretary, who would include the request on the agenda of the next physical meeting of the committee, or call a telephone meeting if necessary.

It was requested that the executive secretary prepare a new budget summary, reflecting the expenditures of this meeting.

A question was raised as to when we should commence the detailed planning for next year's project activity. It was felt that an important consideration in such planning would be an appraisal of the likelihood and extent of CORD project support for next year, and the availability of small-grant funds. The feeling was expressed that we should plan for more extensive visits of research specialists on the individual campuses, to give individualized help to faculty members in planning research projects.

MEMORANDUM DATE: December 24, 1967

TO: CORD Governing Committee Members

FROM: Bud Paulson

ABOUT: Need for information about expenditures of previously committed funds.

As requested at the December 13 meeting, I have prepared a brief summary of expenditures by category, relative to the amounts originally budgeted. As you can see, the budget picture is incomplete, covering only expenditures of our last meeting. In order to provide a more complete summary, I will need information about the expenditure of the $1000 previously committed to each institution, and the additional $1000 committed to the institutions with Biology projects. Could you summarize briefly the amount you have spent in each category, and the amount as yet unspent?

Summary - Budget Category Expenditures and Balances

	Budgeted	Committed Dec. 13	Balance
Personnel	5,894	5,538	356
Travel	5,000	1,105	3,895
Supplies	1,000	1,892	(892)
Equipment	10,000	3,330	6,670
Totals	21,894	11,865	10,029
Less Amount Previously Allocated			8,025
Uncommitted Balance			2,004

MEMORANDUM DATE: December 29, 1967

TO: CORD Governing Committee

FROM: Bud Paulson

RE: Correction of December 13, 1967 Minutes

Please refer to the second paragraph on page four of the above mentioned minutes. A portion of two sentences were omitted in this paragraph. The entire corrected paragraph is reproduced below and should be added to your CORD file.

"The committee then agreed to allocate $700 to a simulation project in economics initiated by John Abernathy and Frank McGraw at SOC. This project had already commenced, due to a misunderstanding. Discussion revealed that this project has considerable merit, but the project objectives need to be clarified and delimited. It was understood that this partial funding would, in effect, eliminate that portion of the request that was for travel, and that a considerable portion of the project objectives could be achieved without this expenditure."

MEMO

TO: Members of CORD Governing Committee

FROM: Bud Paulson

RE: Necessary actions before the close of the 1967-1968 fiscal and project year.

The purpose of this memo is to propose actions for governing committee approval relative to the 1967-68 CORD project and fiscal year.

The Research Advisory committee has reviewed proposals for new or supplementary funding, and recommends the following:

(1) Garrison - OCE - "Using a Simulation Test to Develop Self-Concepts of Future Teachers," $1368. (New proposal-copy enclosed).

(2) Welton - SOC - "Auto-tutorial Materials for Biology Laboratory Instruction," $660. (Continued project - first phase of 1968-69 effort. Copy of request enclosed).

(3) Birnbaum - OCE - "Auto-tutorial Materials for Poetry Instruction," $80. (Supplementary request for additional project-related expenditures).

(4) Abernathy-McGraw - SOC - "Simulation of Economics Problems," $50. (Supplementary request, copy enclosed).

In addition, I would like to recommend that a copy of the National Research Training Institute manual and workbook be supplied to each academic dean and to each project director who does not already have one. This material was specially prepared for the needs of CORD project participants around the country, and has been in heavy demand since its publication. It seems appropriate that it should have at least as much availability and use in this consortium as in others around the country. Participants in last summer's CORD institute have already received a copy. I suggest copies be supplied to the following people:

Dean Esby McGill	SOC
Dean Bert Kersh	OCE
Acting Dean Frank Roberts	PSC
Dean Carlos Easley	EOC
Mr. James Boyle	OTI
Dr. D.W. Mitchell	SOC
Dr. Frank McGraw	SOC
Mr. John Abernathy	SOC
Mr. Thomas Jones	SOC
Dr. Harold Cloer	SOC
Harriett Tobin	SOC
Dr. David Wallace	OCE
Dr. Jesse Garrison	OCE

Mr. Martin Birnbaum OCE
Dr. John Jambura EOC

Total cost of the 15 manuals and workbooks will be $150.00.

As indicated by budget information supplied to your earlier, the CORD project has an uncommitted balance of $2004. The expenditures I have recommended above total $2308. However, the Harold Cloer project at SOC and the Bud Garrison Student Advisement project at OCE will not be completed as planned by the end of the fiscal year, and the funds allocated to these projects will not be completely spent, and cannot be carried forward into the next year.

Dean McGill has indicated his support of reassigning the unused monies from the Cloer project to Welton's biology project, and Dean Kersh has indicated his support of reassigning funds from the Student Advisement project to Bud Garrison's new project. The unexpended balances of the uncompleted projects will more than cover the apparent deficit noted above.

With respect to any remaining project funds, Dean Kersh has given me a copy of a memo he has sent each of you, recommending the allocation of supplemental funds to Teaching Research to compensate for administration and consultation over and above that anticipated and previously budgeted. While I am confident that such an allocation is justified, and fully appreciate the intent, I feel that such allocation should be made only to the extent that funds remain after all other commitments and expenditures recommended above have been fulfilled. It is true however, that recovering the cost of this extra effort within this fiscal year will enable more flexibility in providing similar service in the next project year. For this reason, I request that the committee authorize this use of project funds remaining in this fiscal year's budget.

While all of the foregoing matters regard the 1967-1968 project year, I would also like to make one additional recommendation with respect to the 1968-1969 project year. We have just today received formal notice of approval of the 1968-1969 project, in the amount of $34,000.

The Welton Biology project at SOC has been one of our most productive and promising projects, the products of which may prove to be useful at several state institutions. Funds for a portion of the next phase of the project were requested above, from 1967-1968 funds. In addition, I feel that it would be prudent at this time to commit ourselves to the support of a substantial portion of the remainder of the summer phase of the project. I suggest we approve support for items 2, 3, and 4 on page one of Welton's May 13 proposal (copy enclosed). This would total $2,350. If CORD can provide these funds, Teaching Research will cover the remainder of the salary request for Welton and Mitchell. CORD could hardly afford to cover the developmental costs

of materials and still do justice to other projects, and Teaching Research uses considerable potential in the materials for use in other schools, so cooperative funding seems to be appropriate and necessary. A decision by the Governing Committee at this time will permit Dean McGill and Drs. Welton and Mitchell to make the necessary staffing and other decisions necessary to accommodate the project in the coming academic year.

I hope that you will have received and read this by the time I call you for your reactions to the above recommendations, which must be implemented, except for the last proposed action, before the end of the fiscal year.

Sincerely,

Casper F. Paulson Jr.

Casper Paulson Jr.
Executive Secretary

APPENDIX C

Minutes of Governing Committee Meetings

1968

M E M O R A N D U M

TO: Members of the CORD Governing Committee

FROM: Bud Paulson DATE: July 16, 1968

RE: Actions approved by June 28 telephone canvass, and announcing next meeting

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Members of the Governing Committee, or appropriate alternates, approved the following actions proposed in the memo of June 24:

A. Projects

(1) Garrison - OCE -"Using a Simulation Test to Develop Self-Concepts of Future Teachers," $1,368. (New proposal)

(2) Welton - SOC - "Auto-tutorial Materials for Biology Laboratory Instruction", $660. (Continued project)

(3) Birnbaum - OCE - "Auto-tutorial Materials for Poetry Instruction", $80. (Supplementary request for additional project-related expenditures).

(4) Abernathy-McGraw - SOC - "Simulation of Economics Problems", $50 (Supplementary request)

B. CORD Research Training Manuals:
Copies will be supplied to the following people:

Dean Esby McGill	SOC
Dean Bert Y. Kersh	OCE
Acting Dean Frank Roberts	PSC
Dean Carlos Easley	EOC
Mr. James Boyle	OTI
Dr. D. W. Mitchell	SOC
Dr. Frank McGraw	SOC
Mr. John Abernathy	SOC
Mr. Thomas Jones	SOC
Dr. Harold Cloer	SOC
Harriett Tobin	SOC
Dr. David Wallace	OCE
Dr. Jesse Garrison	OCE
Mr. Martin Birnbaum	OCE
Dr. John Jambura	EOC

C. Supplementary funds for administration and consultation:

To the extent that there is an unexpended balance of 1967-1968 project funds, they will be allocated to Teaching Research to compensate for administrative and consulting services over and above that which was anticipated and budgeted for.

D. Biology Project

From 1968 - 1969 project funds, a grant of $2,350 to Dr. Welton and Dr. Mitchell of SOC was approved, for project activities during the summer.

There are a few grant applications now that require starting times before school opens in the fall. These will be rated by the Research Advisory Committee, and recommendations supplied to the Governing Committee. It appears that the most convenient meeting time will be July 29, when most of you will be attending the meeting of the Interinstitutional Committee on Extension and Public Service, in Ashland. Since I have another commitment on that day, Dean Kersh will preside, at a luncheon meeting. He will contact you about time and place details.

While it seems prudent to get some projects started before the end of the summer, I hope that some funds can be held back for next fall, and that in the interim each of you will encourage staff members to submit proposals through you.

Casper F. Paulson
Executive Secretary

MEMO

Date: July 29, 1968

To: CORD Governing Committee
From: Bud Paulson
Re: Funding actions on CORD project proposals

To date, eleven propoaals have been submitted for CORD funding. They are listed below, in rank order as assigned to them by the Research Advisory Committee. Since I have been on a "dissertation vacation," the committee consisted of Dr. Dale Hamreus, Dr. Frank Nelson, and Mr. Thomas Haines.

Rank	*Summer Start-up	Initiator	Institution	Project	Request	Recommended
1		Welton	SOC	Auto-tutorial biology	$3,455	$1,163
2	*	Birnbaum	OCE	Poetry	1,660	1,560
3	*	Garrison	OCE	Simulation test of self-concepts	386	386
4		Boyle	OTI	Effects of behavioral Objectives	484	
5	*	Rossi	OCE	Videotape speech evaluation	617	617
6		Underwood	OTI	Audiotape English evaluation	300	
7		Albritton	OCE	Advisory board exercise	1,865	
8	*	Garrison (Lautenbach)	OCE	Student advisement	3,315	2,040
9	*	Singh	OCE	Pass-fail grading system	2,761	1,194
10	*	McGraw-Abernathy	SOC	Simulation in economics	2,750	1,352
11		Davis	OCE	English	1,209	
						$8,312

Six of the projects call for a summer start-up, necessitating funding decisions, at least for those projects, at this time. These projects are identified by an asterick. A decision should also be made on the Welton project, since this requires one quarter of released time, necessitating staffing arrangements for the fall term. Fall projects

were included in the ratings to give a more adequate basis for comparison and judgment as to how many projects should be funded at this time, and to what extent. While I don't propose to "second guess" the ratings, I would like to augment them with a few comments, particularly where budget recommendations are less than the amount initially requested.

For the reasons stated above, and because of the merit of the project, I believe that the Welton biology project should be approved at this time. The difference between the amount requested and that recommended represents .75 FTE for Dr. D. W. Mitchell, which will be covered by Teaching Research for the materials development activity required. The remainder, to be covered by CORD, is for prototype production and experimental activity. Drs. Welton and Mitchell are preparing a small-grant proposal to USOE which hopefully will pick up where this project leaves off, at the end of fall term.

Birnbaum's poetry project represents an interesting case where dissemination may outrum validation. Negotiations are being finalized with a well-known publisher to distribute the package nationally, but while the present materials appear to be quite effective, it seems urgent that they undergo further validation and refinement before they are widely distributed.

Garrison's simulation proposal is an exciting off-choot from Dean Kersh's earlier program of research, now familiar to educational researchers throughout the nation. A proposal for outside funding is being prepared. This modest request will foster project activity until such funding is received.

The student advisement project is a modified continuation from last year. Though submitted by Dr. Garrison, it will be administered

by Dr. Ruth Lautenback. Dean Kersh has indicated that the recommended level of support is satisfactory. The level of college support should be noted.

A portion of Dr. Singh's request was for activity beyond the end of this fiscal year, so only the amount for this year is recommended. If the project cannot be completed because of this reduction, it should not be approved, since there will be no CORD funding available next year. While a number of institutions have utilized the pass-fail system, systematic research and evaluation is rare, as indicated by the nature of responses to inquiries sent ou by Dr. Singh.

The relatively low rank assigned to the Abernathy-McGraw project was not due to defects in the proposal, I understand, as much as to the absence of evidence of accomplishment from last year's project. In balance, it should be considered that the project was funded at less than half the requested level, that it was redefined and delimited during the year, and that the first phase of the project, by its nature, yielded little that was tangible. Though the committee has read the most recent progress report on this project, I have been assured that a more detailed and comprehensive report will be submitted early in September, which I indicated was an acceptable arrangement. Since a separate request was incorporated for summer activities, it seems reasonable to grant that amount now, and consider the remainder along with other projects in the fall when more information is available.

The last project requiring a summer start-up is Rossi's speech project. Clearer definition is required, I think, but I also believe that this can readily be achieved.

In summary, there are certain advantageous aspects to projects starting in the summer. Faculty members have relative freedom to give projects their undivided attention, and the early start makes completion before termination of the CORD project more likely. On the other hand, over-committing funds at this time may deprive fall projects of an equitable consideration. Particularly should we be concerned with dispersion of project activities among members of the consortium, without compromising quality of the project.

I believe that we can fund each of the projects for which decisions are required now, at the levels I have recommended, and still be able to support a few good projects this fall. The total amount to be allocated to projects this year is some thing over $14,000. I don't have the exact figure at hand as I write this. The total required for the seven recommended projects is $8,312. This would leave approximately $6,000 for fall projects.

It might even be appropriate at this time to approve one or both of the OTI requests, since they are quite modest, involve considerable institutional contribution, were rated relatively high, and represent the only requests from that institution.

I hope that these comments, which are more lengthy than I had intended, are seen as helpful, not presumptions. I'm sorry I was unable to attend this meeting.

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Minutes

Consortium Research Development Project Governing Committee

July [illegible], [illegible]

[illegible] Present: Dean Erby McGill, SOC; [illegible] Carlos Easley, EOC; Mr. Jack Douglas, OTI (representing Mr. [illegible] Boyle); and Dean Bert Karch, OCE.

[illegible] Absent: Dean Fred Muller, PSC; Mr. Casper Paulson, Teaching Research Division; and Vice Chancellor Miles Romney, OSSRE.

The meeting was held on the campus of [illegible] Oregon College. Dean Karch acted [illegible] at the request of Mr. Paulson, Executive Secretary for the committee. [illegible] memorandum addressed to the [illegible] Governing Committee from Mr. Bud Paulson [illegible] funding actions on 11 CORD project proposals which had been transmitted [illegible] executive secretary since the beginning of the fiscal year. A copy of the [illegible] is attached with these minutes in the files of the executive secretary.

Of the 11 proposals which were screened and ranked in order of priority by [illegible] in Teaching Research, the following were approved in the amounts indicated:

[illegible]	Institution	Project	Request	Approved
[illegible]	SOC	Auto-tutorial biology	$3455	$1163
[illegible]	OCE	Poetry	1660	1560
[illegible]	OCE	Simulation test of self-concepts	385	386
[illegible]	OTI	Effects of behavioral objectives	484	484
[illegible]	OCE	Videotape speech evaluation	617	617
[illegible]	OTI	Audiotape English evaluation	300	300
[illegible]	OCE	Advisory board exercise	1865	(tabled)
[illegible]	OCE	Student advisement	3315	2040
[illegible]	OCE	Pass-fail grading system	2761	1194
[illegible]	SOC	Simulation in economics	2750	1352
[illegible]	OCE	English	1209	(tabled)
				$9096

[illegible] Albritton and Davis projects were not disapproved; rather, they were tabled for [illegible] at a future meeting.

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Dean McGill pointed out that one project identified as an SCC project initiated by Mr. Stafford was not included in the listing of projects reviewed. The project had been submitted on Mr. Paulson's behalf for consideration at this meeting. The project is titled, "A College Calculus Course Designed to Meet the Interests and Needs of Students in Various Disciplines." Dean McGill requested that it be considered by the Governing Committee so that Mr. Stafford could initiate the project during the fall term. It was decided that the project should first be reviewed by a research committee but, if favorably reviewed as a research project under the COMP program, Paulson should be advised that support in the amount of $385 could be allocated to the project without further action by the Governing Committee.

Comments and Recommendations to

CORD Governing Committee - 1-6-69

1. All formally submitted proposals were reviewed, commented upon, and ranked independently by the Research Advisory Committee, which was composed of Dr. Dale Hamreus, Dr. Frank Nelson, and myself.

2. One of the proposals was tabled at the last funding meeting, and reconsidered here (Albritton - OCE).

3. One proposal tabled at the last meeting has since been withdrawn (Davis - OCE).

4. At least two proposals in which we assisted in planning were never submitted in final form (Briggs-Decker - EOC; Yost - OCE).

5. Summary of projects reviewed:

Initiator	Institution	Subject	Total	Rank
Wallace	OCE	Music	$1,200	1
Head	EOC	Botany	960	2
Warnath	OCE	Large Group Int.	1,540	3* tie
Singh	OCE	Pass-No Pass	667	3* tie
Hermens	EOC	Computers-Phys. Chem.	300	5
McDowell	SOC	Reading	414	6* tie
Albritton	OCE	Advisory Board	1,865	6* tie

6. While no project was ranked exactly the same by all reviewers, none of the top four received a ranking lower than fourth by any reviewer, and none of the three remaining projects was rated higher than fifth by any reviewer.

7. The Research Advisory Committee is of the opinion that none of the three lowest ranked proposals should be funded, even if funds were available, for the reason that each is of relevance to only its own institution, or fails to employ appropriate scientific problem solving techniques.

8. Funding of the four top ranked proposals (Wallace, Head, Warnath, Singh) is recommended.

9. By agreement with him, the Wallace request has been reduced to $1200.

10. Of the $4849 remaining to be allocated, the above projects would require $4367, leaving a balance of $482.

11. When final determination is made of last year's actual expenditures, it may prove possible to fund one additional project, or more than one if they are small enough.

12. Reimbursement for overhead for last year's projects will be prorated on the basis of actual expenditures, as described in the proposal for that year.

STATE OF OREGON

INTEROFFICE MEMO

FORM 81-125.031

TO: Dr. Casper (Bud) Paulson

DATE: January 7, 1969

FROM: Bert Y. Kersh

SUBJECT: Meeting of the CORD Governing Committee, January 6, 1969

I met with members of the CORD Governing Committee as you requested and reviewed with them the request for support from individuals in the participating institutions. The materials you gave to me were used as a basis for the discussion. Dean Esby McGill, SOC, and Dean Carlos Easley, EOC, were the only members present other than myself.

On the basis of the recommendations from the Research Advisory Committee, the first three proposals listed in your notes (Wallace, Head, and Warnath) were tentatively approved. In addition, the proposal submitted by Briggs and Decker, EOC, was reviewed and recommended for funding at a reduced cost ($500-$1000). The amount of the Briggs-Decker project is to be negotiated by you and Dean McGill.

Final approval of this decision is pending the endorsement of Dean Esby McGill, SOC, who requested an opportunity to review the proposal in greater detail before committing himself. He request that you telephone him on Friday, January 10, 1969, for his reaction.

Should additional funds be available to support projects, the Governing Committee recommends that consideration be given to the extension to the Singh project, but that the decision regarding the use of remaining funds should be made after a review of alternative proposals. In other words, the Governing Committee members would appreciate telephone communication from you before a final decision is made regarding the allocation of remaining resources.

Finally, the committee requests that serious consideration be given to some effort at dissemination. Could you organize a research conference in addition to documenting the research results?

lw

APPENDIX D

AN ACT

Relating to the Educational Coordinating Council; appropriating money; and declaring an emergency

CHAPTER 566

AN ACT

Relating to the Educational Coordinating Council; appropriating money; and declaring an emergency.

Be It Enacted by the People of the State of Oregon:

Section 1. The Educational Coordinating Council shall administer a program of grants or awards to encourage the development or implementation of alternative techniques or procedures designed to improve instructional effectiveness or efficiency in public two-year colleges and four-year institutions of higher education in Oregon. Such grants or awards may be made to instructional personnel, the institutions or their subdivisions, or other public educational agencies and may be made to instructional personnel in the form of salary augmentation to encourage or reward efforts under this program.

Section 2. The Educational Coordinating Council shall develop criteria for the preparation of applications and procedures for the submission, evaluation, priority selection and award of such grants or awards. The council's criteria and procedures shall be designed to assure that:

(1) Projects are directed primarily to the improvement of undergraduate instruction.

(2) Project objectives are stated clearly and the effectiveness of a project is capable of objective evaluation in terms of the improvement of instructional effectiveness and efficiency.

(3) The project design provides a basis or procedure for the objective evaluation of its effectiveness through a demonstration of the learning achievements of students.

(4) Projects have administrative and fiscal feasibility, there is evidence of departmental and institutional commitment to support and implement the project, and there will be cooperation with the council in an evaluation of the effectiveness of the project.

Section 3. The Educational Coordinating Council shall administer a program designed to stimulate the development of courses of study or parts of courses to improve instructional effectiveness or efficiency in public two-year colleges and four-year institutions of higher education in Oregon. The council may contract with the State Department of Higher Education or other appropriate public educational agencies to develop program materials and to establish a mechanism at each institution for the purpose of introducing the materials and implementing the techniques.

Section 4. The projects authorized by this Act should be designed to:

(1) Develop and test courses of study or parts of courses which feature predictable student achievement of prestated student performance objectives. The council should give priority to lower division, high enrollment courses or parts of such courses.

(2) Stimulate the implementation of innovative approaches to instruction with the various institutions, providing training programs as necessary to familiarize faculty and administrators with newly developed instructional methodology.

Section 5. The Educational Coordinating Council shall appoint an advisory committee which is broadly representative of the institutions and with such other members as the council deems appropriate, to assist the council in carrying out the provisions of this Act.

Section 6. The Educational Coordinating Council shall submit semi-annually a report to the Legislative Fiscal Committee containing a summary of the activities under this Act for the period covered by the report.

Section 7. There is appropriated to the Educational Coordinating Council, for the biennium beginning July 1, 1969, out of the General Fund, the sum of $500,000, for the purpose of carrying out the provisions of sections 1 and 2 of this Act, and the sum of $250,000, which sum may be expended only for the purpose of carrying out the provisions of sections 3 and 4 of this Act.

Section 8. This Act being necessary for the immediate preservation of the public peace, health and safety, an emergency is declared to exist, and this Act shall take effect July 1, 1969.

APPENDIX E

Excerpts From:

"Observer Effects of Students' Perceptions
Of Good College Teaching"

H. A. Cloer
Southern Oregon College

INTERIM REPORT

Observer Effects on Students' Perceptions Of Good College Teaching

H. A. Cloer
Professor, Psychology
Southern Oregon College

1. The Problem

The research problem is to determine the nature and extent of the shaping of students' perceptions of good college teaching by their own personal and situational characteristics. At present so little is known of the factors influencing students' perceptions of teaching, and these perceptions are so mistrusted by college instructors, that this potential source of feedback on teaching effectiveness is poorly utilized.

It is hoped that this investigation will suggest steps whereby the students' personal and situational characteristics can be accounted for in any attempts at using students' observations as feedback information for the improvement of college instruction.

Specifically, it is hypothosized that the classroom behavior and personal qualities reported by students as characterizing their "Best Professor" will differ significantly if the students' own personal characteristics (e.g., "intellectuality", motivation for grades, emotional independence, etc.) or situations (class level, graduate school plans, success with college work, etc.) differ significantly.

2. The Method of the Study

The subjects in the study population constitute a 10% random sample (N=278) of the full-time enrollment at Southern Oregon College, Ashland, Oregon, during the Spring term, 1966. (The nature of this sample is fully described in a separate report which is available from the researcher).

The dependent variables of the study (the students' reports of the classroom behaviors and personal qualities of their "Best Professors") were produced in this manner: (1) the subjects were instructed to think back over the instructors that they had had thus far in college and select one who they could defend as being "my best professor"; (2) they were then to describe that professor by checking relevant adjectives on the Gough-Heilbrun Adjective Checklist, and to describe his classroom behavior by responding to Cosgrove's Diagnostic Ratings of Teacher Performances and Astin's Classroom Climate Scales; (3) the traits found to be related to the independent variables were then rated by a student group and a faculty group for their implications in four professor roles: as a teacher, a scholar, an adviser, and a member of the college community.

The independent variables of the study are some 50-60 personal and situational characteristics of members of the study sample (e.g., complexity of personality, satisfaction with the college, study efficiency, types of instruction preferred, etc.) as these have been reported in two devices: the ETS College Student Questionnaires, and the Omnibus Personality Inventory, form O.

The procedure then is to identify sub-groups within the study sample who represent the extremes on the independent variables, contrast the descriptions of the "Best Professors" for these sub-groups, select out the traits found to differentiate for the sub-groups, and have these judged for their implications for the various roles which college professors play.

3. Initial Results From the Study

The data has been collected and put into IBM cards, programs have been written, and perceptions of "Best Professor" have been analyzed for several independent variables: scholarliness, emotional independence, family socio-economic status, social-cultural awareness, motivation for grades, and satisfaction with the college. However, at the present time only the data for the first independent variable, student "scholarliness", has been examined and judged for relevance to the various professorial roles. This interim report, then, deals only with this one variable.

3.1 The independent variable "student scholarliness" is constituted by two 11-student groups that contrast greatly on seven factors:

"Student Scholarliness" Factors	Position on Each Factor: "Scholarly Students" (N = 11)	"Non-Scholarly Students" (N = 11)
(1) Self-report of an academic approach to college as self-descriptive: "While other aspects of college life are not to be forsaken, this philosophy attaches greatest importance to interest in ideas, pursuit of knowledge, and cultivation of intellect."	"most-descriptive" or "2nd-most-descriptive"	"least-descriptive" or "2nd-least-descriptive"
(2) Scores on the three scales of the Omnibus Personality Inventory, form O, which make up an "intellectuality factor":		
(a) Interest in ideas and liking for reflective thought	mean standard score: 61.9	mean standard score: 41.5
(b) Theoretical orientation, interest in using scientific methods in thinking, and logical, rational, and critical approaches to problems	mean standard score: 64.9	mean standard score: 38.6
(c) Complexity of personality, an experimental orientation, and fondness for novelty	mean standard score: 63.5	mean standard score: 38.7
(d) Originality, independence of judgement, rejection of suppression, and novelty of insight	mean standard score: 61.9	mean standard score: 40.5
(3) Attitude toward original research assignments	"like"	"dislike"
(4) Cumulative grade-point-average	"B" or more	"C" or less

3.2. The independent variable, the perceptions of the personal characteristics and classroom performances of the "Best Professors" of the scholarly and non-scholarly students are summarized by the profiles appearing as figures 1 & 2.

Figure 1, the ACL profile, shows these "Best Professors" to be seen as having both similarities and differences in need-structure. These are the traits that are more characteristic of the "Best Professors" of the scholarly students:

Trait	Standard Score of ACL Composite of scholarly students	Standard Score of ACL Composite of non-scholarly students
Self-confidence	70	51
Need for achievement	69	56
Need to lead and dominate	68	56
Need to understand behavior of self & others	67	56
Need for novelty and avoidance of routine	55	45
Need to persist in any task undertaken	70	62
Need for neatness, organization & planning	63	55

And these are the personality traits more characteristic of the "Best Professors" of the non-scholarly students:

Need for interaction with the opposite sex	43	56
Need to gain the attention of others	54	60

The ACL profiles are derived from the adjectives used by the respective sub-groups in describing the "Best Professor". Composite ACL's were prepared by using the adjectives endorsed by 1/3 or more of the sub-group, and scoring this by the keys developed by Gough and Heilbrun. Only five adjectives were used significantly (0.05 level) more often to describe the best professor of the non-scholarly group:

Adjective	Percent Endorsing	
	Scholarly Students	Non-Scholarly Students
Relaxed	0%	82%
Suggestible	9	45
Wise	45	82
Jolly	18	55
Peaceable	36	73

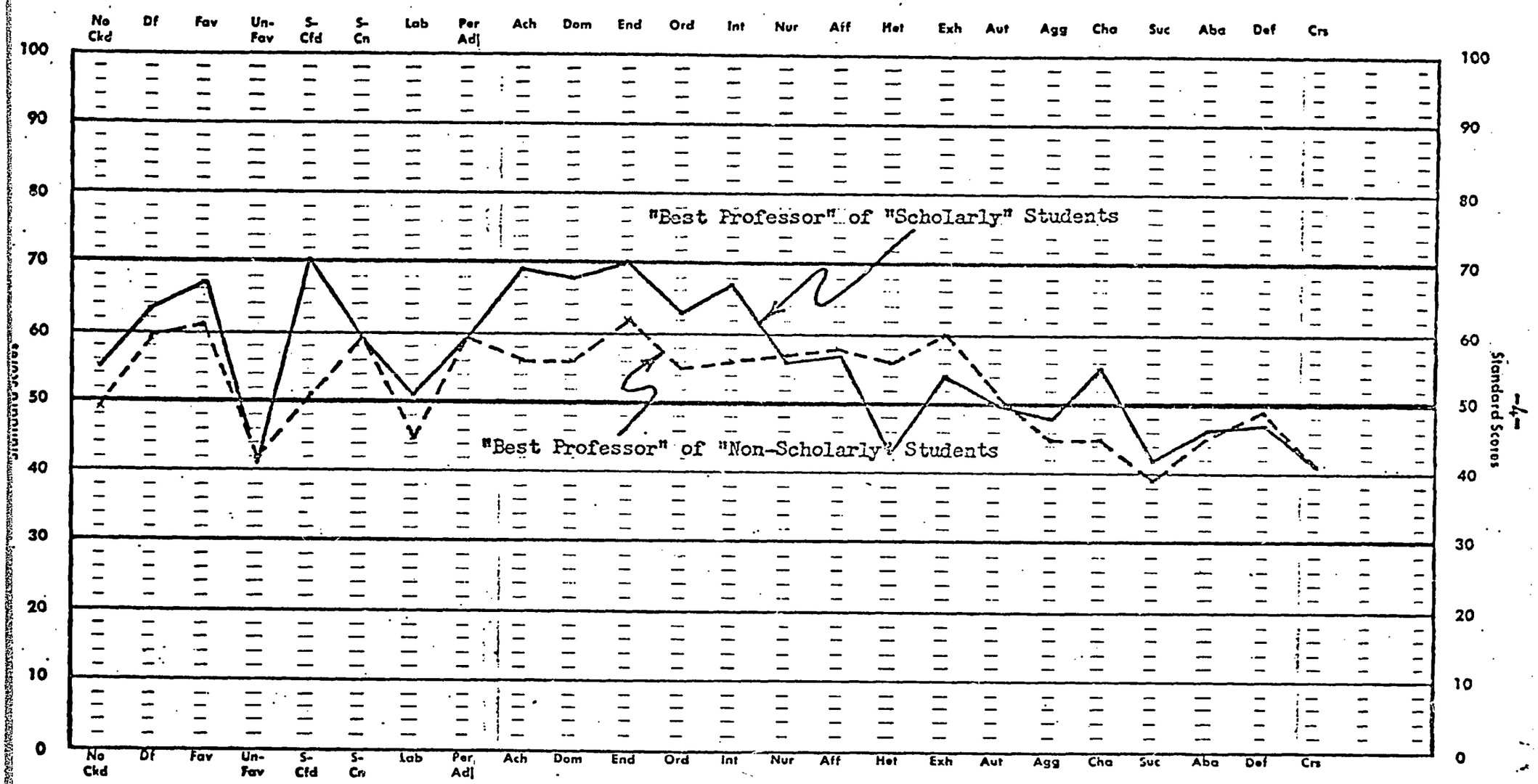
PROFILE SHEET FOR THE ADJECTIVE CHECK LIST

Figure 1

"Best Professor" Needs As Seen By "Scholarly" and "Non-Scholarly" Students

Name _____ *Age* _____ *Date* _____

Sex (circle one) M F *Other Information* _____



	No Ckd	Df	Fav	Un-Fav	S-Cfd	S-Cn	Lab	Per Adj	Ach	Dom	End	Ord	Int	Nur	Aff	Het	Exh	Aut	Agg	Cha	Suc	Aba	Def	Crs			
T	55	63	67	41	70	59	51	59	69	68	70	63	67	56	57	43	54	50	48	55	42	46	47	41			Schol.
Raw	49	59	61*	42	51*	59	45*	59	56*	56*	62*	55*	56*	57	58	56*	60*	52	45	45*	39	45	49	41			N.Schol.

☐ Norm Table

*difference in scale scores exceeds 0.5 s.d.

Reproduced from the Manual for the Adjective Check List, by Harrison G. Gough, Ph.D. and Alfred B. Heilbrun Jr., Ph.D. Copyright 1965 by Consulting Psychologists Press, Inc. Palo Alto, California. All rights reserved.

Adjective Check List Scales*

The ACL is a 300-item list of adjectives, in which the respondent checks those which he believes to be self-descriptive. Various clusters and combinations of adjectives have been identified, and may be scored. At present, 24 scales (clusters) are recommended for scoring; theses scales are named and defined below. Scores are plotted on a profile sheet, where each scale has a mean of 50 and standard deviation of 10.

No. Ckd = total number of items checked.

Df = "defensiveness," tendency to minimize defects and imperfections.

Fav = number of favorable items checked (75 of the 300 items are defined as "favorable").

Unfav = number of unfavorable items checked (75 of the items are defined as "unfavorable").

S-Cfd = self-confidence cluster.

S-Cn = self-control cluster.

Lab = lability (changeableness) cluster.

Per Adj = personal adjustment cluster.

Ach (achievement): Measures strength of desire to be outstanding in pursuits of socially recognized significance.

Dom (dominance): Measures strength of desire to seek and sustain leadership roles in groups or to be influential and controlling in individual relationships.

End (endurance): Measures tendency to persist in any task undertaken.

Ord (order): Measures the amount of emphasis one places on neatness, organization, and planning in one's activities.

Int (intraception): Measures the strength of the desire to understand one's own behavior or the behavior of others.

Nur (nurturance): Measures the desire to engage in behaviors which extend material of emotional benefits to others.

Aff (affiliation): Measures the desire to seek and sustain numerous personal friendships.

Het (heterosexuality): Measures the need to seek the company of and derive emotional satisfaction from interactions with opposite-sexed peers.

Exh (exhibition): Measures need to behave in such a way as to elicit the immediate attention of others.

Aut (autonomy): Measures the need to act independently of others or of social values and expectations.

Agg (aggression): Measures the need to engage in behaviors which attack or hurt others.

Cha (change): Measures need for novelity of experience and avoidance of routine.

Suc (succorance): Measures need to solicit sympathy, affection, or emotional support from others.

Aba (abasement): Measures need to express feelings of inferiority through self-criticism, guilt, or social impotence.

Def (deference): Measures need to seek and sustain subordinate roles in relationship with others.

Crs (counseling readiness): Measures the kind of dissatisfaction with current status which predisposes a person to seek counseling and to profit from it.

*See H. G. Gough & A. B. Heilburn, Jr., The adjective Check List Manual. Palo Alto, California: Consulting Psychologist Press, 1965.

On the other hand, 22 adjectives were used significantly (0.05 level) more often by the scholarly students in describing their best professor:

Adjective	Percent Endorsing	
	Scholarly Students	Non-Scholarly Students
Sensitive	73%	0%
Enterprising	82	18
Insightful	73	9
Idealistic	64	9
Optimistic	64	9
Demanding	73	18
Sophisticated	73	18
Conscientious	100	55
Rational	100	55
Inventive	55	9
Mannerly	91	45
Self-Controlled	91	45
Imaginative	82	36
Civilized	100	64
Ingenious	36	0
Painstaking	45	9
Pleasant	100	73
Discreet	55	18
Forceful	55	18
Obliging	55	18
Persevering	55	18
Resourceful	82	45

Other elements of the dependent variable are illustrated in Figure 2, the profiles of the dimensions of classroom performances of the "Best Professors" of the scholarly and non-scholarly students. Again it can be seen that there are both resemblances and non-resemblances between the two professors. There are no particular differences in "knowledge and organization of subject-matter," "adequacy of plans and procedures in class", or "extent to which the class was highly structured". The perceived differences had to do with human relationships: the "Best Professor" of the scholarly group showed less "adequacy of relations with students in class," but greater "enthusiasm in working with students" and "freedom of expression in the class".

The following are specific classroom factors significantly (0.05 level) seen as more often characterizing the "Best Professor" of the scholarly students:

Classroom Factor	Proportion Endorsing: Scholarly Students	Non-Scholarly Students
The instructor maintained a businesslike atomosphere	41%	0%
The instructor often called students by their first names	82	45
Students sometimes argued openly with other students in the class	53	18
The instructor made the material significant	65	30
Students often spoke up in class, even if not called on	65	36

On the other hand, these classroom factors were seen as more often characterizing the "Best Professor" of the non-scholarly students:

Instructor did not ridicule wrong answers	18%	60%
The instructor understood the problems of students	18	60
The course content tended to be more practical than theoretical	24	64

3.3 Role Implications of the Differentiated Traits.

Next, an investigation was made of opinions about the implications of the differentiated traits for the various roles that professors play. To make the judging less difficult, the traits were judged in groups of 6-8. As seen in the accompanying rating sheets, the traits more often seen by the unscholarly students were attributed to a "Professor A", a "Professor B" and a "Professor C". The traits seen more often in their best professors by the scholarly students were attributed to "Professors D-H". Thirty-nine students and 17 professors then estimated the implications of these differentiated traits for effectiveness in four roles: teacher, scholar, adviser, and member of the college community.

Figure 2. Classroom Performances of the "Best Professors" of Students Differing on Scholarliness

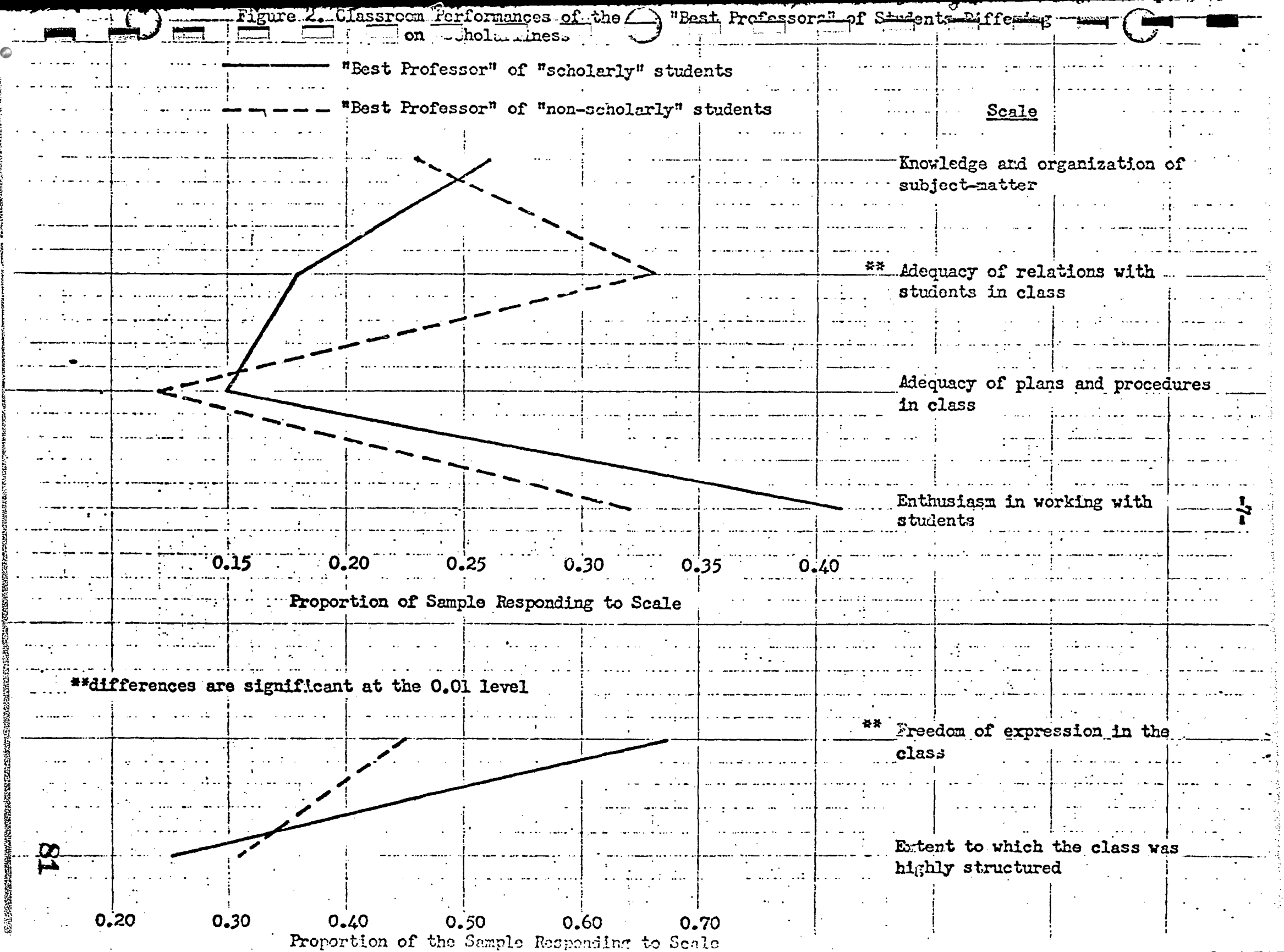


Figure 3 shows the estimates of role-effectiveness from the traits seen more often by the non-scholarly students ("Prof A-C") and that estimated from the traits seen more often in the best professor of the scholarly students ("Prof D-H"). While the main impression given by Figure 3 is that the judges did not see the two groups of traits as producing great differences in role-effectiveness, the differences seen did tend to be in the expected direction. That is, both "Prof A-C" and "Prof D-H" were seen as generally being in the "superior" range of the rating device. But "Prof A-C" was seen as being somewhat more effective as an "adviser" and somewhat less effective as a "scholar," while the converse was seen for "Prof D-H".

The raters who were students (19 who were in an Ed Psych, Evaluation, class, and 20 who were in a Psych, Personality Measurement, class) tended to see both groups of traits as predicting greater effectiveness in all roles than was the case with the raters who were professors (10 who were in the Ed & Psych Division, and 7 who were on the college's Instructional Council). The raters who were professors were noticeably less generous in their estimates of "Prof A-C"'s effectiveness as a scholar.

The dispersions of the ratings of effectiveness are shown in Figure 3 as inter-quartile ranges of the ratings. The role which the judges had the least disagreement about was that of "member of the college community;" this was true of the estimates for both "Prof A-C" and "Prof D-H". With each, however, there was considerable dispersion of ratings on the role each was judged as most effective in. The significant exception to this was the student-raters' estimates of "Prof D-H"'s effectiveness as a scholar: there was greater rater agreement on this judgement than for any of the other 15 judgements. And both students who were raters and professors who were raters tended to be more in agreement in their ratings of "Prof D-H" than in those for "Prof A-C".

4. Discussion of the Results

Since these are results from but one of some 50-60 independent variables to be investigated, it is premature to attempt to summarize or draw conclusions. However, the researcher is encouraged by these very preliminary findings. The main goal of the project is to devise effective methods for handling the various variables that are associated with the perception of good teaching. At this point the project promises to be a good vehicle for working toward that end. Figure 3, for example, provides several intriguing questions: why, contrary to all opinion measurement theory, are the more extreme judgements the more ambiguous; why did the student raters show such agreement in their ratings of "Prof D-H"'s effectiveness as a scholar; why, in general, is there more agreement in judging effectiveness in the "member of the college community" and "teacher" roles than in judgements of effectiveness as a scholar or adviser.

It is anticipated that the research will lead to a great many significant research questions. Another member of the Psychology Department at Southern Oregon College has already decided to use the current project as a pilot study for later attempts at more fully investigating some of these questions. And the current researcher expects to gain insights which will be of considerable value as he also works to establish an "Instructional Feedback Service" at S.O.C. which will rely heavily on students' observations of instruction.

Figure 3. Estimated Role Effectiveness (Judged From Differentiated Traits)

A. Estimated Role-Effectiveness of Prof A-C

Role	Q_2 Of Prof's Ratings (n=51)	Q_2 Of Students' Ratings (n=118)
Adviser	5.9	5.8
Member College Commun.	5.2	5.3
Teacher	5.1	5.1
Scholar	4.4	5.3

B. Dispersion of Ratings of Effectiveness of "Prof A-C"

	Q_3-Q_1 For Prof's Ratings	Q_3-Q_1 For Students' Ratings
Member College Commun.	2.6	3.1
Teacher	3.6	3.9
Scholar	4.0	4.0
Adviser	4.6	4.0

C. Estimated Role-Effectiveness of Prof D-H

	Q_2 Of Prof's Ratings (n=92)	Q_2 Of Students' Ratings (n=118)
Scholar	6.3	6.7
Teacher	6.1	6.4
Member College Commun.	5.7	6.1
Adviser	5.2	5.8

D. Dispersion of Ratings of Effectiveness of "Prof D-H"

	Q_3-Q_1 For Prof's Ratings	Q_3-Q_1 For Students' Ratings
Member College Commun.	2.3	2.5
Teacher	2.6	2.6
Adviser	3.4	3.4
Scholar	3.5	2.2

SCS Report No. 30. Summary: The Student Characteristics Study

Purpose: The study aims at describing the students in the various divisions of the college in terms of background characteristics, patterns of satisfaction with the college, plans for the future, student-faculty relations, educational philosophies, liberalism, cultural sophistication, etc. A significant portion of the distinctive environment of a college is accounted for by the distinctive character of the student body, and a significant part of the educational impact of a college is that made by the college environment. It is hoped that a more complete and accurate understanding of the characteristics of Southern Oregon College students will enable the college staff to better use and accomodate to these characteristics in advancing the goals of the institution.

Procedures of the Study: During the Spring term, 1966, every 9th name was drawn from the official enrollment list, and, if the student was carrying a minimum of 9 credit hours, the name was incorporated into the study sample (if that individual wasn't carrying 9 credit hours, the next qualifying name was selected). The students in the sample were contacted by letters from the President of the college and from the researcher, their participation was solicited, and they were asked to appear for group administrations of the research devices. Those sample members who didn't appear for the group administrations were contacted by mail, phone, and in person. (The researcher was assisted by 23 social psychology students, each of whom was responsible for a portion of the sample which appeared on 3 pages of the enrollment list). The research devices were the College Student Questionnaires of the Institutional Research Program for Higher Education, E.T.S., Princeton, N.J.

The Sample: Completed and usable questionnaires were received from 9.7% of the Spring, 1966 enrollment. When data from these respondents were processed, it was found that most of the shrinkage of the sample was among male freshmen, producing an invalid freshman sample. For that reason the report which follows is mostly from the data supplied by non-freshmen. A check of several categories showed the upperclassman sample to closely reflect (considering the small numbers involved) the total Spring enrollment:

Group	Sex		Class Level				Major Areas				
	M	F	So.	Ju.	Sr.	Gr.	Bus.	El.Ed.	S.Ed	Lib.Arts	P.-Prof.
Tot. Enrol.	58%	42%	38%	29%	29%	4%	20%	22%	19%	33%	6%
Sample	57%	42%	37%	31%	25%	4%	18%	27%	13%	37%	5%

When asked to indicate in which division they would probably be taking the greatest amount of work while at Southern Oregon College, the sample was distributed in this manner: humanities, 15%; social sciences or education, 46%; science or math, 23%; business 17%. The average cumulative g.p.a.'s for the members of the sample were: humanities, 2.64; education and social science, 2.38; science-math, 2.52; business, 2.33. The median age of the sample was 20.4 years.

Cultural Background: The socioeconomic status of the sample's parents was somewhat below that of the national average: 65% of the national sample had higher status. Fathers who were in skilled or semi-skilled occupations were about twice as frequent in the local sample as in the national sample, while parents with college degrees showed up about half as frequently in the local sample. Likewise, there were fewer fathers in fields requiring advanced professional training or paying higher incomes. Scandinavian ethnic backgrounds were somewhat over-represented and Eastern European backgrounds under-represented in the local sample--in comparison with the national sample. The S.O.C. students were more heavily Protestant than was the national sample, with Baptists and Presbyterians somewhat overrepresented locally. There were about half as

many Catholics as were found in the national sample and virtually no representatives from non-Christian religious faiths. More importantly, there were about three times as many students locally (as nationally) who did not attend church at all, with the local humanities and science-math students most frequently professing that they "have no formal religion."

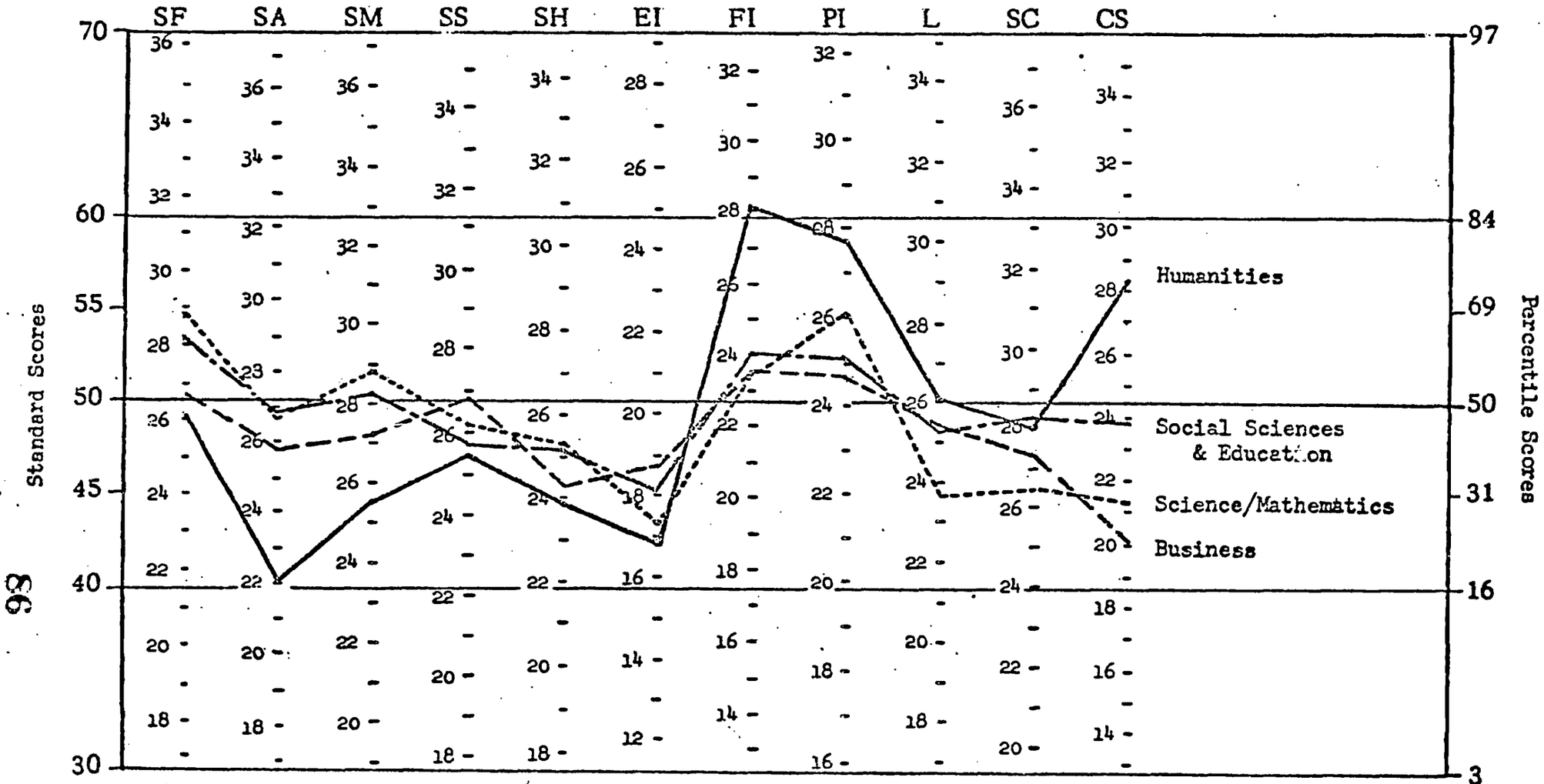
Attitudes of the Sample: The chart on the next page shows the average scores of the various S.O.C. sub-samples on 11 attitude scales. Descriptions of each of the scales appear on the sheet following the chart. The percentile scores to the right on the chart indicate the percent of the national sample which is exceeded by the various scores of the local sub-samples.

Satisfaction or Morale Attitudes: The local sample was perhaps slightly more satisfied with the college faculty (SF) than was the national sample. The local students tended to see more of their professors as being superior than did the national sample, and somewhat more of the local students were known by name by all their professors than was the case nationally. However, the S.O.C. upperclassmen expressed somewhat less than average satisfaction with the college administration (SA) than did the national sample. There appeared to be some tendency for the local students to feel that the college has too much authority over student life, and that it tended to treat students more like children than like adults. The S.O.C. sample expressed about average satisfaction with their field of academic concentration (SM). They found the intellectual level of fellow departmental students to be satisfactory, saw no great excess of ritualistic departmental requirements, felt no great dissatisfaction with their own academic standing within their major department or with the relative ranking of the department within the college. However, there was less satisfaction at S.O.C., than nationally, with the adequacy of the courses and facilities in the major field.

Academic Adjustment and Attitudes: The local sample reported less than average study efficiency. (SH): 64% of the national sample reported greater efficiency. However, the mean cumulative g.p.a. was 2.50 for the local sample, compared with 2.34 for the national group. And most academic skills appeared to be comparable between the two groups. The local students reported somewhat more note-taking on textbooks, raising a question as to whether local classes might not be more "textbook-centered". S.O.C. students possibly report slightly less boredom in classes than does the national sample. Although the local students would be disturbed by observing cheating in their classes, only 1 in 7 would speak about it to the student involved and only 1 in 9 would speak to a staff member about it. The local students were somewhat more ready than is the national group to allow the college to prescribe the curriculum. Too, S.O.C. students (with the exception of math-science majors) differed from the national sample in markedly preferring class discussion to lecturing by the professors. The S.O.C. freshman sample reported somewhat lower motivation for grades during high school years than did the national sample (about 2/3 of whom reported greater motivation). Somewhat fewer local freshmen, compared with the national sample, reported having achieved scholastic honors while in high school. And the local freshmen felt that they had acquired fewer good study habits while in high school than was the case with the national sample.

COLLEGE STUDENT QUESTIONNAIRES; PART 2

Profile of Group Means



SF	SA	SM	SS	SH	EI	FI	PI	L	SC	CS	
26.08	22.08	25.59	25.58	23.92	16.92	28.20	27.75	26.17	28.00	28.32	Humanities
28.18	26.84	28.31	25.79	25.14	18.18	24.06	25.16	25.26	28.25	23.92	Soc Sci & Educa
28.77	26.74	28.87	26.26	25.26	17.36	23.49	26.10	23.67	26.49	21.28	Science/Math
26.75	25.89	27.21	26.86	24.36	18.74	23.57	24.71	25.39	27.43	20.04	Business

BRIEF DEFINITIONS OF THE SCALES IN THE COLLEGE STUDENT QUESTIONNAIRES

(SF) Satisfaction with Faculty refers to a general attitude of esteem for instructors and the characteristic manner of student-faculty relationships at the respondent's college. Students with high scores regard their instructors as competent, fair, accessible, and interested in the problems of individual students. Low scores imply dissatisfaction with faculty and the general nature of student-faculty interaction.

(SA) Satisfaction with Administration is defined as a generally agreeable and uncritical attitude toward the college administration and administrative rules and regulations. High scores imply satisfaction with both the nature of administrative authority over student behavior and with personal interactions with various facets of the administration. Low scores imply a critical, perhaps contemptuous view of an administration that is variously held to be arbitrary, impersonal, and/or overly paternal.

(SM) Satisfaction with Major refers to a generally positive attitude on the part of the respondent about his activities in his field of academic concentration. High scores suggest not only continued personal commitment to present major field, but also satisfaction with departmental procedures, the quality of instruction received, and the level of personal achievement within one's chosen field. Low scores suggest an attitude of uncertainty and disaffection about current major field work.

(SS) Satisfaction with Students refers to an attitude of approval in relation to various characteristics of individuals comprising the total student body. High scores suggest satisfaction with the extent to which such qualities as scholastic integrity, political awareness, and particular styles and tastes are perceived to be characteristic of the student body. Low scores imply disapproval of certain characteristics that are attributed to the over-all student body.

(SH) Study Habits refers to a serious, disciplined, planful orientation toward customary academic obligations. High scores represent a perception of relatively extensive time devoted to study, use of systematic study routines and techniques, and a feeling of confidence in preparing for examinations and carrying out other assignments. Low scores suggest haphazard, perhaps minimal, attempts to carry through on instructional requirements.

(EI) Extracurricular Involvement is defined as relatively extensive participation in organized extracurricular affairs. High scores denote support of and wide involvement in student government, athletics, religious groups, preprofessional clubs, and the like. Low scores represent disinterest in organized extracurricular activities.

(FI) Family Independence refers to a generalized autonomy in relation to parents and parental family. Students with high scores tend to perceive themselves as coming from families that are not closely united, as not consulting with parents about important personal matters, as not concerned about living up to parental expectations, and the like. Low scores suggest "psychological" dependence on parents and family.

(PI) Peer Independence refers to a generalized autonomy in relation to peers. Students with high scores tend not to be concerned about how their behavior appears to other students, not to consult with acquaintances about personal matters, and the like. They might be thought of as unsociable, introverted, or inner-directed. Low scores suggest conformity to prevailing peer norms, sociability, extraversion, or other-directedness.

(L) Liberalism is defined as a political-economic-social value dimension, the nucleus of which is sympathy either for an ideology of change or for an ideology of preservation. Students with high scores (liberals) support welfare statism, organized labor, abolition of capital punishment, and the like. Low scores (conservatism) indicate opposition to welfare legislation, to tampering with the free enterprise system, to persons disagreeing with American political institutions, etc.

(SC) Social Conscience is defined as moral concern about perceived social injustice and what might be called "institutional wrongdoing" (as in government, business, unions). High scorers express concern about poverty, illegitimacy, juvenile crime, materialism, unethical business and labor union practices, graft in government, and the like. Low scores represent reported lack of concern, detachment, or apathy about these matters.

(CS) Cultural Sophistication refers to an authentic sensibility to ideas and art forms, a sensibility that has developed through knowledge and experience. Students with high scores report interest in or pleasure from such things as wide reading, modern art, poetry, classical music, discussions or philosophies of history, and so forth. Low scores indicate a lack of cultivated sensibility in the general area of the humanities.

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Marital Status: It should be pointed out that nearly one-third of the S.O.C. sample was married and that nearly one-quarter had children. Thus, though the median age of the local sample was only 0.4 year older than the median age of the national sample (20.4 yrs vs. 20.0 years), the local student was five times as likely to be married and four times as likely to have children (in comparison with the national sample). This is probably an index of the greater independence of the local students. This also seems related to the fact that S.O.C. students seemed somewhat more openminded than is the national sample regarding the possible nature of a wife's homemaking role. And local women students were about half as likely as national women students (28% vs. 51%) to choose an exclusively non-career housewife role. About half of the local sample of women preferred to combine childbearing with a career (compared with one-third of the national sample so preferring). (Local students also seemed to prefer a somewhat smaller family than did the national group: 2.5 vs. 3.2 children/family).

Role Orientations: This high prevalence of married students may account in part for the more "serious" approach to college exhibited by the local sample: fewer were oriented to the "collegiate" (campus fun) roles (39% vs. 51% nationally), "academic" (23% vs. 19%, nationally), or "non-conformist" (7% vs. 5%,nationally). The role orientations of the various S.O.C. sub-samples is shown in the chart that follows:

Group	% of Groups Identifying with Role Orientation			
	"Vocational"	"Academic"	"Collegiate"	"Nonconformist"
Humanities	20%	25%	25%	29%
Soc Sci & Educ	29	25	44	4
Math/Science	30	35	30	2
Business	40	3	51	3
SOC Upperclassmen	30	23	39	7
Natl Upperclassmen	27	19	51	5

The local humanities and science-math students were notably less "campus fun" oriented than was the national sample - with only S.O.C. business students resembling the national group in this orientation. The S.O.C. sub-samples differed in the role orientations of the students: all four orientations were fairly evenly represented among humanities students; education and social science students were somewhat more frequently "collegiates", with the rest somewhat evenly balanced between being "vocational" or "academic"; science-math students were fairly evenly distributed in all three of these orientations ("collegiate", "vocational" and "academic") and were least frequently "non-conformist"; business students were largely but two types --"collegiates" or "vocationals". Thus, in two of S.O.C.'s divisions there are higher proportions of students who don't identify with the college than is the case nationally: the "vocationalists" in the business division (who buy their education much as one buys groceries) and the "non-conformists" in the humanities division (who orient themselves more with regard to the wider society than with regard to the official campus culture. (Another factor cuts down the local students' involvement with the campus community: whereas nearly half of the national sample lived on campus, only one-sixth of the local sample did). The high percentage of married students, the larger numbers of "detached role orientations" and the larger numbers of commuters are possibly related to the greater perception by local students of "paternalism" in the college administration.

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Extracurricular involvement:
S.O.C. students reported much less involvement in extra-curricular affairs (EI) than did the national sample: 70% of the national sample reported greater participation in extracurricular affairs. The greatest factor in this seems to be the large number of S.O.C. students neither living on campus nor living in any other sort of organized student living group: 77% of the local students vs. 36% of the national group. Thus nearly half (45%) of the S.O.C. students reported no extracurricular activities, (vs. 28% of the national sample so reporting). Participation in sports or in "school spirit activities" was noticeably weaker at S.O.C. In spite of all the above considerations, the local sample did not question the value of extracurricular programs: the local sample rated the importance of extracurricular activities just as high as did the national sample.

Independence:
S.O.C. students tended to be somewhat more independent and autonomous of parental family (FI) than did the national sample (with S.O.C. humanities students exhibiting greater independence than shown by 85% of the national sample). Only a bare majority of local students felt that they should consult with parents on important decisions - compared with two-thirds of the national sample. (This in spite of there being a slightly larger percentage of S.O.C. students, in comparison with the national sample, who are in frequent contact with parents). At the same time, S.O.C. students were more independent of their peers (PI) than was the national sample--with students in the humanities and science-math being most independent. Thus more S.O.C. students (than those in the national sample) reported spending their leisure time alone, "clique activities" were about half as frequent, and considerably fewer of the local students reported that they considered how their friends would react to their actions before taking such actions. While only students in education and social sciences at S.O.C. reported as frequently as did the national sample that they consulted with peers when making important decisions, all the local students reported as much tendency to "take account of peer opinions" in working toward goals (as was reported in the national sample).

Socio-Cultural Awareness
S.O.C. students are somewhat conservative (L) regarding an ideology of change in social, economic, and political affairs: 60% of the national sample is more liberal than are S.O.C. students. The local sample was less supportive of the right of conscientious objection to military service than was the national group, although they seemed generally somewhat more supportive of the right to dissent (than was the national sample).

About 60% of the national sample reported greater development in the general area of the humanities (CS) than did the local students. This varied from 30% being more sophisticated in the field than S.O.C. humanities students to nearly 80% exceeding S.O.C. business students in such development. Thus there is at S.O.C. less interest in modern art, in reading the great authors, in enjoying classical music or poetry, less attendance at evening lectures on serious topics, less owning of books, etc., than is characteristic of students in the national sample.

S.O.C. students report themselves as almost as concerned about social justice and "institutional wrongdoing" (SC) as students elsewhere: 58% of the national sample exhibited greater concern. However, the local students seemed to view the bombing of Hiroshima with greater equanimity, than did the national sample, and seemed less disturbed regarding such social problems as poverty, "materialism", and obscene literature.

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Career Plans and Aspirations

More S.O.C. students were planning on teaching (44% vs. 25% of the national sample) and about half as many (12% vs. 20% of the national group) were planning on a professional life. Thus nearly half of the students in all the S.O.C. sub-samples, with the exception of the business students, were planning to teach. More of the local students (36% vs. 23% of the national sample) felt that their greatest job satisfaction would come from opportunities to be helpful and/or useful to society. Somewhat fewer S.O.C. students, than in the national group, were looking forward to job satisfactions from opportunities to use unique abilities, and only among humanities and science-math students, locally, were there many who expected that their greatest job satisfactions would come from opportunities to be original and creative. Only in the business division were there many students who seemed "money-oriented", and it was only there that appreciable numbers were planning to enter fairly good-sized firms or corporations. Compared with the national sample, somewhat fewer of S.O.C. students were anticipating that their lives would be centered on home and family (15% vs. 24% of the national group).

There appear to be more students at S.O.C. than in the national sample who are planning on doing graduate work. These are partly accounted for by the higher proportions who are planning on going into education, but there also are significantly more who report plans for entering a diversity of graduate programs. Humanities and science-math students are particularly likely to report plans for doing graduate work, with nearly half of those planning on working toward a doctorate, eventually.

Social and Recreational Activities

Whereas nearly half of the national sample lived on campus, only one-sixth of the S.O.C. sample did so. Thus the local students spent much more time in commuting. And the local students were commuting from a wider diversity of distances. As a probable result of being off-campus, S.O.C. students report somewhat less of their time being devoted to "bull-sessions" than is characteristic of college students nationally. The local students' attitude toward social clubs was largely indifference, with only about one-tenth "strongly approving" of them (in contrast with naarly one-third of the national sample so feeling).

The S.O.C. sample's reading habits seem quite similar to those of the national sample, with about one-third preferring fiction, drama, and poetry, over other forms. About one-sixth reported doing little or no outside reading. Also, 43% of the local sample reported that they did little or no reading that was related to courses but not required. "Time" and "Life" were the most popular magazines for both the local and national samples.

Nearly one-third of the local sample reported either no TV-viewing or less than one hour/week of viewing. The median viewing time was about two hours per week. About one-fourth of the local sample reported that they did no dating, while about one-fifth said that they dated more than twice each week. The average dating frequency was between once weekly and once every-other-week.

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APPENDIX F

Excerpts From:

"The Use and Affect of Role-Playing Situations in an Introductory Business School Marketing Course"

Thomas E. Jones
Southern Oregon College

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RESEARCH PROJECT

June 30, 1969

Submitted to:

Oregon College Research Development Project

Title:

The Use and Affect of Role-Playing Situations in an Introductory Business School Marketing Course

Submitted by:

Thomas E. Jones
Assistant Professor
Business Division
Southern Oregon College
Ashland, Oregon

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I. Introduction

The purpose of this research project is to provide the reader with new role-playing situations adaptable to a business school marketing class. The researcher does not pretend to document any new intellectual discovery concerning the validation or reliability of this teaching technique. The assets and limitations of role-playing are adequately documented in various published writings (see bibliography). Two relevant facts do become obvious to a person who scans role playing literature. First, role playing has an excess of meanings and interpretations. Second, a predominant amount of college-level role-playing situations are adaptable to a very limited list of college course offerings. The first problem, because it exists, will be put into proper perspective by the following definition -- role-playing as used in this research project will mean any simulated role in an artificial situation. The second problem referred to above provided the stimulus to develop this research project. The lack of diversification of role-playing situations in human behavioral curriculum offerings is readily apparent. Salesmanship, human relations, and personnel management are the business school subjects which seem to attract the preponderance of role-playing techniques. Marketing, with its many facets of human behavior, is deficient in available resources of role-playing situations.

This paper's objective is to fill this void by creating marketing oriented role playing situations and demonstrate that these situations add to the teaching effectiveness in an introductory marketing class. It will be presumed throughout this report that the reader is familiar with the technique of role-playing, if not, the bibliography should supply adequate sources of information.

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II. Statement of Hypotheses

The following hypotheses will be tested in this project:

1. Role-playing situations developed during this project will fill a teaching need now present in an introductory marketing course.
2. Students as a result of the new role-playing situations will become more actively involved in the classroom.

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III. Experimental Schedule and Experimental Method

The research project was accomplished in the following manner. The procedure basically consisted of three phases, which coincided with the 1967-1968 Fall, Winter, and Spring Quarters. The following is an outline of these phases:

I. Fall, 1967: This phase was the background phase for the experiments to be conducted in Spring Term.

A. Student researchers and project researcher read and discussed role playing materials which were collected from library sources (see bibliography).

B. The student researchers attended a marketing class offered fall term (the same class as the Spring experimental class) and noted areas which were conducive to role playing situations. They wrote critiques which were discussed with the project researcher daily--this, coupled with role playing theory, provided the researchers with ideas for setting up the class role playing situations.

II. Winter, 1968: This phase consisted of devising several role playing situations which were to be performed in the spring.

A. First: A trip was made to contact training directors and marketing managers in private business so that the researchers could discuss the reality of their ideas, solicit criticisms and comments, and discover new existing techniques.

B. Second: From this trip and from the background work completed during the Fall, the researchers designed the role-playing situations (see chapter IV Role-Playing Situations).

C. Third: The situations were administered to the student researchers and also to a cross-section of business students. Based on these preliminary tests, the situations were revised and redesigned where needed.

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D. Fourth: The researchers used a two-way evaluation system: (i.e., evaluation of student behavior by researcher and evaluation of the teaching technique by students). Due to the complexity of this task, the researcher consulted measurement experts at Southern Oregon College for assistance in deriving valid tests.

III. Spring: This phase consisted of the implementation and evaluation of the experiment.

A. Two marketing classes were offered Spring Term, 1968; one was the control and the other the experimental class. In order to assure accurateness, academic backgrounds of the students were checked so that possible bias could be controlled.

B. Both the experimental and control class were given the same experiences except for the use of four role playing situations. Student knowledge of the experimental project was kept as minimal as possible.

C. The student researchers and the project researcher attempted to appraise the class as it developed (see Chapter V Measurements), also student questionnaires were distributed and tabulated at the end of the term (see Chapter V Measurements).

D. A final report correlating the objectives, methods, results, and observations was written.

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V. Measurements

The hypotheses of this research project were the creation of new role-playing situations and the degree of student involvement caused by these role-playing situations. The four role-playing situations (see chapter IV Role-Playing Situations) fulfill the first hypothesis. Two divergent measurement analyses attempt to fulfill the second hypothesis. Claude J. White, Ed.D., performed a Flanders Interaction Analysis, which is summarized by Dr. White in "Measurement Analysis A" of this chapter. "Measurement Analysis B" contains the results of questionnaires given to the participating students in the experimental and control groups.

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Measurement Analysis A

Flanders Interaction Analysis

by

Claude J. White, Ed.D.

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Since the Flanders Interaction Analysis Technique was used to gather the data for this study, it is necessary that a short description of the Technique be given prior to the interpretation.

Based on the theory that verbal responses are indicative of all teacher-pupil interaction, Flanders Interaction Analysis Technique, FIAT, is concerned with the verbal classroom behavior only. Flanders has classified all oral classroom behavior into ten categories with each category being assigned a number from one through ten. Note Chart I. The first four categories have been labeled "Indirect Teacher Talk," the next three are labeled "Direct Teacher Talk," categories eight and nine have been assigned to types of student talk and number ten has been reserved for silence or confusion. An observer using FIAT writes down the number which symbolizes the type of teacher-pupil interaction which is in progress at the termination of each 3-second period or when there is a change in the category. The numbers are first recorded on a tally sheet (Chart II) and then transferred to an observation matrix for study and interpretation. (Note Chart III). The reader will note that the observation matrix is a 10 x 10 matrix with the ten categories entered on each axis. The numbers from the tally sheet are first grouped into overlapping pairs. For example, assume that the numbers from the tally sheet were 4,8,8,3. The overlapping pairs would be 4,8; 8,8; 8,3. To transfer these pairs to the observation matrix one would let the first number of each pair designate the horizontal axis (row) and the second number designate the vertical axis (column). Consequently,

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the 4,8 pair of numbers would be recorded on the observation matrix by placing a tally in the square where row 4 and column 8 cross. Since the square which a row and a column hold in common is called a cell and derives its name from the position it holds, one could state that the 4,8 pair of numbers was recorded in the 4,8 cell, the 8,8 pair of numbers in the 8,8 cell and the 8,3 pair of numbers in the 8,3 cell.

The data is then interpreted by analyzing the occupied cells. For example, by viewing observation matrix number one, one could state that a question was followed by teacher lecture eight times--there are eight entries in the 4,8 cell. Likewise, one could state by another question--there are five entries in the 8,4 cell. One might further state that the teacher in observation matrix number one asked 56 (101-45) questions since there are 101 3-second periods of questioning, 45 (4,4 cell) of which were used to extend questions being asked. Accordingly, it can be stated that the teacher lectured 93 minus 68 or 25 different times which encompassed 23.25% of his class time. A more detailed description of FIAT can be obtained by consulting educational journals which include articles by Ned Flanders or Ted Amidon.

The data was interpreted with the following assumption in mind. Teaching is a purposeful act--as a teacher conducts his class his actions are determined by his felt need. What he does then is determined by what he perceives is necessary to be done and his students respond accordingly.

The data shows that Mr. Jones talked 66.0% of the class time during his control class, 65.9 and 76.1% of the time in his two

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experimental classes. Further inspection reveals that the way he used his teacher talk was quite different. During the control class he was considerably more indirect than he was in his experimental classes. An examination of the $\frac{I}{D}$ ratios (indirect teacher talk to direct teacher talk) shows that Mr. Jones was nearly three times as indirect in his control class as he was in one of the experimental classes. There are several things which might have been responsible for this. One could have been that Mr. Jones and his students were more familiar with his method of delivery and consequently knew better what to expect. Therefore, Mr. Jones was required to give less direction via the five or the six categories and his $\frac{I}{D}$ ratio would so indicate. Only if several observations were made where the students could feel equally comfortable in each of the experimental and control situations, could such a variable be ruled out. Judging the data as such, one could state that Mr. Jones used categories one through four considerably more when teaching the control group than he did when teaching either of the two experimental groups.

An examination of the pupil talk reveals a fact which is probably more indicative of what Mr. Jones was attempting to accomplish during his teaching. Notice that in the control group, the ratio between the eight and the nine student responses is roughly 7 to 19, while in the two experimental groups the ratios are 2 to 28 and 3 to 15. These bits of data would indicate that the two experimental groups were permitted to express student-initiated answers far more often than were the control group. Evidently, there was something in the design of the class procedure which

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encouraged students to create ideas of their own. It is interesting to note that though Mr. Jones supported and encouraged his students in a greater degree when working with the control group, his students in the control group were not nearly as free to create ideas of their own. This same fact is revealed by studying the teaching patterns of the three matrixes. In the control group the most common pattern is 5,4,8,2. (Lecture, question, teacher-initiated student responses followed by a teacher compliment). In each of the two experimental groups, Mr. Jones followed the same pattern but he received nine pupil-initiated student responses (9's) from his students. There are other points which can be deduced from the data, but most of them are directly related to the point just made.

Basically, Mr. Jones is very aware of his students. He compliments and builds on student ideas much more often than does the average teacher. His students respond by conversing freely without first being asked a question. Consequently, there follows a relaxed give and take of ideas with a minimum of time given to teacher control. Note on the Composite Matrix that Mr. Jones responded to student talk 13 times in a direct manner, but 111 times in an indirect manner. These data indicate that he consistently employs categories which are designed to promote further pupil participation.

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Chart I

CATEGORIES FOR INTERACTION ANALYSIS

Minnesota, 1959

TEACHER TALK	INDIRECT INFLUENCE	1.* ACCEPTS FEELING: accepts and clarifies the feeling tone of the students in a nonthreatening manner. Feelings may be positive or negative. Predicting or recalling feelings are included. 2.* PRAISES OR ENCOURAGES: praises or encourages student action or behavior. Jokes that release tension, not at the expense of another individual, nodding head or saying "um hm?" or "go on" are included. 3.* ACCEPTS OR USES IDEAS OF STUDENT: clarifying, building, or developing ideas suggested by a student. As teacher brings more of his own ideas into play, shift to category five. 4.* ASK QUESTIONS: asking a question about content or procedure with the intent that a student answer.
	DIRECT INFLUENCE	5.* LECTURING: giving facts or opinions about content or procedure: expressing his own ideas, asking rhetorical questions. 6.* GIVING DIRECTIONS: directions, commands, or orders to which a student is expected to comply. 7.* CRITICIZING OR JUSTIFYING AUTHORITY: statements intended to change student behavior from nonacceptable to acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing; extreme self-reference.
STUDENT TALK		8.* STUDENT TALK--RESPONSE: talk by students in response to teacher. Teacher initiates the contact or solicits student statement. 9.* STUDENT TALK--INITIATION: talk by students which they initiate. If "calling on" student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he did, use this category.
		10.* SILENCE OR CONFUSION: pauses, short periods of silence and periods of confusion in which communication cannot be understood by the observer.

*There is NO scale implied by these numbers. Each number is classificatory, it designates a particular kind of communication event. To write these numbers down during observation is to enumerate, not to judge a position on a scale.

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Chart II

Observation Matrix

CLASS CODE NO. _____ OBSERVER _____ DATE _____

CATE-GORY	1	2	3	4	5	6	7	8	9	10	TOTAL Tallies
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
TOTAL TALLIES											
% of Total	Teacher Total:								Student Total	Si-lence	

I/D =

i/d =

Steady State =

Content Cross =

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V. 5.

Measurement Analysis B

Experimental and Control Group Questionnaires

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Questionnaire Method and Discussion

It was decided that two different but similar questionnaires would best accomplish our objective. The questionnaire given solely to the experimental group was administered the last scheduled class period of the academic quarter. This placed it two periods after the last scheduled role-playing situation. The second questionnaire was administered to both the experimental and control groups immediately before the final examination. Anonymity and objectivity were stressed in the questionnaire. The results of the questionnaire suggest a favorable emphasis toward role-playing, but the indication is not strong enough to pass judgement. Before a conclusive statement can be drawn, more data with a statistical framework would be required.

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QUESTIONNAIRE FOR EXPERIMENTAL CLASS

1. What method of instruction did you find most useful in learning?

	Student Responses
a) lectures	8
b) question-discussion	5
c) role playing	5
d) cases	4

Explain

2. What method of instruction did you find most useful in personal and group participation?

a) lecture	2
b) question-discussion	5
c) role playing situations	10
d) cases	5

Explain

3. Should there be more role playing situations or less? Explain.

More	14
Same	4
Less	4

4. How did you identify with the different roles? Explain.

(Majority opinion): PRO: 1. In-basket best, really got me involved, also representative from Proctor & Gamble added to its effectiveness. 2. Book sales, felt like a "spectator."
CON: 1. I didn't like the roles, thus didn't identify.
2. Not very well, the pressure situation reduced identification effectiveness.

5. How can the situations be improved for later usage?

1. More rehearsed situations.
2. Leave more time for discussion afterwards.
3. Have situations more complicated.
4. Need more role playing situations like the "In-Basket" Associated personally with the role better here.
5. Have situations less complicated.
6. Take situations home to analyze, give student more time.
7. Better initial organization will help get students into the role sooner.
8. Need more time for the student to identify with role.
9. Arrange situations so they flow from least to most complicated.

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QUESTIONNAIRE GIVEN TO EXPERIMENTAL AND CONTROL GROUPS

1. How did group participation in BA 330 compare to other upper division courses?

Control Group		Experimental Group
18	Above average	18
14	average	8
0	below average	0

2. Did you become involved with the material in BA 330 as compared with your other upper division courses?

26	Yes	20
4	No	4
1	Undecided	2

3. Did you feel the course material in BA 330 could be realistically applied in later life as compared to other upper division courses?

28	Yes	20
1	No	2
2	Undecided	4

4. How did the learning of broad concepts and ideas in BA 330 compare to other upper division courses?

12	Above average	16
19	Average	8
0	Below average	1

5. Which of the following teaching techniques and aids would you like to see more of in the course?

4	Lecture	8
12	Question-discussion	10
4	Role playing	8
4	Cases	4
8	Movies	1
22	Outside speakers	9
3	Marketing Insights	3

6. Which of the following techniques and aids would you like to see less of in the course?

2	Lecture	2
0	Question-discussion	1
3	Role playing	6
16	Cases	8
1	Movies	3
0	Outside speakers	0
6	Marketing Insights	10
1 (write-in)	Tests	1

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QUESTIONNAIRE GIVEN TO EXPERIMENTAL AND CONTROL GROUPS
(Continued).

7. Comparing responses (by class) in Questions 5 and 6. - sign denotes a larger number of responses to Question 6. + sign denotes a larger number of responses to Question 5.

Control Group		Experimental Group
+2	Lecture	+6
+12	Question-discussion	+9
+1	Role playing	+2
-12	Cases	-4
+7	Movies	-2
+22	Outside speakers	+9
-3	Marketing Insights	-7
-1	Tests	-1

8. Please comment pro or con on any subject connected with the course, course materials, or teacher which might be used to improve future classes.

CONTROL GROUP:

Pro: 1. You try to make an interesting class.
2. Keep requiring Marketing Insights; its a good magazine.
3. Covered a lot of information; very good delivery.

Con: 1. Marketing book was too wordy.
2. Cases too long for benefit received.
3. Should have three people per case, not two.
4. General ideas rather than minute exceptions should be presented.
5. Too much reading.
6. Don't give people giving presentations such a hard time.

EXPERIMENTAL GROUP:

Pro: 1. Liked role playing and discussions best.
2. Most interesting course in business thus far.
3. Very practical course.
4. This course and instructor have inspired me to major in Marketing.

Con: 1. Too much reading.
2. Cases took up too much class time.
3. Cover less material and go into detail more.

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VI. DISCUSSION

The purpose of the research project was to determine whether role-playing should and could be used more extensively in undergraduate business classes. From conversations with corporation training personnel, psychologists, business administration teachers, and the experiences gained from this project, this researcher can only arrive at an affirmative answer to the above speculation. Greater student involvement and student problem-solving which are effects of role-playing warrant more academic attention. The textbook-lecture approach or the question-answer approach, although needed, must not be the only methods on which to rely. Class periods must include dynamic experiences emphasizing student participation and guided by a knowledgeable instructor (i.e. knowledgeable in the subject matter and the techniques of learning).

What role-playing means to schools of business is a possible rethinking of teaching techniques. This re-thinking must provide the student with experiences from the everyday business world. Creation of new teaching aids similar to those in this project will facilitate this objective. Statistics, Accounting, Production, Finance as well as Marketing are subject areas with behavioral consideration which could be adoptable to role-playing situations.

One can readily see that the problem solving techniques in the actual business world deviate from the pure text-

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book approach. If the schools of business are doing a complete job, the students should be exposed to the pressures and frustration he will encounter in his work environment. Role-playing is one teaching technique whereby this realism can be provided.

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APPENDIX G

Excerpts From:

"A Comparative Study of Audio-Tutorial and
Conventional Laboratory Approaches
in College Biology"

Donald W. Mitchell
Southern Oregon College

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ABSTRACT

Mitchell, Donald W. "A Comparative Study of Audio-Tutorial and Conventional Laboratory Approaches in College Biology." Unpublished Doctor of Education dissertation, University of Northern Colorado, 1971.

This investigation has compared the effectiveness of an audio-tutorial approach in the laboratory with a conventional laboratory approach in general biology for non-majors at the college level. Two hundred and four first term college freshmen at Southern Oregon College, Ashland, Oregon, were the subjects for the study. One hundred and eight students enrolled in General Biology 101 and 102 for the Fall and Winter Quarters, 1969, 1970 comprised the experimental group for the study. Ninety-six students enrolled in other laboratory sections were involved as control groups.

Lectures for all students were the same for both groups. The same instructor presented his lectures to all students. Laboratory sessions for both groups were designed to utilize the same biological materials and were organized around the standard course laboratory

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manual written by the author. Experimental group laboratory sessions were concerned with the same biology topics, but the innovations of flexible self scheduling and audio-tutorial study carrels were utilized.

Pre-test and post-test scores of critical thinking and achievement of biological knowledge were gathered for approximately one half of each of the comparative groups in an effort to determine if significant interaction between pre-testing and the treatments occurred. All students were post-tested at the end of the eighteen-week comparative study. The criterion instruments utilized in the study included the Watson-Glaser Critical Thinking Appraisal, the Nelson Biology Test and an Achievement Test in Biology, constructed by the author based on the specific course objectives. Analysis of variance was used to determine whether significant differences in achievement occurred (1) between subjects pre-tested and post-tested and those post-tested only within each treatment and (2) between subjects in the comparative treatments. Questionnaires were administered to determine student opinion as to the relative merits of the systems being compared.

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Findings

No significant difference in achievement at the .05 level was found between students pre-tested and post-tested and students post-tested only within any of the individual treatments as measured by the Watson-Glaser Critical Thinking Appraisal, the Nelson Biology Test and the Southern Oregon College Biology Achievement Test. Pre-testing did not have a significant effect on the achievement of students within any of the treatments.

No major differences between the comparative groups were found in either time spent in the laboratory or achievement on practical laboratory examinations.

No significant difference was found between the audio-tutorial and conventional laboratory approaches as determined by the criteria of achievement of biologic knowledge and critical thinking under the conditions of this study.

No significant differences were found in the mean time expended in the laboratory by members of the two comparative treatments. Students in both systems required almost identical periods of time to complete the laboratory experiences.

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No significant differences were found in the mean scores as measured by practical laboratory examinations between the students instructed under the comparative treatments.

Students enrolled in the audio-tutorial laboratory subjectively favored that system as long as it was operating under the conditions of the study. Following audio-tutorial instruction for two terms these same students, when enrolled in conventional laboratories during the spring term, subjectively judged the conventional system to be the type they would recommend for future biology students.

Implications

Although there was no significant difference in achievement between subjects in the treatments being compared as measured by the criterion instruments there was a uniform decrease in the mean scores of students pre-tested and post-tested on the Watson-Glaser Critical Thinking Test. This finding was consistant with the finding of this author in previous research conducted under similar conditions at the same college. It would appear that although achievement in critical thinking could not be

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attributed to one course in the varied programs of the students unless the course were designed specifically for teaching toward critical thinking, a net gain in achievement should occur among freshmen who are enrolled in basically liberal arts programs during their first year of college.

The observations of this author after two years of research in this area indicate:

1. Students can adapt to either the conventional or audio-tutorial method of instruction with a minimum of difficulty or frustration.
2. Students in an audio-tutorial class tend to co-operate with fewer number of classmates in completing an investigation.
3. Revision of instructional materials is imperative to either system.
4. Resistance to initiation of an audio-tutorial program can be lessened by involvement of all faculty who will be concerned with instruction during the early stages of planning.
5. No reduction in cost of instruction is immediately apparent. The production and

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revision of the instructional materials is costly.

6. Through consultation with professional educators involved in audio-tutorial instruction an individual can avoid much frustration in the production of audio-tutorial materials.

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APPENDIX H

Excerpts From:

"An Evaluation of OCE s 'Pass-Fail' Option"

Ajmer Singh
Oregon College of Education

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January 6, 1970

To: OCE Faculty Senate

From. Ajmer Singh

Sub: An Evaluation of OCE'S "Pass-Fail" Option.

Pursuant to the 4 April 1968 letter from Dean Kersh asking me to conduct the "pass-fail" study, enclosed please find a copy of the preliminary report. In this report I have attempted to identify the problem and have suggested the structure of further research needed for properly determining the effectiveness of the "pass-fail" option.

The frequency data of student participation in the option, shown in Table 1, is not sufficient evidence to permit suggesting any policy alternatives. All that can be said is that the option has not been enthusiastically used by the OCE students.

Should the option be continued, it is suggested that items 1 and 2 of the option be reworded to remove ambiguity relative to the 'field', "program", and 'electives."

It goes without saying that the guidance and encouragement received from Dean Kersh are gratefully acknowledged and appreciated. Also, I wish to thank Registrar Stan Kenyon for his cooperative efforts in providing the data.

cc: Dean Kersh

Dr. Bud Paulson - Teaching Research

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OBJECTIVES

1. To survey the status of 2-L systems at other selected U.S. Colleges and Universities and compare them with the O.C.E. option.
2. To determine the extent to which the 2-L option was availed of by the O.C.E. students.
3. To find the relative performance in course work as a function of the two (5-L and 2-L) grading systems.

RESULTS

Ninety selected U.S. Colleges and Universities were surveyed during the spring of 1968 to determine the structure of their 2-L systems , of which sixty-eight (77.27%) responded. A summary of 2-L systems at the various institutions as evaluated from the individual responses is presented in Appendix B. Forty-eight of the respondents have had some form of 2-L system during 1968-69, and eleven reported that they were considering the adoption of a 2-L system for the future. Thirteen out of 48 respondents with 2-L systems reported that the option was under planned experimentation. The frequent reasons mentioned for adopting the system were 1) to permit broadening of educational experiences; 2) to relieve grade pressures, and 3) to promote learning.

In general, the 2-L varies from one institution to another with respect to the type and number of courses approved for the system, the type of departments and programs under which the 2-L courses were offered, and how the 2-L grades are recorded in the GPA.

However, in most instances the 2-L courses, mostly available to Juniors and Seniors, were restricted to electives and for minors. The rationale of limiting the option to upperclassmen was that they are more mature to effectively avail the opportunity of broadening their educational experiences.

In most instances the 2-L grades are not computed in the GPA. In eight cases the "fail" was computed in GPA but the "pass" was not.

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The system was used in a variety of schools within the institutions, but the schools of physical educations, music, education, and honors programs were indicated as the frequent users of the system.

The O.C.E.'s option does not seem to be a unique one as compared to the systems at other institutions, except the items 2 and 5 of Appendix A.

The 1968-69 data below indicate that an insignificant percent of the O.C.E. students used the 2-L option available to them.

	FALL	WINTER	SPRING
(a) Total enrollment	3,257	3,209	3,196
(b) 2-L absolute frequency	32	42	164
(c) (b) as a percent of (a)	.98	1.31	5.13

The relatively higher percent (5.13) in 2-L frequency during the spring was caused by a special course--Black Literature-- offered by the humanities department on pass-fail basis.

Another interesting observation about the O.C.E. students who took 2-L option was that none of them failed any of the 2-L courses.

Table 1 shows the "pass-fail" O.C.E. Student frequencies by department, program, and class. It would be interesting to test the hypothesis that pass-fail frequency is inversely related to the grading index, assuming appropriate data become available in the future. The courses and/or departments with easier grading policies tend to attract fewer pass-fail students.

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TABLE 1. O.C.E. PASS-FAIL (2-L) STUDENTS BY DEPARTMENT, CLASS, AND PROGRAM DURING THE THREE TERMS OF 1968-69.

CATEGORY	FALL frequencies absolute	FALL relative	WINTER frequencies absolute	WINTER relative	SPRING frequencies absolute	SPRING relative
A. DEPARTMENT						
ART	6	18.75	8	19.05	12	7.32
ED-PSYCH	3	9.38	0	0.00	3	1.83
PE	4	12.50	4	9.52	12	7.32
HUM	8	25.00	4	9.52	102	62.19
MUSIC	1	3.12	1	2.39	2	1.22
SCI-MATH	1	3.12	4	9.52	11	6.71
SOC.SCI.	9	28.13	21	50.00	22	13.41
TOTAL	32	100.00	42	100.00	164	100.00
B. PROGRAM						
ELEM	12	37.50	11	26.19	47	28.66
JR. HI	2	6.25	3	7.14	3	1.83
SR.HI	15	46.88	19	45.24	83	50.61
GEN. ST	1	3.12	5	11.91	21	12.80
PRE.PROF	2	6.25	4	9.52	10	6.10
TOTAL	32	100.00	42	100.00	164	100.00
C. CLASS						
FROSH	0	0.00	9	21.43	45	27.44
SOPH	9	28.13	7	16.67	39	23.78
JR.	11	34.37	16	38.09	33	20.12
SR.	12	37.50	10	23.81	47	28,66
TOTAL	32	100.00	42	100.00	164	100.00

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The above results alone are not sufficient to yield any conclusion concerning the relative effectiveness of the 2-L system at O.C.E. It is only after the objective # 3 (stated earlier) is analyzed and satisfied that a valid conclusion can be drawn. This involves an analytical study having access to and the availability of data items listed under Appendix C, and also computer facilities. Needless to state, the total operation demands additional time and resources to be successfully completed.

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APPENDIX A

OREGON COLLEGE OF EDUCATION

Monmouth, Oregon

PASS - FAIL GRADING AT OCE[1]

1. Electives

A student is allowed to take elective courses in his current program on a pass-fail basis if he so desires. Electives are understood to be any course outside of the General Education Requirements and a student's declared major or minor requirements.

2. Major and Minor Fields

Courses taken in a currently declared major or minor field or graduate degree program must be taken for a letter grade. Should a student change his major or minor into an area where he holds "pass" credit hours, no more than 25% of those required hours in the newly declared major or minor will be allowable as "pass" credits. The department chairman shall determine which credits are transferable if more than 25% have been taken pass-fail.

3. Meaning of "Pass"

To retain a unified grading system throughout the entire college, a grade of either Pass or Fail shall be given by the individual instructor with the stipulation that Pass is equivalent to a grade of D or better under the current letter grade system.

4. Period of Declaration

Students shall register for and commence classes in the normal fashion. During the registration period of the term (the time allowed for adding courses), students electing to take a course on a pass-fail basis shall declare this intent with the instructor. After this deadline, the student must continue and complete the course under the grading system which he has chosen. The student's declaration of intent shall be formal as prescribed by the Registrar.

5. Departmental Desognations

Any department may declare a specific course which it offers to be available only on a pass-fail rather than a letter grade basis to all students taking it. These courses will be in addition to the amount of pass-fail credits allowed in section 2 above, pertaining to major, minor, and General Education courses.

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[1] Adopted as institutional policy on a provisional basis for one year beginning Summer Session, 1968. Unless otherwise specified by the President, this policy will not be extended beyond the 1968-69 acedemic year.

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APPENDIX C

PASS FAIL EVALUATION PROGRAM AT OCE

DATA NEEDS

1. Total student enrollment for the individual six academic years (1963-69) by term including summer session.

2. Total undergraduate student credit hours offered during each of the six years by term, class, program, and department.

3. Total graduate student credit hours offered during each of the six years by term and department.

4. Total undergraduate student elective credit hours taken during each of the six years by term, class, program, and department.

5. Total undergraduate student Pass-Fail credit hours taken during each of the six years by term, class, program, and department.

6. Total undergraduate credit hours scheduled exclusively on Pass-Fail basis during each of the six years by term, and department.

7. Total number of 'F' undergraduate student credit hours for students enrolled under Pass-Fail grading system during each of the six years by term, class, program, and department.

8. Total number of "fail" undergraduate student credit hours for students enrolled under Pass-Fail grading system during each of the six years by term, class, program, and department.

9. A list of mean GPA's for undergraduate students who have taken a P-F course at every opportunity by term, class, program, and department, and the number of student credit hours taken on the P-F basis.

10. A list of mean GPA's for "other" (not taking Pass-Fail course) by term, class program, and department.

11. Solicit from the faculty the numerical grades of Pass-Fail students by term.

12. A list of the undergraduate students who have taken one or more Pass-Fail courses during 1968-69. This list is needed during early spring, 1969.

NOTES

a. The six-year time series data are needed to discover the trend, which needs to be eliminated in order to discover the net effect.

b. Academic performance data would be used as an inferential information.

c. Student opinions would be treated as a direct affect. The opinion questionaire would be structured and administered in such a manner that would encourage honest and objective response.

d. Ideally, to avoid any grade-basis on part of the instructors, they should not be informed which class members were taking the course on the Pass-Fail basis. They should grade the P-F student as if they were taking the course for a numerical grade. This requirement of the experiment places the responsibility on the Registrar's office to convert the numerical grade for the students who had elected to take the course on a Pass-Fail basis.

APPENDIX I

Excerpts From:

"The Use of Media in the Teaching of Poetry"

Martin J. Birnbaum
Oregon College of Education

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THE USE OF MEDIA IN THE TEACHING OF POETRY

Final Report

CORD Project in the Teaching of Poetry

1967-1969

Submitted by:

Martin J. Birnbaum

Oregon College of Education

August 31, 1969

TABLE OF CONTENTS

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*Appendices:

Appendix A: Statistical tabulation of data derived from quizzes.

Appendix B: Illustrations showing students using listening room.

Appendix C: Correspondence indicating attempts at disseminating the results of the CORD project, and the response received.

Appendix D: Copy of one slide-tape automated program dealing with contemporary poetry, including tape-script.

*Most copies of this final report will not be provided with all the appendices. A copy of the slide-tape package will be forwarded to the Regional Office of th Office of Education, located in San Francisco, California, and one copy will be retained by the investigator. Because we expect limited interest to be shown in Appendix C, it too will have limited distribution.

FINAL REPORT

CORD Project in the Teaching of Poetry

Purpose

The overall purpose of this project was to test the applicability of certain specific instructional media aids in the teaching of college level, introductory courses in poetry. The fundamental assumption was that literature, and poetry in particular, is a total experience; that is, it affects the senses as well as the intellect, that the initial experience is, in fact, sensual. In conjunction with this general research program, it was a secondary purpose of the project to develop the particular instructional aids necessary to test the theses adequately. Thus, during the academic year 1967-68, a program of research and development was undertaken as will be detailed below, with measures for control and evaluation as were deemed necessary. In addition, substantial emphasis was placed on the dissemination of the results to interested English teachers on all levels--as will also be recounted further.

Historical Rationale

English teachers have always known, I think, that the understanding and appreciation of poetry are enhanced when students have the opportunity of hearing poetry read aloud. The optimum benefit is derived by hearing the poet read the works himself; second best is an expert professional

reader. As English teachers, we have always taught that the aural experience is essential to most poetry, and we have always stressed those poetic devices whose effect strike the ear: rhyme, rhythm, alliteration, assonance, euphony, and perhaps the most delightful of them all--onomotopoeia. To support our assertion that the sounds of poetry are important, and I suspect to satisfy some of our own needs as well, we have spent a good bit of class time reading to our students; many of us--a little more enterprising--have played records in class of poets reading their own work or of professional actors reading the work of standard poets.

To some extent we have done service to the visual aspects of poetry--especially those aspects usually considered 'poetic devices': images, symbols, mood in some cases, and other descriptive qualities. But we have largely failed to study the poem itself as a visual experience, though this characteristic has been of some importance at least as early as the Greek poet Anacreon.

About two years ago a student of mine shook my complacency by accusing those English teachers who read or play records in class of being lazy, of not bothering to prepare lectures. And since there was some justification for this accusation, I was determined to test the validity of the dual hypothesis that listening to poetry actually aided learning, and that an experience with literature that involved as many senses as were appropriate would result in greater understanding and greater enjoyment.

General Procedure

Supported by a small CORD grant, I purchased three tape cartridge playback machines and had them built into a unit which included earphones and a writing table (see appendix B). With the help of the Oregon College of Education Library administration, who provided me with a pleasantly

comfortable and decorated listening room, a program was organized which permitted students in an experimental section of the poetry class to check out pre-recorded tapes for use in the listening room (much as they would ordinarily check out books on reserve). The tapes varied in length from fifteen to twenty-five minutes and turned themselves off automatically; the operation of the machinery was thus reduced to the simplest procedure. Each tape included some comments explaining the pertinent characteristics of the poetry that followed, as well as biographical and historical information deemed significant. Occasionally, homework assignments or unusual instructions were recorded on tape when the instructions were considered essential for an understanding of the poetry at hand. With the gracious indulgence of Caedmon Record Company, segments of recorded poetry were then joined to the script--segments of poetry read by the authors themselves or by such outstanding professionals as Julie Harris, Richard Burton, and James Mason. The experimental group was significantly better, statistically; this result was most satisfying, especially in light of the reduced class time. As a whole, the experiment seemed to indicate that students exposed to poetry read aloud learned to understand poetry at least as well, and probably better, than students who had not the same opportunity--and those who had heard the poetry read aloud had spent 1/3 less time in the classroom.

There were various implications; but those that were immediately obvious were--paradoxically--later proven impractical. The immediate reaction was that a teacher assigned to two sections meeting a total of six hours each week might now be assigned to three sections and still teach only the same six hours--a tempting conclusion from an administrative point of view. As it turned out, we regretted the reduction in class meetings.

The most significant result of the change in presentation was that the role of the instructor and the purpose of the classroom were rapidly altered. As a producer of tapes, I needed to organize the listening sessions--to introduce and close each session, to introduce the poems and the readers, and to explain to the listener why these particular poems were chosen. I also had to prepare helpful critical comments that would be meaningful to students who were only listening, and I had to condense these meaningful comments so as not to bore the listener or impinge more than necessary on the limited length of each tape. The net result was that I continued to place greater emphasis on the method of presentation and the presentation itself, though I feel that in no case did the quality of the material presented suffer as a result. Even so, the literary criticism offered on each tape proved insufficient.

I found that the students asked for a workbook of some kind, a list of guiding questions whose answers would help them understand the material. The introductions, the explanations, the questions: these had all been functions of the classroom; but now I found that classroom dicussions had become more lively, that the students came to class with questions for me to answer. That nebulous goal--"appreciation"--had vanished; the inspired readings of Julie Harris, the masculine voice of Richard Burton and of James Mason provided all the appreciation the listeners could absorb. What they now needed, and demanded, was understanding. Thus "understanding" replaced "appreciation" as the goal in the classroom. And only when this became the goal did I discover that previous to this experiment I had no clear idea of what I expected from the students, or what I expected from myself.

The new direction taken by the course came as a response to the questions raised by the students, though they did not necessarily approve of the way their questions were answered. When they asked what the poet's purpose or intent was, we proceeded to define words, to speak about diction, to paraphrase, to examine connotations and the tone of the speaker, as well as his identity or his pose. When students asked about the power of poetry--the lilt, the humor, romance, philosophy, sentiment--the response was technical discussions of figurative language, imagery, meter, rhythm, rhyme, form, and so on. We developed on the undergraduate level a literary vocabulary, and we discovered that the vocabulary was not an end in itself but a means of understanding poetry and discussing it as well. And the topics that we avoided in class were discussed--according to the testimony of reliable students--in the coffee shop, in dorm rooms, in the listening rooms, and other unusual places; i.e., the personal relationship between the student as an individual and the poetry as an emotional experience we did not violate or exploit in class.

Not everything we tried was successful. We used overhead transparencies with success in teaching figures of speech and forms of poetry; but devices of sound (rhyme, rhythm, meter, etc.) we were unable to teach successfully merely with the use of visuals. [It may be that motivation of the students was insufficient, and that the direction to take in that area is to have students write poetry themselves--following certain minimum requirements. It may also be that the use of computer generated poetry, and instructional assignments related to the use of computer generated poetry, will aid in teaching these difficult subjects. As an outgrowth of this project, I have been working on just such computer problems.] We also found that the workbook we developed in response to student requests was too complicated

and vague; the workbook was therefore abandoned temporarily after an unsuccessful revision. The tests were inadequate at the beginning of the experiment and were not totally satisfactory even at the end. But the weaknesses of the program seemed to be alleviated by improving the teaching techniques, and the system as a whole was reasonably successful. The testing program was completely revised before the beginning of academic year 1968-69, and proved a reliable means of evaluating the project.

Briefly, the project tried to recognize and isolate some of the inadequacies in the conventional means of teaching poetry in freshman college courses; it also attempted to determine specific means of correcting these weaknesses. Two problems occurred: unforeseen contingencies modified the program in mid-course, and my own inexperience in research techniques resulted in controls that were less than adequate. It was therefore difficult to evaluate the program accurately. Moreover, a number of the insufficiencies of the pilot program may be attributed to these two difficulties.

The problem of creating practical, meaningful, and accurate testing instruments, however, was a positive achievement of the project. Before the project started I had not even been aware that such a problem did indeed exist, nor did any of my colleagues ever intimate that they considered the testing problem significant. If a negative result may be listed as an achievement, this one surely rates that reward. As a result of this experience I have become far more sensitive to this particular area in education, and I have been bending some of my own efforts to help improve the situation.

In the first year of the award, the proposed pilot research program was accepted for funding by a CORD grant in the amount of $1,335. This was followed in the second year, academic year 1968-69, by an additional subsidy of $1,550. Whereas the main emphasis during the first year of the project

was on research and evaluation, the emphasis shifted in the second year to development of the techniques devised during the research period.

Following are the conditions, objectives, rationale, and results of the experiment.

Conditions

During the spring quarter of the 1967-1968 academic year, I conducted two undergraduate sections of English 109 (Introduction to World Literature--Poetry). Each section contained approximately 40 students selected at random. The control section attended three lecture sessions each week, whereas the experimental section was required to attend one additional unscheduled 15-30 minute listening session in a room appointed for that purpose in the library. The listening room was comfortably furnished and decorated with paintings lent by the Art Department. There were three listening stations in the room with two sets of earphones attached to each station. Here the student listened to pre-recorded readings of poetry along with comments made by the instructor. The experience the student had in the listening room is the heart of the experimental program. An anthology had earlier been prepared and distributed to both sections; the tapes and anthology were coordinated in such a way that almost all the poems on the tapes were found in order in the anthology. The basis of organization in the anthology was according to school calendar and subject matter; i.e., the topics to be covered in class during the week, and the poems to be used as examples, were gathered into short sections. A workbook was also prepared and distributed to the students; answers to questions found in the workbook were to be returned to the instructor for evaluation.

Because of problems inherent in the original workbook, as detailed on page 6 above, it was abandoned during the spring quarter and revised completely before the fall quarter of 1968-69 began. The major revision

was in the nature of the questions; in the new workbook the questions were limited to multiple choice, short answer, or true and false types. Sufficient material was prepared to help the student through the entire course, but the use of the workbook as a testing device was finally abandoned altogether, as explained on pages 12 and 13.

After the quarter began in 67-68, an additional facet of the experiment was added: the extensive use of visual material with slide and overhead projectors. These proved so effective, that the major program in 1968-69 was to develop the technological, media-oriented portion of the project to a greater extent. The successful application of media in the teaching of poetry on this elementary college level should have broad implications. Some of these implications--such as multi-media packages or kits--I have investigated in the course of the CORD project; but the majority remain to be explored. The specific applications developed through the CORD grant will be discussed to a greater extent beginning on page 9 and the possible implications will be discussed beginning page 19

Objectives

Following is a list of the original objectives of the pilot program:

1. Provide control of class, especially large groups.
2. To present poetry to students, using media especially adaptable for transmitting poetry.
3. To provide authoritative or professional interpretations of works of poetry.
4. To introduce students to aspects and forms of poetry that rely essentially upon visual experience as well as the aural, and to integrate these aspects into the total understanding of literature.

5. To determine whether the above practices are effective in increasing the students' appreciation of poetry.

6. To develop more effective means of teaching the mechanics of poetry in the classroom situation.

Rationale and Results

Objective 1: to provide control of class, especially large groups.

Rationale: It is common knowledge that only a fraction of a class will be well-prepared on any given lecture day. Lectures based on prepared assignments are more effective when students have actually prepared.

Measurement Techniques: (a) Unannounced quizzes in both groups to determine performance as well as comparison of results with results of quizzes given by other instructors; (b) sign-out sheets for listening equipment to determine attendance at mandatory listening sessions, and occasional assignments to be given in the form of instructions recorded on the tapes.

Results: The experimental group seemed to be better prepared regularly, though responses were difficult to tabulate and interpret, i.e., attendance at listening sessions was very high, according to the sign-in sheets, but whether this was a result of the control technique or excitement at being involved in an unusual course remains undetermined. Unannounced quizzes were not given because of the unexpected pressure on class time (see below #6) and the unexpected length of time the instructor spent in organizing tapes, visual materials, and in grading regular quiz results with other sections, for the inconvenience to which other instructors felt they would be put made any attempt impolitic at

this time. The number of students answering questions found on the tapes only was quite high. The main result remains the personal impressions of the instructor: and it is my opinion that the experimental group contained a larger proportion of prepared students as reflected in the lively discussions in which they engaged and the pertinent questions they asked in class.

During the second year of the CORD funded experiment, 1968-69, an attempt was made to determine the effect of introducing large numbers of students to the program. In comparing test results between the normal-sized class (30 students) and the balloon-sized class (200 students) the difference was so great that more research would need to be done -- using stronger methods of control and discipline -- before reliable conclusions could be drawn. The balloon-sized class met three times each week and had the same assignments as did the control group. Because of the size of the experimental group, however, it was forced to meet in a different building, and the transporting of materials occasionally became an insuperable obstacle: items used in the media presentations were often not brought to the proper room -- projectors, screens, etc. -- wreaking havoc with the program. Additional difficulties arose as a result of the regis tration system: because the size of the class was announced at the time of registration, the experimental section seemed to attract larger numbers of poorly motivated students, and we had not prepared sufficient means -- nor had we sufficient funds -- to control attendance or discipline in class. The experimental group performed so poorly on quizzes in comparison with the control group that the exam grades could not be used to determine the final grades! And this, in spite of the fact that because of lack of funds we were unable to

monitor the quizzes effectively.

Objective 2: to present poetry to students using media especially adaptable for transmitting poetry.

Rationale: Most poetry relies on auditory stimuli for part of its effect; but the classroom experience provides little time or atmosphere for expert reading of poetry, and students are reluctant to read aloud privately, and frequently unable to read with expertise. Students in the experimental group would become initiated into the habit of hearing poetry read aloud..

In those circumstances in which the visual effect is of importance to the overall experience, visual aids would be employed both in the experience and in the discussions. The goal of this objcetive is to introduce the students to the variety of meaningful poetic experience, those ingredients help to effect the communication and expression for which we value the literary arts.

Measurement Technique: Students of both groups were tested in their understanding of technical devices used in poetry (rhythm, meter, rhyme, onomatopceia, alliteration, etc.) as well as their ability to recognize these devices when reading poetry they had not read before.

Results: In the four quizzes given during the quarter, the experimental group scored higher in each case; in two of the four quizzes the difference was at a statistically significant level, once to 5% and once to 2%. In the final examination, the mean score of the experimental group was again higher to a significant level--and the final exam tested the students' ability to apply their skills to poetry they were unfamiliar with.

During the second year of the project, an attempt was made to introduce computer assistance into the program--an attempt which finally failed.

The notion was as follows: all the questions in the workbook would be stored by the computer in separate categories according to the topic of the chapter from the text. It would be the students' responsibility to quiz themselves at a computer terminal when they felt that they understood a particular assignment. The computer would provide random questions upon request; the student would respond; the computer would evaluate the responses and direct the student to particular pages in the text to help him overcome any errors. Students would be required to take a minimum number of quizzes before the end of the quarter--the rest of the responsibility was theirs.

It had even been my hope that the computer could be programed to determine students' final grades by computing totals of all quizzes, papers, etc., including a numerical score provided by the teacher as the evaluation of classroom participation. The advantage would have been twofold: the student could not complain that he had been treated unfairly by his instructor; and the teacher would have to design lectures substantial enough to attract the students, for he could control only a small percentage of the grade! In addition, the final examination would also be administered by the computer, selecting in this case a larger number of questions from the stored bank. To help prevent cheating, the exam sheets would have the same questions but printed in a different order on each sheet. And again the computer would do the evaluation. Unfortunately, even the first part of the project required a complex computer program; and, when the programer took a new position in a distant city after several fruitless attempts at writing a program, the entire project was doomed. I am still convinced, however, that the procedure will prove academically feasible; but its abandonment at that time left us with a number of problems.

In order to prepare the class for the computer project, all the pages

containing questions were deleted from the workbook; and while we waited for the computer program to become operational, the workbook itself was largely inoperative. By the time it was determined that we would have no computer assistance the damage was already done: we tried to distribute workbook supplements to the students in order to replace the questions and answers, but the scores on the quizzes and the final exam were very poor and could not be depended upon when grades were finally given.

Objective 3: to provide authoritative or professional interpretations of the works.

Rationale: Recordings of the poets reading their own poems, or expert readers performing the works of poets no longer living provide examples of emphasis, stress, tone, and pronunciation which transmit nuances of meaning untransmitted by the printed page, meanings often lost in student readings.

Measurement Technique: Students in both groups were tested, and results compared, on such matters as the tone of a poem (ironic, satiric, romantic, etc. and on the meaning of specific lines.

Results: The results of the quizzes have already been reported in #2 above; the particular quizzes in question did not show a significant difference in the means, though the mean of the experimental group was higher than that of the control group. Though the outcome was disappointing, I feel that the fault lies not in the technique but in its application; the reduced classroom time was sorely missed throughout the quarter, and particularly in the limited number of quizzes given. More classroom time and clearer communication of teaching objectives will, I feel, greatly improve the effectiveness of the aural experience in these subjects. (See #6 below.)

Objective 4: to introduce students to forms and aspects of poetry that rely primarily upon visual experience, and to integrate these aspects into

the total understanding of literature.

Rationale: At least as early as the ancient Greeks, the visual appearance of poetry played some role in its interpretation; and throughout our history poetic illustration has survived--in late medieval English poets, in the metaphysical poets, the emblem writers, in American poets like E. E. Cummings and the contemporary school of 'concrete' poetry. Because the lecture method is inadequate for presenting visual poetry, this subject is ordinarily omitted from the syllabus. In addition, even standard forms of poetry rely on visual effects to some extent: indentations, capitalization, centering on a page, all are visual effects that are conaciously poetic devices.

Measurement Technique: Since the objective is primarily to introduce students to this ingredient, the measurement technique was necessarily informal. We relied upon information provided by formal questionnaire and other indicators of interest.

Results: The response to the visual experience of poetry was excellent, second only to the response to the poetry on tape. (See #5 below for the analysis of the overall response.)

Objective 5: to determine whether the above practices are effective in increasing the students' appreciation of poetry.

Rationale: The prime purpose of literature is pleasure, or appreciation. The course which leaves a student with a strong dislike for poetry has failed to some degree, no matter how well that student may be able to analyse and understand.

Measurement Technique: (a) The experimental group was to be afforded the opportunity of listening to a series of taped readings on an optional basis. Response to this optional series was to be measured on a continuing basis. (b) Both groups were to be measured and compared according to their attendance

at optional readings regularly given by members of the Humanities Department, as well as poetry readings sponsored by other organizations on campus.

Results: Because of an unexpected and prolonged labor dispute at the plant producing the tape cartridges, additional tapes were not available for taping the optional sessions. An attempt was made to check attendance at the extra-curricular readings, but outside factors such as publicity and popularity of a particular reader led to contamination of results--and the presence of an instructor taking selective attendance was felt to be intrusive.

On the other hand, the final examination included a section in which students commented anonymously. Thirty replies were returned in the experimental group; twenty referred specifically to the tapes: eighteen made favorable comments--regarding both understanding and appreciation; one reply indicated that the tapes had not impressed him; one objected on the grounds that the student had to go to the library to hear them; and one student replied, "Throw the whole program out--it is not worth it!"

In spite of this lone beacon in the dark, there were other indications that the tapes increased enjoyment and appreciation, as well as instigating excitement in a course which too often suffers from a lack of inspiration:

a) One problem of control encountered at the start of the experiment was the absence of a lock on the door to the listening room. The result was that the control group--though they had been asked not to--repeatedly used the listening room to hear tapes. This may have contaminated some of the quiz results, but it reflected also the reaction of the control group to the withholding of the listening room opportunity.

b) Another interesting result was that numerous students asked for permission to audit the class or use the listening room. One name that was entirely unknown to me repeatedly appeared on the sign-out sheets.

c) Another indicator is the interest shown by faculty in other state schools during a recent trip; this interest indicates a readiness of other experienced persons to recognize that the appreciation of poetry would be enhanced by the auditory system.

d) Two blind students--one regularly enrolled, and one not--indicated that the system of tapes made the study of poetry far more meaningful to them, that the tapes were better than readers.

e) The Department of Audiovisual Instruction (DAVI) of the National Education Association (NEA) scheduled a symposium which I organized at their last national convention (Apr. 27-May 1, 1969). The symposium, entitled "The Relevance of Media in the Arts and Humanities," was attended by approximately three-hundred persons, and was based on this (and other) CORD project.

Objective 6: to develop more effective means of teaching the mechanics of poetry in the classroom situation.

Rationale: The first weeks of the program indicated to me that a study of the objectives of the course was required. Since we had determined to avoid reading poetry in class, and since the lectures were directed toward understanding rather than appreciation, many more of the devices of poetry needed to be taught. The study of poetic devices grew in part from questions raised by the workbooks, to explain the questions and to clarify the answers. The classroom discussion elicited by the tapes also indicated a need for a vocabulary of poetic devices, or literary terms, as well as a need for skill in analyzing and evaluating the use of such devices. Trying to avoid the system by which I had been taught poetic devices as an undergraduate, I tried to initiate a system of overhead transparencies which would coordinate with the poems in the anthology and with the weekly syllabus. An additional CORD grant was made in the amount of $85.00 to

facilitate this development. The use of these transparencies was intended to make the technical study of poetry more comprehensive in scope, less haphazard in occurrence, and less time-consuming, for it obviated the need for extensive use of the blackboard.

In addition we were able to teach poems which were previously not appropriate--'concrete'poetry, and the like; and we were able to explain some poems better by showing illustrations relevant to their explication--the poems of William Blake and E. E. Cummings, for example.

Measurement Technique: No measurement technique was developed because the system was personally initiated in both sections and only later incorporated as part of the CORD funded program.

Results: The transparencies are still in an early state of development; nevertheless, I feel that many have been highly successful. This judgment I base on (1) my own observation, (2) the comments of students made during the experimental program and on the final examination, (3) the demonstrated ability of students' use of literary vocabulary and analytical skills in writing required term papers, (4) the disinterested opinion of the editors of Houghton Mifflin Company who have indicated a strong willingness to invest in publishing the developed material, and (5) the numerous invitations I have received to demonstrate the materials and methods developed during the CORD project, and the number of requests made by teachers (and one television program) to borrow the materials and techniques for use in their own classes. (See Appendix C below, page 21 for copies of the correspondence, see Appendix D below for example of slide-tape package and its explanation).

SUMMATION

The CORD project in The Use of Media in the Teaching of Poetry, in the opinion of the researcher, and with the support of the statistics earlier reported, has met with modest success. Some of the evidence is inconclusive and points to firmer controls, better methods of evaluation, and more highly developed teaching techniques. But these qualifications should also be counted as part of the success of the project, for the discovery of inadequacies and a re-examination of procedures and objectives are essential to the improvement of any program. In addition, the pilot program has revealed to this instructor several needs of which he had earlier been unaware: (a) the need for a list of objectives which can guide the direction of the poetry course, (b) the need to inform students what they can expect to learn, what the goals of the course are, and what their responsibilities will be, (c) the need for more regular quizzes, (d) the need to develop means of self-evaluation for the benefit of the students, and (e) the need to develop better lines of communication throughout the college community in order to disseminate the results of pilot projects such as this, and in order to inform interested persons of the wealth of information and material which may be useful in teaching.

The specific accomplishments of the project are as follows:

a) organizing an introductory course in poetry in which the anthology/workbook was coordinated with a system of tape recordings containing every poem in the anthology, and a system of overhead transparencies and slides designed to help teach the literary principles for which the poems were chosen.

b) controling and evaluating the above system.

c) disseminating the results of the project as much as possible.

Future Projections

The results of the CORD project in the teaching of poetry point to the following developments for future implementation:

1) Continued development of synchronized slide-tape programs which present short instructional and cultural programs for use in the classroom; each program should have limited objectives.

2) Development of slide-tape programs which could be used in social studies courses as well as literature, art as well as music, "black studies" as well as history.

3) Development of specialized courses using the present introductory course as a basis: contemporary American poetry, for example, or advanced poetics, or methods of teaching English.

4) Dissemination through English teaching institutes for teachers in disadvantaged areas as well as regular teachers.

5) Development of culturally integrated programs for use in culturally and academically disadvantaged projects.

6) Development of programs specially designed for students with severe learning difficulties, or with limiting physical handicaps such as blindness, deafness, or various paralyses.

APPENDIX J

Excerpts From:

"Utilization of Taped Inputs on Wurlitzer Electronic Pianos to Improve Ear Training and Key-Board Skills Teaching Methods"

David Wallace
Oregon College of Education

U.S. Office of Education

C.O.R.D. Project 20-4381:

Utilization of Taped Inputs on Wurlitzer Electronic Pianos to Improve Ear Training and Keyboard Skills Teaching Methods

FINAL REPORT

Submitted by

David Wallace

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II Project Design

The first task in designing the project was to determine what goals should be attempted. In order to verify the correctness of direction in ear training and dictation skills, members of the O.C.E. music staff were polled as to their ideas, music theory, department people at other state institutions were interviewed by telephone. When a valid list of objectives had been formed, a pre-test was constructed which attempted to measure these objectives. The pre-test was also to be used as a post-test. (See Appendices C and F.)

Next, the first few audio tapes to be used in the project were recorded. Each tape had sections concentrating on the three basic ear training and dictation skills--melody, rhythm, and harmony--as well as sections to increase keyboard facility in responding to dictated materials. The emphasis in designing the tapes was on tactile rather than written response, insofar as possible. Succeeding tapes were built on the experience of the first ones as the course proceeded. Thus each weeks tape included additional materials at the same level if class preformances indicated more practice was needed; conversely, when a reasonable level of proficiency was attained, materials became progressively more complex.

It was felt that the students would profit most from the taped instruction if they were able to verify the accuracy of their responses immediately. Therefore, in some cases correct solutions were given on the tapes and in most cases they were given on an answer sheet provided to each student.

In addition to the answer sheet, students had a tally sheet on which they marked wrong responses. These were also used in some cases for writing and dictated examples, which could then be checked immediately against the answer sheet. The tally sheets were collected each class

period, enabling the instructor to spot individual difficulties and assign additional work where necessary to increase proficiency.

No letter grade was given for performances in the laboratory sessions. However, attendance was required and students missing a session were responsible for making it up within the week.

The plan for the course was to have a new tape each week. In the first year, nineteen weekly sessions and the pre/post-test were recorded. In the second year, an additional seven tapes were recorded and revisions made in earlier ones.

As a result of the first year's experience, tapes for the second year included recycling of material from earlier tapes and in later ones. Additional tapes were also inserted in the sequence to recycle previously-heard materials. (A sample tally sheet and verbal instructions for one of the sessions is reproduced in Appendix E.)

III. PROJECT OPERATION

The pre-test was administered during the first week of fall term. Those parts of the test requiring a tactile response were individually monitored and recorded for evaluation. The written portions were given to the whole group at once, with keyboard use permitted in arriving at solutions.

The piano laboratory seats twelve students at individual keyboards. Each keyboard has earphones so that students hear only themselves unless the instructor requests that they play for the group. Pre-taped instruction is fed into the keyboards through a master console. It is also possible for the instructor to listen in on each keyboard.

As the students worked at the pre-recorded material, students needing special help were taken to another room and given intensive assistance and supplementary materials. It was found that after several weeks of this kind of effort, combined with some outside additional work, students were able to keep up with group progress.

Students who missed a keyboard session would pick up the tape for that session and a tape recorder during the week and complete the assignment individually. Since no grade was issued there was no advantage to the student in cheating. Therefore, this never became a problem.

A sample pre/post-test is included as Appendix F.

IV Project Results

For each year of its operation, the project was evaluated by a group of three experts. The panel the first year was:

> Dr. Edgar H. Smith, chairman of O.C.E. Music Department;
> Dr. A. Laurence Lyon, O.C.E. Music Department; and
> Charles Bestor, Dean of the School of Music, Willamette University..

The second year Dr. Smith and Dr. Lyon re-evaluated the tapes with revisions and additions. The third panel member was:

> Dr. Donald J. Funes, O.C.E. Music Department

All members of the panel have had extensive experience in teaching music theory. (The criteria for evaluators are reproduced in Appendix G.)

In addition to the evaluation by experts, a student reaction sheet was added the second year of the project. The students were asked to compare their experience with pre-taped instruction in second-year theory to their experience with teacher-led instruction in first-year theory.

In summary, the panel of experts agreed that on the whole the tapes performed at a level of adequate to superior in moving toward the stated objectives. There were reservations on the merits of the pre/post-test. This appears to need revisions to better measure the stated objectives.

The student evaluation sheets revealed that, without exception, the pre-taped instruction was regarded as superior to teacher-led instruction in these skills. There was a strong indication that students should be allowed to manipulate the tapes individually rather than work in groups. There were also suggestions that the tapes be split by category--i.e, melodic, rhythmic, harmonic--so that faster progress could be made in areas where students already possessed some skills.

Dr. Lyon, who will be teaching second-year theory next year, plans to continue use of the tapes, possibly with some revisions. Use of

pre-taped instruction from available commercial sources is also planned for first-year music theory classes at O.C.E. as a result of the experience with the second-year tapes.

The results of the 1968-69 pre/post-test are included as Appendix H.

APPENDIX C

STUDENT COURSE OBJECTIVES

1. Ability to discriminate dictated melodic intervals and patterns.*
2. Ability to accurately notate (pitch, rhythm, and meter) a melody from a given multi-voiced context.*
3. Ability to identify and accurately notate dictated rhythmic patterns.*
4. Ability to identify quality and inversion in dictated chord structures.*
5. Ability to identify and name all four notes in four-part dictation.*
6. Ability to translate chord names and/or symbols into keyboard performance; i.e., to respond to chord name and quality given visually or aurally by playing requested chord on the keyboard.#
7. Ability to create and perform on the keyboard a chordal accompaniment to a given melody.#

* Primary Objectives

\# Secondary Objectives

APPENDIX G

EVALUATOR CRITERION STANDARDS

I. In your opinion, does each tape perform its stated objectives?

To which student course objective (or objectives) does each tape example correspond? To what degree does it validate that objective?

Note: Do not be constrained in identifying objectives realized by those listed on the evaluation sheet. If other performance patterns than those listed emerge, make comments by referring to appropriate tape section.

II. After analyzing each tape, compare your sampling of the course with the pre/post test.

Does the test fairly measure the objectives stated? (Are course objectives omitted or are some objectives unfairly weighted?)

How well do the specific tape objectives lead toward the stated terminal objectives (student course objectives)?