THE ESTABLISHMENT OF THE STATE RESEARCH COORDINATING UNIT FOR THE STATE OF NEW MEXICO.

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THE FINAL REPORT OF THE FIRST FUNDING PERIOD, JULY 1, 1965 TO FEBRUARY 28, 1967, IS PRESENTED. THE PURPOSES OF THE UNIT WERE (1) WORK WITH THE STATE DEPARTMENT OF EDUCATION RESEARCH DIVISION AND LOCAL EDUCATIONAL INSTITUTIONS IN PROMOTING AND ASSISTING RESEARCH STUDIES AND PROGRAMS CONCERNED WITH OCCUPATIONAL STUDIES, AND (2) WORK WITH THE STATE EMPLOYMENT SECURITY COMMISSION AND THE STATE PLANNING OFFICE IN AN OVERALL PROGRAM FOR IMPROVING AND EXPANDING OF OCCUPATIONAL RESEARCH THROUGHOUT THE STATE. THE UNIT HAS COORDINATED APPROXIMATELY 20 RESEARCH PROJECTS RANGING FROM SIMPLE SURVEYS TO RESEARCH REQUIRING ADVANCED STATISTICAL ANALYSIS. THE APPENDIX CONTAINS SUMMARIES OF RESEARCH ACTIVITIES--(1) COMPLETED, WHICH INCLUDE VOCATIONAL CORE PROGRAM, STATE VOCATIONAL SURVEY, LOCATING AREA VOCATIONAL SCHOOLS, AND VOCATIONAL EDUCATION IN NEW MEXICO, (2) UNDERWAY, WHICH INCLUDE MOBILE LABORATORIES, TRADE AND INDUSTRIAL EDUCATION PROJECT, AND VOCATIONAL EVALUATION PROJECT, AND (3) PROPOSED, WHICH INCLUDE TAPE RECORDED OCCUPATIONAL INFORMATION, MANPOWER FOLLOWUP STUDY, AND DISTRIBUTIVE EDUCATION IN DEXTER-HAGERMAN SCHOOLS. (HC)
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Research Coordinating Unit
Division of Vocational Education

Santa Fe, New Mexico
INTRODUCTION

The purpose of the Occupational Research and Development Coordinating Unit in New Mexico was to work with the State Department of Education Research Division, with local schools, colleges, and universities in promoting and assisting research studies and programs concerned with occupational studies and to work with the State Employment Security Commission and the State Planning Office in an overall program of improvement and expansion for occupational research throughout the state.

This project when first established envisioned six major activities. (1) complete the occupational survey of New Mexico, prepare the data for dissemination throughout the state, and to assist in determining means for implementation of programs indicated by the survey. (2) a second major area was to work closely and cooperatively with the Research Division of the New Mexico State Department of Education. (3) the Coordinating Unit, in cooperation with the Research Division, would accept responsibility for the statewide coordination of planning and research in the entire vocational education field. (4) the fourth activity was to work cooperatively in coordination of research in New Mexico colleges and universities which perform a certain amount of occupational research in their graduate level programs. (5) the fifth activity was to assist in implementation of developmental and experimental research programs. (6) the sixth activity was to assist the participants in any occupational research program growing out of the Manpower Development Training Act, Area Redevelopment Act, Economic Opportunity Act, or Elementary and Secondary Education Act.
METHOD

Various means were utilized to accomplish the objectives set forth for this project. Various meetings and publications have been organized by the Research Coordinating Unit to facilitate vocational research in New Mexico. Contact has been made with the following agencies, institutions, and divisions of agencies concerning the coordinating of vocational Research in New Mexico.

State Department of Education, Division of Research
State Department of Education, Designing Education for the Future (Eight-state Project)
Southwestern Cooperative Laboratory
Educational Services Center (Title III Project)
Eastern New Mexico University
New Mexico Highlands University
New Mexico Institute of Mining and Technology
New Mexico Junior College
New Mexico State University
Western New Mexico University
College of Santa Fe
Los Lunas Training School
Northern New Mexico State School
New Mexico School for the Visually Handicapped
New Mexico Boys School
Correctional Institutions
Employment Security Commission
Vocational Rehabilitation
Motor Vehicle Department
Legislative School Study Committee
Educational Research Committee
State Planning Office
Office of Economic Opportunity
Bureau of Educational Finance
Governors Commission on E.T.V.
Labor and Industrial Commission
Indian Affairs Commission
Manpower Training Coordinator
Local School Districts in New Mexico
Bureau of Indian Affairs
Apprenticeship Council
Corporation Commission
Department of Automated Data Processing
Department of Development
Health Department
Personnel Department
University of New Mexico
As suggested in the objectives of the proposal, the Research Coordinating Unit in New Mexico has been intensively involved in the dissemination of data for the Statewide occupational survey. The survey, completed in May 1966, was conducted by Drs. D. S. Willey and J. D. McComas from New Mexico State University. This survey interviewed more than 11,000 firms in thirty-two population centers in New Mexico. The survey indicated present and prospective needs will exceed 68,000 people in various occupations in the next five years. The budget of $63,000 was from state and federal funds (Vocational Act of 1963). The Research Coordinating Unit has disseminated the results of the survey throughout the state to superintendents, city planners, Chambers of Commerce and interested people who have submitted request. Frequently the RCU has been called on to work with people throughout New Mexico concerning the interpretation and utilization of this survey.

A second major area of work as stated in the proposal was to cooperate and work closely with the Research Division of the State Department of Education. This has been accomplished in many ways. The Research Coordinating Unit is housed with the Research Division thus ensuring daily interaction. The Director of the Research Division, Dr. Merrill Redemer, holds a position on the Vocational Research Review Panel. This panel is charged with the responsibility of evaluating proposals and recommending the disposition of proposals to the RCU. A second duty of this review panel is to review the design and method of research proposals submitted to them and to make recommendations concerning changes or improvements which they deem necessary. Through this panel the Director of the Research Division is consulted on every proposal that is submitted to the RCU. (The Research Division and the RCU are jointly working on a dropout study of New Mexico Schools.)

The Research Coordinating Unit, in cooperation with the Research Division, would accept responsibility for the statewide coordination of planning and research in the vocational field. The Research Coordinating Unit has approached this broad objective through various means. A series of statewide meetings were held to bring together college people, secondary school personnel, representatives of industry and labor, and research personnel from the Department of Education for the purposes of establishing coordination of research in the state and to precipitate interaction of the people involved in New Mexico. Additionally, the Research Coordinating Unit has worked extensively with the New Mexico Employment Security Commission in the field of occupational research. The Unit has offered its services to researchers throughout the state concerning statistical treatment, technical
writing, applications for grants or funds, and/or securing needed information.

The fourth activity as stated in the original proposal was to work cooperatively in coordination of research in New Mexico colleges and universities which perform a certain amount of occupational research in their graduate level programs. Personnel from the Research Coordinating Unit have made personal visits to all institutions of higher learning in New Mexico for the purpose of surveying what research is being conducted and to apprise research personnel of the services offered by the Research Coordinating Unit. At the completion of this project, the Unit has completed one project with a University. There are seven projects funded and underway with various colleges and universities in New Mexico that will be completed under the continuing project.

The fifth activity as stated in the proposal, was to assist in implementation of developmental and experimental research programs. A project to further this objective was developed with Louis Kleine, (Head, Department of Engineering Technology, New Mexico State University). This project entitled Development and Testing of an Experimental Mobile Instructional Facility for Applied Courses in Engineering Technology was funded through Section 4(c) of the Vocational Education Act of 1963. A second project entitled A Proposed Model and Criteria for Locating and Establishing Area Vocational-Technical Schools in New Mexico was submitted by John E. Uxer. Another developmental project has been funded. The project entitled Development of Instruments and Procedures for the Evaluation of Local School Programs of Vocational Education was submitted by Dr. J. D. McComas.

The sixth activity as stated in the proposal was to assist the participants in any occupational research program growing out of the Manpower Development Training Act, Area Redevelopment Act, Economic Opportunity Act, or Elementary and Secondary Education Act. The Research Coordinating Unit has worked closely with the director of the Manpower Development and Training Act. The Unit is in the process of designing two research projects which will study the reasons for dropouts in MDTA classes and a follow up of graduates of the MDTA program with the director of MDTA and the State Employment Security Commission. These projects will be developed in the following Research Coordinating Unit project. A survey funded under Title V of the Elementary and Secondary Education Act has been completed. This survey of privately-owned vocational schools in New Mexico provides information concerning the physical plant, qualifications of management, background of the instructional staff, plans for expansion, types of instruction offered, enrollment and class capacity. See appendix Number 1 for a summary of projects.
DISCUSSION

The Research Coordinating Unit has made the following possible in the Vocational Division of the State Department of Education. Supervisors have little time to devote to research or coordination of research because of their various activities, but often find areas in which research needs to be done. The Research Coordinating Unit by working closely with the supervisors has helped to develop their ideas into research projects. Research Coordinating Unit personnel and various supervisors have conducted small research projects together. Large projects have been contracted to various research agencies and personnel in New Mexico.

The Research Coordinating Unit personnel have developed various publications upon request of personnel in the Vocational Division. Public relations activities such as preparation of publications, speaking engagements, representation at state and area meetings, and research dissemination have been conducted by the Research Coordinating Unit.

The Research Coordinating Unit has filled a void that could not have been filled without research funds being available. After the Air Force announced plans to abandon Walker Air Force Base in Roswell, New Mexico, the Research Coordinating Unit was asked to conduct a survey of facilities, personnel needs, and the feasibility of establishing an area vocational school at the abandoned facility. This was accomplished through a contract with Eastern New Mexico University as the investigating agency. After extensive use of the survey by legislative committees, the legislature has passed a bill appropriating $390,000 to establish a community college and vocational training center at Walker Air Force Base.

Another project that would not have been possible was a statewide survey of vocational occupations in New Mexico. This project, coordinated by the Research Coordinating Unit, was conducted by personnel from New Mexico State University. This year-long, $63,000 survey indicated projected needs for over 68,000 people in the next five years in New Mexico. The Research Coordinating Unit has disseminated this report to school superintendents and interested people throughout New Mexico.

During this project, the Research Coordinating Unit has coordinated eight completed projects. Eleven projects have been initiated and will be completed in the second funding period. Seven projects are under discussion with some pending funding. It is anticipated that these projects will be completed in the next funding period. Information concerning projects mentioned in this report may be found in Appendix I of this report.
CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

A general consensus of opinion of research and vocational personnel in New Mexico is that the Research Coordinating Unit is filling a long vacant place in vocational education. Before the Research Coordinating Unit was established, Vocational personnel in New Mexico had little resources, personnel, or time to devote to research. The Research Coordinating Unit has supplied resources and located personnel for these activities.

A conclusion that has developed in the course of this project is the need for evaluative criteria for vocational education. At the close of this project the Unit has two projects underway which are working on evaluative procedures for vocational education. Also, the Research Coordinating Unit in New Mexico expects to be deeply involved in this area in the second funding period.

A recommendation received by the Research Coordinating Unit was to establish a process for an annual survey concerning vocational needs in New Mexico. This project is being developed and will be initiated in the near future.

One area of concern in New Mexico is the implementation of known research into existing programs. Possible ways of implementing this would be demonstration programs in selected schools. Additional methods which the Research Coordinating Unit is carrying on and will continue to use are publications concerning various successful programs and sponsoring visits of school people to these successful programs.

During this project a model for locating Area Vocational Schools in New Mexico was developed. It is recommended that this model be applied to New Mexico with proper justification for each selected school. The Research Coordinating Unit currently has under discussion a project that will do this.
SUMMARY

At the implementation of this project, six major activities were envisioned. Most of the objectives of the activities have been met. The Unit has been concerned with the initiation and stimulation of vocational research in New Mexico. The Research Coordinating Unit has coordinated approximately 20 research projects ranging in type from a simple survey to research requiring advanced statistical analysis.

In the continuing project, the Research Coordinating Unit expects to complete the projects underway and to continue to offer consultative services to researchers in the state.
Appendix Number I

RESEARCH ACTIVITIES

OF THE

RESEARCH COORDINATING UNIT

Vocational Education Division
State Department of Education
A survey conducted by AVC, Inc., of Albuquerque, surveyed the capabilities of privately-owned vocational schools in New Mexico. Information concerning the physical plant, management, instructional staff, class capacity, and plans for expansion are now available.

Funded under Title V of the Elementary and Secondary Education Act, this survey provided information for both long and short term planning in the field of vocational education. This project completed in November, 1966, had a total budget of $7,500.

**Vocational Core Program**

Vocational Core Program is the title of a publication prepared by the Research Coordinating Unit concerning a flexible core curriculum at Hobbs, New Mexico. This 12 year old program has been designed to meet the needs, problems, and interest of adolescents selected from problem areas. Copies are available from the Research Coordinating Unit.

**State Vocational Survey**

A statewide occupational survey, completed in May, 1966, was conducted by Drs. D. S. Willey and J. D. McComas from New Mexico State University. This survey interviewed more than 11,000 firms in thirty-two different population centers in New Mexico. The survey indicated present and prospective needs exceeded 68,000 people in the various occupations. The budget of $63,000 was from state and federal funds (Vocational Act of 1963). Results of this study may be obtained from the R.C.U. The RCU has disseminated the results of this study to the various population centers throughout the state who participated in the survey.
High School Distributive Education

The Research Coordinating Unit has completed a publication entitled Distributive Education at Highlands High School 1956-1966. The information was obtained from a survey conducted by Mr. Lowry Kinzer and Mr. John Stevenoski of the Albuquerque Public Schools. Copies may be obtained from the Research Coordinating Unit.

Vocational Education in New Mexico

A publication entitled Vocational Education in New Mexico has been completed by the Research Coordinating Unit. Information included concerns the status of various vocational programs in New Mexico. Additionally, information concerning programs offered by the Vocational and Technical institutes in New Mexico is included in the publication. Copies are available from the Research Coordinating Unit office.

Survey of Research and Data

A survey of research and data available from various state agencies was conducted by a research team headed by Dr. Pat Lynch, Director of the Title III Educational Services Center in Albuquerque. The survey has been received, edited and printed. This survey will be presented to a committee of research people from the various state agencies for final review.

Locating Area Vocational Schools

A proposal entitled, "A Proposed Model and Criteria for Establishing Area Vocational-Technical Schools in New Mexico" has been completed by John E. Uxer, Instructor in the Department of Education, New Mexico State University. This project was funded
through the Research Coordinating Unit, Title V of the Elementary and Secondary Education Act of 1965, and New Mexico State University with a budget of $11,166.

The purpose of the study was to examine pertinent factors relating to the establishment of Vocational and Technical Programs and to develop a model with appropriate variables for locating and establishing Area Vocational Schools in New Mexico. Further information is available from the Research Coordinating Unit.

Roswell Air Force Base Survey

A survey to determine the feasibility of development and use of the facilities and equipment of Walker Air Force Base for Vocational-Technical Programs has been completed with Eastern New Mexico University, the contracting agency. The survey was initiated after the Air Force announced plans to abandon the base.

The Research Coordinating Unit funded this project with a budget of $5,293.79. The purpose of the study was to survey program needs, determine the feasibility of establishing programs, survey the facilities, project the cost of these programs and investigate resources available at the Roswell Air Force Base and the surrounding area.

In March, the Legislature passed a bill authorizing a $390,000 appropriation for the establishment of a Technical-Vocational School at Walker Air Force Base.
UNDERWAY

Mobile Laboratories

A proposal by Louis Kleine, (Head, Department of Engineering Technology, New Mexico State University) entitled, Development and Testing of an Experimental Mobile Instructional Facility for Applied Courses in Engineering Technology is underway. Thirty-one thousand dollars of federal funds from Section 4(c) of the Vocational Education Act of 1963 were approved for this project. This 22 month project began April 1, 1966, and will end January 31, 1968.

The purpose of this project is to assess the educational and economic feasibility of providing mobile laboratory facilities for conducting classes in applied electricity at branch colleges of New Mexico State University. The statistical analysis will compare learning and financial aspects of the mobile laboratory against permanent facilities.

Junior High Vocational Information

A proposal entitled, Pre-Vocational Orientation for Junior High School Students has been funded by the Research Coordinating Unit. Dr. William Cross of New Mexico State University will direct the study. The purpose of this study is to compile a source of occupational information materials which are appropriate for use with junior high school students in New Mexico. This seven-month project was awarded $4,913 from the Research Coordinating Unit.
Regina School of Nursing Project

The transition from the three-year nursing program to the two-year associate degree program is one that has proven most difficult to many nursing programs. The Research Coordinating Unit, in conjunction with the Regina School of Nursing, is developing guidelines for this transitional period. This project, scheduled for completion in the latter part of 1967, calls for an expenditure of approximately $5,000 of Research Coordinating Unit funds.

Trades and Industrial Education Project

A project to develop programs for Trade and Industrial Education has been funded by the Research Coordinating Unit. This project directed by Lee Palmer, State Supervisor of Trade and Industrial Education, will bring together outstanding educators in Trade and Industrial Education on a month-long brainstorming session in which ideas concerning Trade and Industrial Education will be considered and teaching materials developed.

High School Curriculum Evaluation

The Effect of the High School Curriculum Upon College Success is the title of a proposal which is underway. This study by Mr. Rock Ashcraft of Alamogordo Community College will investigate differences between the college success of students who have a large concentration of college preparatory courses and those who have had vocational training in high school. This study would help counselors and curriculum designers in evaluating curricula for college-bound students.

This 12-month project, ending July 31, 1967, has a grant of $5,934 from the Research Coordinating Unit.
Computer Scheduling

In operation at the present time is a cooperative project of the Research Division's Title X Agency, the Educational Services Center at Albuquerque, the Los Lunas Public Schools and the Research Coordinating Unit. This project concerns itself with the scheduling of the secondary school classes by computer. It is felt that this project will be of extreme benefit to all schools in the state. A model will be developed enumerating the various steps necessary to solve scheduling problems by computer.

Reimbursement Model

One of the major difficulties concerning Vocational Education programs in the United States has been the reimbursement procedures to the public schools. The Unit is attempting to develop a computerized model for reimbursement of Vocational Education programs.

Home Economics Study

The Unit, in collaboration with the State Supervisor of Home Economics, is analyzing data received from over 4,000 questionnaires submitted to all girls in the graduating class of 1961. The data have been punched on cards and are being analyzed by computer. This study, a comprehensive follow-up of high school graduates, will provide valuable data for future program planning.
Vocational Evaluation Project

The Unit is working in conjunction with the University of California, at Berkeley, on a self-evaluation project concerning the 50 states and the State Departments of Vocational Education. This project, involving State Department of Education personnel, public school personnel, college teachers and the lay public, is to be completed in June of this year.

Evaluation

The State Director of Vocational Education, Dr. M. G. Hunt, has been appointed to an advisory council by President Johnson to evaluate the 1963 Vocational Education Act. Dr. Hunt has requested that the Unit provide data for this evaluation that might be used in the national survey.

Information System

The director of the Research Coordinating Unit has been appointed to a national 10-member committee to develop a Vocational Education information system. This group, composed of 5 vocational educators and 5 Title X NDEA persons, will meet to develop a computerized data collection procedure for Vocational Education.
PROPOSED

Tape Recorded Occupational Information

A Library of Tape Recorded Occupational Information is the title of a proposal which has been submitted to Title III of ESEA for funding. The principal investigator, Dr. William E. Ogden from the College of Santa Fe, is asking for $20,519 in federal funds.

This study would establish and maintain a library of tape recorded interviews with vocational people in New Mexico; i.e., mechanics, salesmen, brick layers, etc. Tapes would be made available to high school and vocational school counselors on a postage basis. The project duration would be June 1, 1967 through June 1, 1968.

Fairchild Corporation

A research program comparing the working capabilities of male and female Navajo Indians at Fairchild Corporation assembly lines at Shiprock, New Mexico, is under discussion with the State Employment Security Commission, Bureau of Indian Affairs and Fairchild.

The plant management admits to a preference for women to work in assembly type work. Since the Fairchild plant is a vitally important factor in the economic picture at Shiprock, it is important to find out if this preference has a sound basis. The Research Coordinating Unit is serving as the coordinator and research director for the project.
Manpower Follow-up Study

In cooperation with the Employment Securities Commission, New Mexico State School at El Rito, and the Manpower Division of the State Department of Vocational Education, the Research Coordinating Unit is preparing a proposal to be submitted in the near future concerning a follow-up of persons completing or dropping out of manpower training programs. The purpose of the project will attempt to ascertain why a project is successful or unsuccessful, and to identify variables contributing to the success or failure of programs or students in the program.

Special Education - Alamogordo

A proposal entitled, An Experimental Special Education Program for Employment Orientated Education of Mentally Retarded Children is being prepared with Mr. Monte Jones of Alamogordo Public Schools as the principal investigator.

This program will be aimed initially at mentally retarded students who have trouble competing with students in the classroom or in the business world. In order to help these students produce effectively for themselves, the program proposes to teach each one a vocational skill.

This five year project's budget would be approximately $577,000.
Evaluation of Vocational Education

A proposal for the Development of Instruments and Procedures for the Evaluation of Local School Programs of Vocational Education has been submitted by Dr. J. D. McComas, Head, Department of Elementary and Secondary Education, New Mexico State University. This project would develop instruments and procedures for evaluation of Vocational Programs by utilizing advisory groups, review of available literature, and use consultants from various areas of Vocational Education to develop criteria for evaluation.

This twelve-month project is requesting $5,122 through the Research Coordinating Unit.

Waitress and Food Handling Occupational Training Program

A follow-up study of the graduates of an occupational training program in waitress and food handling at Rio Grande High School, in Albuquerque, New Mexico, is under discussion with Mrs. Jan Dillon, the supervisor of the program. The purpose of the project would be to identify areas stressed by employers and determine additional training needed by students.

Dexter-Hagerman, Distributive Education

A pilot program is being conducted in the Dexter-Hagerman Public Schools by which a Distributive Education coordinator is providing Distributive Education for two rural schools. Disadvantaged youth in these rural schools are being helped by this program. The Research Coordinating Unit is conferring with the personnel involved for the purpose of preparing a publication concerning the program.
Statewide Recurring Manpower Survey

The staff of the Research Coordinating Unit is in the process of designing a yearly recurring manpower survey of business establishments listed in the yellow pages in towns having over 2,000 population in New Mexico. Plans include the use of Vocational students as interviewers in the survey. The Research Coordinating Unit staff will coordinate the project.

Ellis Scott Study

A proposal entitled A Proposed Model and Criteria for Effectual Organizational Administrative Structure of Area Vocational Schools in New Mexico has been submitted by Ellis B. Scott from New Mexico State University. The 12-month project would develop criteria for an organizational administrative structure for area vocational schools. The Research Coordinating Unit Committee is reviewing this proposal.

Application of Uxer Model

Mobilization of Demographic, Economic, and Vocational Need Characteristics of New Mexico and Application of the Uxer Location Model is the title of a proposal submitted by Ronald Stark and Jerry Richards of New Mexico State. Essentially this project would use the Uxer Location Model to develop a priority list of population centers in which area vocational schools should be located. This 12-month project is currently being reviewed by the Research Coordinating Unit Committee.