The mini-grant concept has emerged in recent years as a specific catalyst for the promotion of educational change. A mini-grant is a small grant awarded to an individual (usually a teacher or supervisor) in order that he might investigate or further develop an idea within the classroom or school setting. Developed in the State of New York, this concept and the 19 funded projects for the 1972 year are highlighted in this document. Given are a list of the research topics and names of the investigators as well as abstracts of the studies, denoting project titles, names and addresses of researchers, funding allotments, and names of sponsoring agencies. Rules and regulations governing proposal design and qualifications for the mini-grant award are appended as is a sample of the form to be used in making final project reports.

(Author/SN)
NEW YORK STATE

OCCUPATIONAL EDUCATION

MINI-GRANT PROGRAM

1972

FINAL REPORT

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Bureau of Occupational Education Research
Albany, New York  12224
April 1973
THE UNIVERSITY OF THE STATE OF NEW YORK

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(with years when terms expire)

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Louis A. Cohen
The Bureau of Occupational Education Research initiated the Occupational Education Mini-Grant Program for fiscal year 1972 with funds allocated under the Vocational Education Act.

The report discusses in brief the overall outlook of the mini-grant concept and outlines the procedures which were followed in conducting this program. Project results are presented in abstract form; for further information about the projects reported, the reader should contact the principal investigator at the address cited in each abstract.

The Occupational Education Mini-Grant Program was coordinated and administered by Gregory Benson, Diane Reiner, Whitney Wilkes, and William Alwell. The report was prepared by William Alwell. This program should not be confused with the New York State Education Department's Mini-Project; information on that program can be obtained by writing to your nearest Regional Education Center.

The Bureau of Occupational Education Research welcomes any feedback from readers of this report and users of the mini-grant products which might assist us in revising this program in future years to fit best the needs of the children of New York State.

Director, Division of Educational Research and Communications
CONTENTS

Foreword iii
The Mini-Grant Concept 2
Occupational Education Mini-Grant Program in 1972 3
Project Highlights 4
Conclusions 4
Summaries of Mini-Grants 7
"It is important to ask, along with specific questions about how schools function, more general questions about the development from childhood through youth to adulthood. Only by continuing to ask these more general questions can we avoid waking up some day to find that educational institutions are finely tuned and efficiently designed to cope with problems of an earlier day. Among the more general questions, we need to ask how it is that the young became adults, and what are the current and changing roles of the school, the family, and the workplace."\1

\1 James S. Coleman. "How Do the Young Become Adults?" *Review of Educational Research*. 42, No. 4, Fall 1972. 431.
MINI-GRANT CONCEPT

The mini-grant concept has emerged in recent years as a specific strategy for the promotion of educational change. A mini-grant is a small grant awarded to an individual, most often a teacher or school supervisor; it allows for the research and development of an innovative idea and the implementation of a small, relevant project in the classroom or within the school environment.

The role that the mini-grant concept can now play in education is unique. Educators and education researchers have shown growing concern regarding the immediate impact and the ultimate disposition of expensive education research projects. Too often, such projects are long-range in scope but short-term in interest and in the effect they have toward improving the educational process. The mini-grant can help to offset this situation—a successful mini-grant project can produce a positive effect at the local level in a short time period and with relatively little expenditure of money.

The 1972 mini-grant program gave individuals at local educational levels the opportunity to solve some of the persistent and aggravating problems which confront them daily. The success of this program, moreover, was founded on the belief that 1) the local practitioner, at the heart of the educational process, can recognize where immediate research efforts should be focused and how best to use the resultant research findings; and 2) local educational agencies can derive tangible benefits from research when actively involved in the conduct of the research.

The potential advantages and ultimate effects of a mini-grant program are, in some ways, comparable to the advantages and effects of more elaborate programs, though much less expensive. Specifically, both mini-grant and more elaborate programs can:
1. Give educators the opportunity to solve specific local problems;

2. Allow for the research and development of promising and innovative ideas which can positively affect general educational practices; and

3. Help create an "atmosphere for change" and add to the ultimate establishment of a system of continual change within the educational process.

The practicality and relevance of the mini-grant and its use as a viable alternative in all areas of education research should not be underestimated.

OCCUPATIONAL EDUCATION MINI-GRANT PROGRAM IN 1972

In November 1971, requests for proposals (RFPs) were mailed by the Bureau of Occupational Education to 1) Boards of Cooperative Educational Services and Regional Centers for distribution to the field; 2) New York State R&D Centers at Cornell and City University of New York for distribution to the field; and 3) selected bureaus within the New York State Education Department. The maximum amount of money awarded for each grant was $3,000, and the project period was from April 1, 1972-January 31, 1973. (See appendix A for the relevant portion of the RFP.)

Although the mini-grant concept and allocation were expressed in the New York State Plan for Occupational Education, the individual mini-grant areas of concern were left to the discretion of those persons applying for a grant. The only restriction specified in the request for proposals was that the proposed project must deal with some aspect of occupational education.

Three hundred twenty-five proposals were submitted for review prior to January 20, 1972. Staff members of the Bureau of Occupational Research rated all of these proposals. Those proposals receiving the highest
preliminary ratings were then submitted to the appropriate content bureaus for independent ratings. Ratings were made on the following criteria: 1) operational promise; 2) clarity; 3) soundness of design; and 4) economic efficiency. (See appendix B for Proposal Evaluation Form). The ratings were then weighted, and weighted scores were assigned to each proposal. The weighted scores were then averaged and those proposals receiving the highest average weighted score were recommended for funding.

A 300-500 word summary and a final report form (Appendix C) were required for each project. In cases where curriculum or other types of instructional materials were developed during the course of a project, two copies of such materials were required to accompany the final report.

**Project Highlights**

Nineteen mini-grants relating to occupational education were funded in 1972. Of the 19, five related to learner activities in occupational education, two to the development of occupational materials for use by guidance departments in the local districts, two to the relationship of curriculums between BOCES centers and home schools. The remaining 10 mini-grants related to other occupational education areas such as curriculum development for specific occupations, student transitions from home school to BOCES centers, and the effect of occupational curriculums on occupational performance. In most instances the mini-grants were successful in accomplishing stated proposal objectives.

**Conclusions**

The categories of proposed objectives have indicated the diversity
of local problems relating to occupational education. The work done by
the principal investigators is a demonstration that research and develop-
ment of innovative ideas can be done at the local levels. The implemen-
tation, continuation, and evaluation in terms of direct or implied pupil
services, has not been demonstrated. In summary, the implementation of
the mini-grant concept by the New York State Education Department has
proven feasible.
SUMMARIES OF MINI-GRANTS
<table>
<thead>
<tr>
<th>VEA NUMBER</th>
<th>TITLE</th>
<th>PRINCIPAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>72-C-206</td>
<td>Special Orientation and Counseling for Prospective Students in BOCES</td>
<td>Jay Waxenberg</td>
</tr>
<tr>
<td></td>
<td>Vocational Schools</td>
<td></td>
</tr>
<tr>
<td>72-C-728</td>
<td>Development of a Demonstration Program for Occupationally Based Language Arts and Social Sciences Instruction</td>
<td>Douglas Houck</td>
</tr>
<tr>
<td>72-C-729</td>
<td>Development of a Pilot Supervisory Program for Improving Instruction by Basing Teaching Strategy on Statements of Behavioral Objectives</td>
<td>Drhu H. Meeker</td>
</tr>
<tr>
<td>72-C-735</td>
<td>What Value an Audio M Health Science Careers Personal...</td>
<td>Robert C. Kochersberger</td>
</tr>
<tr>
<td>72-C-736</td>
<td>A Bet on a Gift Horse - Win, Place or Show?</td>
<td>Roger C. Seager</td>
</tr>
<tr>
<td>72-C-737</td>
<td>A Comparative Analysis of the Impact of High School and Junior College Preparation on the Vocational Success of Graduates of Secretarial Programs With Implications for Career Guidance and Curriculum Revision</td>
<td>Adelord Blanchard</td>
</tr>
<tr>
<td>72-C-759</td>
<td>Development of a Curriculum for Activities Assistants for Use in a BOCES Program</td>
<td>Marjorie B. Barscz</td>
</tr>
<tr>
<td>72-C-760</td>
<td>Development of Materials to Effectively Present a Computer Assisted Programming of Numerically Controlled Machine Tools to Vocational High School Students</td>
<td>Alan S. Bailey</td>
</tr>
<tr>
<td>72-C-765</td>
<td>The Development of a Student Centered Vocational Guidance Program for Eleventh and Twelfth Grades in Tompkins-Cortland Counties</td>
<td>Richard D. Werner</td>
</tr>
<tr>
<td>72-C-772</td>
<td>Development of Inter-Disciplinary Occupational Curriculum for Occupational Learning Center Program</td>
<td>Vincent F. Brennan</td>
</tr>
<tr>
<td>72-C-773</td>
<td>Survey of Employment Opportunities and Changing Labor Needs for the Educable Mentally Retarded in Chautauqua County</td>
<td>James F. Mangano</td>
</tr>
<tr>
<td>VEA NUMBER</td>
<td>TITLE</td>
<td>INVESTIGATOR</td>
</tr>
<tr>
<td>------------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>72-C-774</td>
<td>Cooperative Development of Relevant Academic Curriculums for High School Vocational Students</td>
<td>Merle E. Maxson</td>
</tr>
<tr>
<td>72-C-778</td>
<td>Development of an Auto-Tutorial Developmental Reading Program for the Occupational Area of Business Technology</td>
<td>M. D. Glock</td>
</tr>
<tr>
<td>72-C-779</td>
<td>The Improvement of Motivational &quot;Success Consciousness&quot; on the Part of Occupational Students Through the Use of the Commercially Prepared Instructional Package, Zoommm</td>
<td>Edward A. Wolkenstein</td>
</tr>
<tr>
<td>72-C-782</td>
<td>Teaching Occupational Subjects to the Urban Socio-Economic Disadvantaged: An Investigation Necessary for the Development of Pragmatic Techniques</td>
<td>John E. Roberts</td>
</tr>
<tr>
<td>72-C-783</td>
<td>Development of an Occupational Orientation &quot;Package&quot; for Pupils, Staff and Parents at Grades 7, 8, 9</td>
<td>Warren G. Perkins</td>
</tr>
<tr>
<td>72-C-790</td>
<td>Planning Occupational Education for the Changing Needs of a Community Through System Dynamics</td>
<td>Ramesh Gaonkar</td>
</tr>
<tr>
<td>72-C-958</td>
<td>Study of Various Strategies To Provide Practical Nurse Graduates Entry into the Second Year of a 2-Year Associate Degree Nursing Program</td>
<td>Marian E. Lappin</td>
</tr>
<tr>
<td>72-C-1001</td>
<td>Development of an Instructional Resource Stanley Hoyt Counseling Package for Junior High School Students</td>
<td></td>
</tr>
</tbody>
</table>
Project Title: Special Orientation and Counseling for Prospective Students in BOCES Vocational Schools*

Principal Investigators: Muriel R. Manus
Jay Waxenberg
Robert Frank

Address: Great Neck Public Schools
345 Lakeville Road
Great Neck, N.Y. 11020

Telephone: 516/482-8650

Sponsoring Agency: Great Neck Public Schools
Total Funding: $3,000

The objectives of the project were to 1) help local students, new to the BOCES experience through individualized occupational counseling, understand 12, or more fields of work; 2) assist the BOCES student to understand, define, and explain his role as an employee in a variety of occupations; 3) help the student to define his own strengths and interests in the field of work; 4) help the new BOCES student to understand relationships between BOCES schools and centers and the Great Neck Public Schools.

A special orientation and counseling program was set up for a 2-month period (May-June 1972). The purpose of the program was to expose the entering student (N=39, 23 males, 16 females) to the world of work and to help him to define his role as an employee. The vocational counselor also helped the entering student recognize his strength and weaknesses as revealed through vocational testing. The entering student also met with various BOCES teachers and observed BOCES classes in operation.

The opportunity for guidance counselors to refer appropriate students to a special Occupational Education Counselor, whose sole focus was occupational education, proved to be one that was readily accepted. Although more of the ninth grade (junior high school) students were referred than senior high school students, the number of referrals and subsequent counseling sessions indicated a general acceptance of the occupational education counselor concept by the regular guidance staff.

In addition, field trips to BOCES Centers proved to be excellent learning experiences for the students. Response of students through questionnaires indicate one-third of the students were sufficiently motivated by additional exposure to make different course choices at the BOCES Centers. Parent meetings, an integral part of the project, attended by an average of 15 parents at each meeting, were highly successful. Specific information was offered to parents at these meetings in addition to helping the parent to understand the choices the student will make for himself in the work field.

The project can be easily integrated into many school systems and programs. Future recommendations would include plans for a full semester of a multioccupational course in order to extend the career orientation for students.

*More information and copies of the final report may be obtained by contacting Jay Waxenberg or Robert Frank.
MINI-GRANT 72-C-728

Project Title: Development of a Demonstration Program for Occupationally Based Language Arts and Social Sciences Instruction

Principal Investigator: Douglas Houck

Address: Franklinville Central School
31 N. Main Street
Franklinville, N.Y. 14737

Telephone: 716/676-5700

Sponsoring Agency: Franklinville Central School

Total Funding: $2,825

The primary purpose of the project was the development and implementation of an educational system which would meet the needs of high school students participating in occupational education programs at the Cattaraugus County BOCES.

An educational needs assessment was undertaken on all 9th, 10th, and 11th grade students enrolled in the Franklinville Central School during the 1971-72 school year. The assessment indicated the following program discrepancy: 60 percent of the enrolled students were oriented toward immediate entry into the world of work upon graduation from high school and would profit from participation in programs of vocational education, while only 6 percent of the students were enrolled in such programs at the time of the assessment. Additional information indicated that the high dropout rate (27%) of the high school students enrolled in vocational education programs was directly related to problems derived from the student's participation in the traditional home school academic programs.

A curriculum design committee composed of secondary teachers and administrators reviewed the existing program and developed modified home school language arts and social studies programs built around perceived occupational aspirations and needs. The resulting modified mini-course program was implemented during the 1972-73 school year. At the end of the first semester of operation 20 percent of the students enrolled in grades 9 - 12 were enrolled in occupational programs and the participant dropout rate had been reduced to a level of less than 14 percent.

Modifications are now being implemented in the home school mathematics and science programs, and the addition of an occupational services counselor is now planned.

*For copies of the curriculum and information relating to the implementation, contact the principal investigator.
Project Title: Development of a Pilot Supervisory Program for Improving Instruction by Basing Teaching Strategy on Statements of Behavioral Objectives

Principal Investigator: Drhu H. Meeker
Address: Schuyler-Chemung-Tioga BOCES
431 Philo Road
Elmira, N.Y. 14903
Telephone: 607/739-3581

Sponsoring Agency: Schuyler-Chemung-Tioga BOCES
Total Funding: $1,000

The primary purpose of this project was the improvement of instruction in the Schuyler-Chemung-Tioga BOCES through the teacher's use of behavioral objectives.

Twelve teachers attended 45 hours of inservice training. The objectives of this inservice training were 1) to understand the principles of Criterion Referenced Instruction and 2) to apply these principles to teaching situations. Instruction included discussions, programmed textbooks, overhead projector with tapes, and criterion referenced tests. The teachers being instructed also wrote behavioral objectives for their own teaching purposes and had their objectives critiqued by the other students in the class.

The goal of the program was improved instruction resulting in increased pupil achievement. There was too short a time before the end of the 1972-73 school year for comparisons of pupil performances between teachers in the inservice program and not in the inservice program. However, teachers in the inservice program were able to understand the principles of Criterion Referenced Instruction. They could change "lesson plan" objectives to behavioral objectives for lessons and for testing student achievement on the basis of stated terminal objectives. Teachers who tried the system reported increased student interest in activity planning, followed by increased achievement.

* For further information contact the principal investigator.
MINI-GRANT 72-C-735

Project Title: What Value an Audio Module for Health Science Careers Personnel?*

Principal Investigator: Robert C. Kochersberger
Address: Jamestown Community College
525 Falconer Street
Jamestown, N.Y. 14701

Sponsoring Agency: Jamestown Community College
Total Funding: $2,500

The primary objective of this project was the installation and formal classroom use of the Telelecture Network (TLN) of the Lakes Area Regional Medical Program by the Health Science Careers Faculty and the nursing students of the Jamestown Community College.

The TLN was installed, with considerable technical difficulty, in September 1972. Unexpected scheduling problems accounted for the fact that the TLN was not used in a formal classroom situation by the Jamestown Community College nursing students. The TLN was used, informally, and with dialogue between the lecturer and the audience, by individuals from the following organizations: 1) Mental Health Clinic of Chautauqua County; 2) Chautauqua County Extension Service Association, Home Economics Division; 3) Fenton Park Nursing Home; 4) Jamestown Community College nursing class; 5) Jamestown Community College health science faculty. Questionnaires and evaluation forms provided by the TLN and personal interviews were employed to determine the effectiveness of this medium as an instructional instrument.

The subjective results indicated that the TLN was not as effective as conventional classroom instruction for the community college students. Adult participants rated the TLN outlet quite high as an instructional instrument, and presented numerous ideas as to how this medium could be more effectively used by community groups and individuals. Finally, it should be noted that TLN program scheduling is not flexible. Thus, if TLN is to be used as an instructional device, the class scheduling must be flexible. This was not the case at Jamestown Community College due to nurse practicum schedules. Without this flexibility the dialogue, a key element to the instructional effectiveness of TLN, is lost.

As a result of this work, it is now planned to continue the facility as a community resource for future continuing education programs for teachers, registered nurses, practical nurses, social workers, nursing home staffs, and mental health facilities personnel, as well as Jamestown Community College Students.

*More information and a summary of the questionnaire results may be obtained from the principal investigator.
The purpose of this symposium was to determine the best uses for the 30-inch reflecting telescope recently donated to Jamestown Community College by Marshal S. Hartz. In order to implement the full utilization of the telescope, it was necessary to identify career programs that should be instituted at Jamestown Community College, to explore cooperative arrangements with nearby colleges in New York and Pennsylvania, to determine ways to open the telescope to the community at large and to determine possible productive astronomical uses for a telescope of this size.

An advisory symposium was held on July 17-18, 1972, to answer these questions. Participating in the symposium were astronomers from several observatories, representatives from NASA and NSF, experts from several optics industries and astronomers from six nearby colleges and universities. On the first day of the symposium, the participants were given an orientation to the goals, faculty, and facilities of Jamestown Community College and to the Martz Observatory. On the second day, they presented their views and advice in several panel discussions.

It was recommended that no new programs be added since Jamestown Community College already has several strong technical career programs. Instead, additions to these currently existing programs should be made. Particular emphasis was placed on students gaining "hands on" experience by designing auxiliary equipment as special projects for technical courses.

The representatives from local colleges expressed a strong interest in forming a consortium for research with the Martz Telescope. An advisory council of representative astronomers could administer the use of the telescope. Twelve possible useful areas of research were discussed.

It was recommended that the Martz Observatory be open to the public but only on a limited basis in order not to tie up too much telescope time. The consortium advisory council could be responsible for public lectures and shows.

* More information is available from Randy R. Ross, assistant professor of physics, Jamestown Community College.
Project Title: A Comparative Analysis of the Impact of High School and Junior College Preparation on the Vocational Success of Graduates of Secretarial Programs With Implications for Career Guidance and Curriculum Revision*

Principal Investigator: Adelord Blanchard
Address: Agricultural and Technical College
Telephone: 315/386-7500

Sponsoring Agency: Agricultural and Technical College at Canton
Total Funding: $2,500

The primary purpose of this study was to distinguish between the high school and junior college secretarial graduates in terms of the following 10 career variables: 1) level of beginning and present income, 2) level of beginning and present job title, 3) incidence of employment in the area of preparation, 4) job satisfaction, 5) employer satisfaction, 6) stability of employment, 7) major duties performed, 8) promotional opportunities, 9) types of firms employing graduates, and 10) geographic mobility. In addition, the study was designed to make comparisons in terms of employer satisfaction between high school graduates with a secretarial education who went directly into employment and those who entered a junior college for secretarial training; between graduates who had both a high school and junior college secretarial education and those who had only a junior college secretarial education; between high school graduates with A and B final grade averages and those with C and D final grade averages; and between junior college graduates with A and B averages and those with a C average.

The data for the study were obtained from the secretarial graduates of 19 high schools and two junior colleges who were employed in office occupations between May 15, 1972, and July 31, 1972, and their employers. Responses were received from 150 high school graduates, 151 junior college graduates, and 275 employers. The instruments used to collect the data were a graduate questionnaire/interview guide, employer questionnaire/interview guide, the Goertzel Job Scale, and the Job Description Index. Chi square and t test analysis at the .05 level of significance were used to determine if significant differences existed between the graduates in the variables studied.

Significant differences were found in the comparison made on the basis of 1) level of beginning and present income; 2) level of beginning and present job title; 3) incidence of employment in office occupations; 4) geographic mobility; 5) type of firm employing graduates; and 6) employer satisfaction in terms of graduates who earned A and B averages and those who earned C and D averages in high school. No significant differences were found in the comparisons made regarding promotional opportunities, stability of employment, job satisfaction, major duties performed, and employer satisfaction.

* Copies of the questionnaires and tabled results may be obtained by contacting the principal investigator.
Project Title: Development of a Curriculum for Activities Assistants for Use in a BOCES Program*

Principal Investigator: Marjorie B. Barscz

Address: Herkimer County BOCES
100 E. Main Street
Mohawk, N.Y. 13407

Telephone: 315/866-1500

Sponsoring Agency: Herkimer County BOCES

Total Funding: $2,925

The primary purpose of this project was the development of an objectives based curriculum to be used in the Herkimer County BOCES for training activities assistants.

Activities assistants will be employees having a background as a nurse aide, who with further academic study and supervised clinical experience, will be able to work as an assistant to an activities leader. The terms "activities assistant," "activities aide," or "menthal hygiene assistant therapy aide" may be used interchangeably. The employees will be able to work with any age patient or resident.

A survey to determine the extent of needs for activities assistants was made of surrounding social agencies. These agencies included nursing homes, retirement homes, and hospitals. A total of 92 questionnaires were sent. Of this total, 48 percent responded. On the basis of the responses, a meeting of interested persons acting as an advisory committee was held. They suggested the knowledge and training necessary for an activities assistant. A 2-day workshop was held to develop the curriculum. Members of this workshop included an associate from the Department of Health Occupation Education, a faculty member of Erie Community College, an occupational therapist from Utica Psychiatric Hospital, a recreational therapist from Marcy Hospital, and a activities leaders from two nursing homes in the Utica area.

A curriculum outline was formed by the workshop group. Topics included Philosophy, Ethics, Legal Aspects; Growth and Development; Infants-Adolescents; Activities, Infants-Preadolescence; Growth and Development; Early Adulthood, Middle Age, Aged; Adult and Geriatric Abnormal Syndromes; Individual and Group Approaches; Recreation and Activities; Observing and Recording; Clinical Experience.

Content for a curriculum has been developed. The content includes objectives, suggested learning activities, and suggestions for evaluation of the learning activities. It is planned to develop an activities assistant program in the local BOCES school.

*Materials will be available for 2 years from the principal investigator.
MINI-GRANT 72-C-760

Project Title: Development of Materials to Effectively Present a Computer Assisted Programming of Numerically Controlled Machine Tools to Vocational High School Students*

Principal Investigator: Alan S. Bailey
Address: McKee Voc. and Tech. H.S.
290 St. Marks Place
Staten Island, N.Y. 10301

Telephone: 212/273-4000

Sponsoring Agency: Board of Education of the City of New York
Total Funding: $3,100

The primary objective of this study was to develop materials to allow vocational high school students to use several types of computers in preparation of tapes to operate numerically controlled machine tools.

A Wang Model 700B with typewriter output was rented and was the basic mini-computer used. Also used were a Compucorp Model 025 mini-computer as well as IBM 1130 and 360/30 full-size computers. A limited amount of software was developed to assist in preparation of data to operate numerically controlled machine tools.

As a result, students were able to run more programs, and more difficult programs than was possible in previous school terms without computer assistance.

Numerical tool manufacturers have updated their equipment and are now offering relatively low priced equipment with built-in mini-computers that do much of the work automatically that was carried out in this study with separate computers. It is anticipated that further work will be done by the manufacturers in this area.

*For further information contact the principal investigator.
Project Title: The Development of a Student Centered Vocational Guidance Program for Eleventh and Twelfth Grades in Tompkins-Cortland Counties*

Principal Investigator: Richard D. Werner
Address: Dryden Central School
Telephone: 607/844-8694
Dryden, N.Y. 13053

Sponsoring Agency: Dryden Central School
Total Funding: $2,550

The objectives of this program were to 1) provide vocational students with information relating to labor trends in the Tompkins-Cortland (New York) Counties labor market; 2) develop a classroom program which will enable vocational students to evaluate their abilities, using a profile inventory; 3) provide information relating to the individual's job market-ability; 4) provide student participation in regularly scheduled vocational guidance classes; 5) develop a brochure which will be presented to the two-county area businesses, employment agencies, and industries identifying the abilities and skills of vocational students interested in employment in specific positions or occupations within the two-county area.

Data on job descriptions, requirements, and benefits were collected from officials of agencies, such as the Employers Association, from professional societies, unions, and chambers of commerce. The data have been compiled in a student brochure to be used in counseling vocational students. A listing of prospective speakers on specific career areas has been prepared for teacher use. Vocational teaching units have been developed that inevitably will prepare students for the world of work. The guidance office plans to continue the preparation of occupational units that can be implemented in classroom instruction aimed at educating students on the labor market.

* Contact the principal investigator for more information and materials.
MINI-GRANT 72-C-772

Project Title: Development of Inter-Disciplinary Occupational Curriculum for Occupational Learning Center Program*

Principal Investigator: Vincent F. Brennan

Address: Central Technical High School
717 South Warren Street
Syracuse, N.Y. 13202

Sponsoring Agency: Syracuse City School District

Total Funding: $3,000

In September of 1970 a new educational program was begun in Syracuse, New York, to serve those youth who could not find relevance and interest in the regular secondary school program. The intent of this program was to combine individualized occupationally oriented instruction with work experience and vocational training. The success of this program is dependent on the development of occupationally oriented curriculum materials which are inter-disciplinary in their approach to basic skills and which also supply vocational information. In 1971 six instructional units were developed using mini-grant money.

The objective of the 1972 mini-grant was to continue the development of these instructional materials and write learning units which would provide vocational guidance, an understanding of the world of work, and occupational information, use the inter-disciplinary approach in the learning of basic skills in communication, computation, and personal developments.

Unit titles developed under the 1972 project were 1) Career Education, 2) Job Families, 3) Resources in the Community for Job Training, 4) Interests, Aptitudes, and Abilities, 5) You, Your Employer and Co-Workers, 6) Human Development, 7) Labor, 8) Occupations in Government, 9) Welfare, 10) Consumer Education, 11) Banking. A teacher's manual was also developed for these 11 units and the five units developed in 1971: 1) Work, 2) Job Seeking Skills, 3) Taxes, 4) Law, and 5) Insurance.

These 15 curriculum units are being used in the four Syracuse City School District Occupational Learning Centers. An informal feedback has been encouraged from two sources: the Occupational Learning Center Students. Reactions, suggestions, criticisms, and comments will be solicited and used where appropriate to make changes in these curriculum materials.

* For more information and copies of the curriculum, contact the principal investigator.
The primary objectives of this project were to identify and list employers indicating a willingness to hire retarded students and identify and analyze the types of jobs the retarded could perform.

Two hundred introductory letters were sent to prospective employers in the county, and 184 personal contacts were then made to the letter recipients. Sixteen letters were returned by the Post Office. Of the 184 personal contacts, 100 percent indicated a willingness to hire retarded, and 90 percent indicated they had never been contacted before; however, 10 employers had jobs in highly skilled areas only, 13 were one-man operations only, and 8 were short seasonal jobs which we determined not to be feasible for retarded students to engage in. One hundred fifty-three potential employers and jobs were identified and analyzed as to: 1) competencies necessary to perform tasks, 2) dress requirements, 3) qualifications, 4) working hours and conditions, 5) remuneration and benefits, 6) transportation needs, 7) advancement, and 8) feasibility of employment for retarded students.

Results of the survey have both short- and long-range implications. As a direct result of this survey seven students have been placed in work-experience positions and are receiving on-the-job training experiences. The job analysis will be utilized in planning and implementing changes in our curriculum for the mentally retarded. The work experience coordinators will be continually following up leads, and by means of the introductory letter and personal contacts, will develop a reservoir of potential job placements. Promotion of public awareness of the Chautauqua County BOCES program and its goals of helping the retarded through our public speaking engagements to civic and church organizations is being continued.

It is most important to note that jobs for the retarded are available if the personal contacts are made to identify employers, identify the jobs, and promote the positive effects of hiring the retarded.

* More information and copies of the questionnaire may be obtained from the principal investigator.
The purpose of the project was to develop and implement a ninth-grade mathematics curriculum so that students entering the Seaway Area Technology Center will have the academic skills necessary for success in their chosen occupational area of study.

Six teachers, three from home schools serviced by the Seaway Technology Center and three from the center itself, developed ninth-grade mathematics curriculum. All six teachers selected the main topics of the curriculum. The three vocational teachers developed the practical applications and the three home school teachers developed the subject matter of the curriculum.

A ninth-grade mathematics curriculum was developed and has been sent to the 18 home schools serviced by the Seaway Area Technology Center.

Evaluative questionnaires have been prepared for students and teachers. These questionnaires have been sent out and will be returned and analyzed in June 1973. Further evaluation of the effectiveness of this curriculum will be made during the school year of 1974-75 when the ninth graders currently being taught the developed curriculum come to the Seaway Technology Center.

*Copies of the questionnaire and curriculum may be obtained by contacting the principal investigator.
Development of an Auto-Tutorial Developmental Reading Program for the Occupational Area of Business Technology

Principal Investigator: M. D. Glock
Address: 217 Stone Hall
Telephone: 607/256-5423
Cornell University
Ithaca, N.Y. 14850

Sponsoring Agency: Institute for Research & Development in Occupational Education, Department of Education, NYS College of Agriculture and Life Sciences
Total Funding: $3,000

The purpose of the project was to design and test a developmental reading program focusing on comprehension and technical vocabulary for students in business technology. The program developed uses an inexpensive tape recorder and printed workbook type materials.

Program development involved students and facilities at the reading laboratory of Tompkins-Cortland Community College. Specific content of the program was validated by consensus of business instructors and textbooks content. Methodology for improvement of reading was validated through a literature search and consensus of reading laboratory directors. No unequivocal empirical data were available to justify specific components of a developmental reading program. Therefore, the best judgment of specialists in the field was assumed to be the most valid basis of instruction available at the time this reading program was developed.

Individual students seeking help in the reading laboratory were used to develop and initially field test the materials. Arrangements for further field testing of the materials have been made at the State University College at Delhi, New York. Other 2-year colleges are being contacted to extend field trials.

Preliminary results show that using material from a specific subject matter field contributes greatly to motivation in a developmental reading program. The reading program for business technology may be used as a prototype to develop reading programs for students in other subject areas.

*For further information and copies of the reading program, contact John Wilcox, director, Institute for Research and Development in Occupational Education, 19 Stone Hall, Cornell University, Ithaca, N.Y. 14850.
MINI-GRANT 72-C-779

Project Title: The Improvement of Motivational "Success Consciousness" on the Part of Occupational Students through the Use of the Commercially Prepared Instructional Package, Zzoommm*

Principal Investigator: Edward A. Wolkenstein
Address: BOCES #1, Erie County
455 Cayuga Road
Cheektowaga, N.Y. 14225
Telephone: 716/634-6800

Sponsoring Agency: Harkness Center
BOCES #1, Erie County
Total Funding: $3,000

The aim of the project was the introduction into the curriculum of the occupationally oriented high school, a detailed, systematic, and sequential course of study for stimulating intrinsic motivational growth. Whereas the currently predominant thrust of motivational stimulation has been based on extrinsic rewards and punishment for classroom management, the Zzoommm program stresses the intrinsic qualities of self-arousal, self-understanding, positive self-image, realistic goal setting, and creative thinking to achieve these identical objectives.

Subjects consisted of 70 eleventh-grade students, boys and girls, enrolled in a variety of occupational training areas representing 14 school districts of northern Erie County. Subjects were in four categories--two groups were experimental and two were controls; one group of control students were given placebo treatment and the other, as individuals, received no special treatment. All instructional materials were provided by Zzoommm which included three paperbacks, disc records, cassette tapes, and manuals. The experimental and control groups met each day for 45 minutes for 12 weeks. All subjects were given a pretest in early April and posttest in June 1972. On criteria of age, sex, and grade-point average it was possible to match only 11 pairs of students. The raw scores of the pretest and posttest for these 11 pairs of students were subjected to an analysis of different treatment.

The results of the study and analysis indicate 1) that high school students in an occupational setting are interested in learning about intrinsic motivational concepts and techniques; 2) that it was too early to tell what significant effects the instruction had, if any (the students will be tested again in June 1973); 3) the materials of the program are excellent for working young adults but have to be seriously revised for full-time high school students; 4) the concepts underlying the program are excellent.

*For more information contact the principal investigator.
MINI-GRANT 72-C-782

Project Title: Teaching Occupational Subjects to the Urban Socio-Economic Disadvantaged: An Investigation Necessary for the Development of Pragmatic Techniques*

Principal Investigator: John E. Roberts
Address: State University College
1300 Elmwood Avenue
Cuadell Hall 109
Buffalo, N.Y. 14222

Sponsoring Agency: State University College at Buffalo
Total Funding: $2,542.40

The purpose of the study was the identification of instructional techniques found to be most effective and most used by the vocational high school teachers in teaching occupational subjects to socio-economic disadvantaged students in the city of Buffalo, New York. The findings were to have been used in designing an inservice training course for these vocational education teachers.

Questionnaires were sent to 147 vocational high school teachers in the six vocational high schools in the city of Buffalo, New York. Of this number, 57 percent were returned by teachers in four of the six vocational high schools. The 41-item questionnaire was divided into three parts: 1) six demographic items; 2) 24 attitudinal (relating to the use of instructional hardware) items rated on a five-point scale, and 3) nine items concerned with availability of instructional hardware.

An inter-item correlation analysis of the response data was performed on a 6400 CDC using the Statistical Package for Social Scientists (SPSS) from the University of Chicago.

The data collected in this study were not sufficient to make conclusions regarding the identification of effective instructional techniques in teaching occupational subjects to the socio-economic disadvantaged students in the city of Buffalo.

*Copies of the questionnaire may be obtained from the principal investigator.
MINI-GRANT 72-C-783

Project Title: Development of an Occupational Orientation "Package" for Pupils, Staff and Parents at Grades 7, 8, 9*

Principal Investigators:  
Warren Perkins  
James Hennighan  
Calvin West

Address:  
Fayetteville-Manlius Senior High School  
Manlius, N.Y. 13104

Telephone:  
315/682-6126

Sponsoring Agency:  
Central School District #1, Manlius

Total Funding:  
$3,000

The purpose of the project was to plan and develop an occupational orientation "package" for junior high school students, staff, and parents of a suburban school district having a total enrollment of 5,500 pupils. The pupils come from a higher than average socioeconomic background.

A survey was made of the 1966 and the 1969 graduates of the Manlius school system to determine how their school experiences related to present life circumstances. The results of the survey were used to establish a first approximation of the criteria for the content and packaging of an occupational orientation "package." Using the criteria, ERIC documents published between 1967 and 1972 and commercially prepared materials were assessed for content and techniques in using occupational orientation packages. Local industries were observed to obtain more content for the occupational orientation package.

The result was the preparation of an occupational orientation package unique to the needs of the junior high school students of the Manlius school system. The package consists of several elements including a simulation game, newsletter, career information center model, guidelines for field visitations, guidelines for parents as resource persons, commercial and locally prepared information kits, suggested inservice outlines, and resource guides for staff development.

Some elements of the package are being developed for field testing in Spring 1973; others by September 1973. A system will be established to monitor developments in career education and to update and modify information, materials, and approaches in the package. A steering committee will be established to further study implication of career education on a districtwide K-12 basis.

*For more information, copies of the questionnaire, ERIC document list, and description of/or the orientation package, contact the principal investigator.
The project concerned itself with the planning of occupational education for the changing needs of a community through system dynamics. The needs of a growing dynamic community (or state) in an industrial society change rapidly, and educational institutions should be able to respond to these changes within a short period of time. The question of how the educational system detects such changes and revises its plans accordingly may be answered by applying system dynamics. System dynamics is a methodology developed by J. W. Forrester to gain insights into problems of complex systems, such as urban systems, and market growth; it deals with closed loop systems composed of three factors, 1) level, 2) decisions or rates, and 3) information. The educational system can be categorized as a multi-loop nonlinear feedback system within a system dynamics framework.

The purposes of the study were, 1) to study the feasibility of applying system dynamics to the planning of occupational education programs such as manufacturing technologies at regional levels; and 2) to devise a computer simulation model representing the dynamic interaction between the occupational education sector and the industrial sector at the regional level.

A simulation model has been developed. The model includes the following: 1) population and student sectors; 2) technology admissions and its dependence on factors such as job opportunities, social status, and program difficulties; 3) the manufacturing sector and its growth in relation to tax rates, wages, and productivity. The computer program is written in a special simulation language, "Dynamo."

The model was applied to the Syracuse region. The computer plots showed the supply and demand of technology graduates from 1960 to 1980. The results of this application indicate that there will be a shortage of factory technicians in the Syracuse area in the next decade.

The model needs to be validated and refined for specific policy decisions. After the validation, the model can be used to study various policy decisions.

* More information and copies of the final report may be obtained by contacting the principal investigator.
MINI-GRANT 72-C-958

Project Title: Study of Various Strategies To Provide Practical Nurse Graduates Entry Into the Second Year of a 2-year Associate Degree Nursing Program*

Principal Investigator: Marian E. Lappin
Address: 30 Charles Street
Jamestown, N.Y. 14701

Sponsoring Agency: Enlarged City School District of the City of Jamestown, N.Y.

Total Funding: $3,000

The purposes of the study were 1) to investigate various strategies that would allow the Jamestown School of Practical Nursing graduate to move into the second year of the associate degree nursing program at the Jamestown Community College; 2) to select that strategy which best meets the criteria of the faculty and administration of both schools; 3) to begin implementation of the selected strategy; and 4) to develop a model to facilitate educational mobility within the nursing profession.

Under the direction of a consultant, several workshops were held to familiarize faculty members of both institutions with the philosophy and objective of each program. The workshops led to a better understanding of each program by each faculty.

The strategy finally selected for movement of the Jamestown School of Practical Nursing graduate to the Jamestown Community College nursing program was a selection by the graduate of one or more of the following three options: 1) entry into the program through the College Proficiency Examination (CPE); 2) Challenge Examination for credit in a particular course; 3) selection of a course(s) at the Jamestown Community College. The result of selecting any combination of these strategies is a savings of up to 6 months study for the student (i.e., a graduate of the Jamestown School of Practical Nursing may finish the Jamestown Community College in 1.5 years rather than 2.0 years time).

Several by-products also resulted from this study: 1) goals representing terminal behaviors desired of the graduate at the end of the practical nursing program; 2) plan to develop enabling objectives leading to the terminal behaviors; 3) a serious questioning by the Jamestown School of Practical Nursing of their philosophies and requirements of students--e.g. what do they require a student to do and why do they require it, which lead to statements of terminal behaviors; 3) plans to collect graduate's achievement data on the College Proficiency Examination and Challenge Examination.

* For more information and copies of terminal behaviors, contact the principal investigator.
MINI-GRANT 72-C-1001

Project Title: Development of an Instructional Resource Counseling Package for Junior High School Students*

Principal Investigator: Stanley Hoyt
Address: Madison-Oneida County BOCES
Verona, N.Y. 13478
Telephone: 315/363-8000

Sponsoring Agency: Madison-Oneida County BOCES
Total Funding: $3,000

The purpose of the project was the development of a counseling package of resources that included information in the occupational areas of business, industry, and health and home economics.

Junior high schools home school representatives and the Madison-Oneida County BOCES faculty met and identified course offerings at their respective schools. The content and format of the instructional counseling package were derived from this group.

A package consisting of 247 slides, narrated and divided into three carousels, was developed. The slides are of "students in training" and are thematically related to slides of "employees on the job" in related occupations. These pictures had been taken at each of the home schools, at the BOCES center, and of employees in the Central New York State region.

The package is being distributed to the junior high schools serviced by the Madison-Oneida County BOCES Center. It will be evaluated by counselors and students in these home schools.

* For more information contact the principal investigator.
APPENDIX A

INTRODUCTION

Funds have been allocated for a mini-grant program for Fiscal Year 1972. The mini-grant program provides funding for small scale occupational education research projects. Each mini-grant project budget is limited to a maximum of $3,000. The project period will be from January 1, 1972 to August 31, 1972.*

The main intent of this program is to allow individuals at local educational agencies the opportunity to solve some of the persistent and aggravating problems relating to occupational education.

ALL MINI-GRANT PROPOSALS MUST BE SUBMITTED

BY NOVEMBER 29, 1971

Submit six copies to:

Chief, Bureau of Occupational Education Research
New York State Education Department
Albany, New York 12224

LIMITATIONS

To qualify for a mini-grant, project proposals must meet three basic requirements:

1. The total investment by the Bureau of Occupational Education Research will be no more than $3,000.

2. The project monies must be encumbered by June 30, 1972.

3. The project must be scheduled for completion by August 31, 1972.*

ELIGIBILITY

Mini-grants may be awarded to two-year or four-year colleges, universities, boards of cooperative educational services, regional centers, local educational agencies, or to other public, nonprofit agencies and organizations. Groups or individuals may also be awarded mini-grants if a proposal is submitted under institutional or organizational sponsorship. In all cases, individual or group

projects must be funded through the sponsoring agency.

PROJECT PRIORITIES

It is the intent of this program to allow the investigators to determine priority areas in accordance with locally assessed needs. This will allow for the development of relevant projects which are more likely to have a significant, positive effect at the local level. The only restriction is that the project must deal with some aspect of occupational education. Projects which were funded under the mini-grant program for Fiscal Year 1971 are listed in Appendix A.

CRITERIA FOR EVALUATING PROPOSALS

Generally, proposals are evaluated and recommended for approval according to these criteria:

1. Educational significance
2. Soundness of design, procedure, or operational plan
3. Adequacy of personnel and facilities
4. Economic efficiency

Educational significance is not determined by the area of investigation such as exceptional children, disadvantaged, or inner-city schools. Rather, the proposal is judged on its own merits, within its own discipline or problem area. Furthermore, projects designed to offer solutions to practical or teacher-oriented problems will be given primary consideration.
The following format should be followed in submitting mini-grant proposals to the Bureau of Occupational Education Research:

Appendix B should be used for the cover page.

**Cover page** - Nothing precedes this page. It should contain the following information:

1. **Heading** (proposal for ____________ )
2. **Title** (be concise; avoid obscure jargon)
3. **Principal investigator**
4. **Sponsor** (agency)
5. **Approved by** (district superintendent, director, etc.) (fiscally responsible person)
6. **Duration of project** (from - to)
7. **Funds requested**
8. **Date of submission**

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**SAMPLE**

**MINI-GRA TRANT PROPOSAL - Fiscal Year 1972**

Submitted to the Bureau of Occupational Education Research

**TITLE:** Development of an Occupational Awareness Package for Elementary School Children

**PRINCIPAL INVESTIGATOR:** John Jones, Director of Elementary Education

**INSTITUTION:** West Lake Elementary School
1529 Skyline Boulevard
West Lake, New York 12345
518/555-8901

**APPROVED BY:** Sam Smith, Superintendent of Schools
West Lake, New York

**DURATION OF PROJECT:** January 1, 1972 to August 31, 1972 *

**FUNDS REQUESTED:** $2,500

**DATE OF SUBMISSION:** December 20, 1971

BODY OF PROPOSAL

1. **Problem** - As briefly as possible state the problem area to be investigated. It should be remembered that the purpose and/or aims of the project may differ from the problem. An example of this is the project shown on the sample cover page: "Development of an Occupational Awareness Package for Elementary School Children." The actual problem is that elementary students are occupationally unaware.

2. **Objective** - The aim or purpose of the project should be the solution or study of the problem stated above. When applicable, the objective(s) should be stated in behavioral terms.

3. **Literature review** - Briefly, present a background analysis of research related to the topic. Cite relevant studies found in ERIC or any other educational resource.

   Appendix C contains a list of institutions which provide access to an ERIC collection.

4. **Procedure** - Describe specifically the methods to be used in attaining the objective stated above. If data are to be gathered or instruments utilized, it should be noted in this section. All questionnaires must be approved by the Bureau of Occupational Education Research prior to field usage.

5. **Evaluation** - Briefly state how you intend to evaluate the program or procedures.

6. **Personnel** - List name, title, and a brief statement of the educational background and occupational experience of the principal investigator who will be directly in charge of the project.

7. **Budget** - On the budget summary provided, Appendix D, estimate the cost of the proposed project.
PROJECT REPORTS

1. Progress reports - Due to the short period of time involved, no progress reports will be required. The project will, however, be monitored and may be visited by personnel of the Bureau of Occupational Education Research.

2. Final report - Principal investigators may desire to prepare a full-length, detailed final report for local district use. However, the final report requirement may be met by submitting the "Mini-Grant Final Report" form (Appendix E)*.

NOTE - If a project results in the development of materials or curriculum, two copies of those materials must accompany the final report form.

It is anticipated that all mini-grant final reports will be published as one document sometime after November 1972.

FUNDING PROCEDURE

Upon approval of a mini-grant proposal, the appropriate budget forms, VEA 100 and FA10, and an approval letter explaining procedures will be forwarded to you.

You may expect 50 percent of the approved budget when the project is initiated. The remaining 50 percent will be forwarded upon receipt of the final report.

Any question relating to the mini-grant program may be directed to:

Dr. Louis A. Cohen, Chief
Bureau of Occupational Education Research
Room 468 EBA
State Education Department
Albany, New York 12224

Phone: 518/474-6386

*Appendix C of this report.
APPENDIX B

Mini-Grant Proposal Evaluation Sheet

Project Number ______
Reviewer ______
Total Score ______

A. Eligibility

1. Does the individual or institution qualify for a VEA Mini-Grant? Yes ______
   No ______

2. Is the total budget within the mini-grant limitation? Yes ______
   No ______

3. Is the principal investigator qualified to direct the project? Yes ______
   No ______

4. Are local facilities sufficient for supporting the project? Yes ______
   No ______

Procedure for Rating

Each proposal submitted will be rated on a scale of 1 (weak) to 3 (strong) in each of four categories. These categories are weighted and the total score a proposal receives is the weighted composite of the subscores received in each category. The category weight is an indication of its importance as a consideration, i.e., the higher the weight the more important the category. These weights for the Mini-Grant Programs are as follows:

Operational Promise .............. 3
Clarity .............................. 2
Soundness of Design .............. 3
Economic Efficiency .............. 2

Evaluate the proposal according to the criteria below by recording a rating of one, two, or three in the appropriate box for each item.

B. Operational Promise

1. Is the approach to the problem unique, and/or do this study's objectives represent a potential improvement upon previous research?
2. Does the project possess the potential for making a significant and positive impact on the instructional program? 

3. Will the program enhance the professional skills of the personnel involved? 

4. Is there evidence of a sufficient financial, administrative, and community interest to provide support for this program beyond the project period? 

5. Does the project indicate consideration of other areas as they relate to the broader concept of career education? 

C. Clarity 

1. Is the problem clearly defined? 

2. Are the objectives clearly stated and related to the problem? 

3. Is the procedure clearly delineated? 

4. Is the evaluation technique clearly stated? 

D. Soundness of Design 

1. Are the procedures for achieving the objectives appropriate and technically sound? 

2. Is there a formal means for gathering information related to the accomplishment of the project objectives? 

3. Are the parameters of the project environment defined? (Is there an indication as to what schools, groups, population, or specific samples are involved?) 

4. Does the overall project strategy present a logical flow from the statement of the problem to the evaluation of the results?
E. **Economic Efficiency**

1. Are the estimated costs reasonable and are the expenditures related specifically to the project procedures?

2. To what extent will the potential product(s) or procedure(s) resulting from the project be economically feasible in the general education content? (Strong programs would maintain or reduce present costs, while at the same time improving instruction.)

3. Is the project period realistic in terms of accomplishing stated project objectives?

4. To what extent does the district or other implementing agency contribute human, material, or financial resources?

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<th>Category</th>
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Comments:
APENDIX C
MINI-GRANT FINAL REPORT

PROJECT TITLE ________________________________

LOCATION (mailing address) ________________________________

CONTACT PERSON ________________________________ PHONE __________

PROJECT DATES ____________________________ to ____________________________

DESCRIPTORS (words which most adequately describe the area(s) with which this project deals. Utilize an ERIC Thesaurus if at all possible.)

__________________________

1. What problem did this project address itself to?

2. What were the specific project objectives? (Stated in behavioral terms)
3. Briefly describe the project in operation.

4. How was the project evaluated and what were the results?* (Relate specifically to the program objectives stated in #2.)

* NOTE: If this project resulted in the development of materials or curriculum, attach two copies of all materials produced.
5. Program costs

   Total program budget __________________

   Estimated cost per pupil (per year) ________

6. What plans have been made to continue all or any portion of the program? (If it has not been continued, why not?)

7. What efforts have you made or do you plan to undertake to disseminate the results of your project to other educators within your region?