DOCUMENT RESUME

ED 240 271 CE 038 054

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TITLE A Recap of the Sixth Nationwide Vocational Education Dissemination Conference: Disseminating for Tomorrow's Voc Ed. The Proceedings (Columbus, Ohio, November 15-17, 1983).
INSTITUTION Ohio State Univ., Columbus. National Center for Research in Vocational Education.
SPONS AGENCY Office of Vocational and Adult Education (ED), Washington, DC.
PUB DATE 84
CONTRACT 300-83-0016
NOTE 126p.; For related documents, see ED 215 148 and ED 224 998.
PUB TYPE Collected Works - Conference Proceedings (021) -- Viewpoints (120)

EDRS PRICE MF01/PC06 Plus Postage.
DESCRIPTORS Administrator Role; *Computer Oriented Programs; Delivery Systems; Educational Innovation; Educational Needs; *Educational Research; Educational Trends; Futures (of Society); *Information Dissemination; Information Utilization; Linking Agents; Microcomputers; Postsecondary Education; Program Descriptions; *Program Development; Program Implementation; Research and Development; Secondary Education; Teacher Role; Technological Advancement; *Vocational Education
IDENTIFIERS Vocational Education Dissemination Conference 1983

ABSTRACT

This document reviews the activities of a conference on "Disseminating for Tomorrow's Voc Ed." The conference featured tools, techniques, information, examples that can be used to promote good dissemination, use of research, and developmental results. Considerable emphasis at the conference was given to topics and activities related to microcomputer hardware and software applications for vocational education disseminators and change agents. Following the sequence of the conference agenda, approximately 70 brief summaries of small group workshops and large group sessions are reported. Appendix A contains extensive samples of handouts and materials mentioned in many of the summaries. Additionally, to encourage and facilitate continued dialogue and exchange of information as well as dissemination of resources and ideas, a list of all conference participants with contact information is provided in Appendix B. (KC)

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PROCEEDINGS

MBER 15-17, 1983

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- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program need and outcomes
- Providing information for national planning and policy
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs

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A RECAP OF THE SIXTH NATIONWIDE VOCATIONAL EDUCATION DISSEMINATION CONFERENCE

DISSEMINATING FOR TOMORROW'S VOC ED

NOVEMBER 15-17, 1983

Compiled by

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Judy Balogh

The National Center for Research in Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

1984

FUNDING INFORMATION

Project Title:	National Center for Research in Vocational Education, Dissemination and Utilization
Contract Number:	300830016
Project Number:	051MH30001
Act under Which Funds Administered:	Education Amendments of 1976, P.L. 94-482
Source of Contract:	Office of Vocational and Adult Education U.S. Department of Education Washington, D.C. 20202
Contractor:	The National Center for Research in Vocational Education The Ohio State University Columbus, Ohio 43210
Executive Director:	Robert E. Taylor
Disclaimer:	This publication was prepared pursuant to a contract with the Office of Vocational and Adult Education, U.S. Department of Education. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official U.S. Department of Education position or policy.
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CONTENTS

FOREWORD

A Recap of The Sixth Nationwide Vocational Education Dissemination Conference reviews the proceedings of that convening of vocational education disseminators, linkers, administrators, researchers, resources, staffs, and other change agents at the National Center for Research in Vocational Education, Columbus, Ohio, on November 15-17, 1983. The conference featured tools, techniques, information, and examples that can be used to promote good dissemination and utilization of R&D results. An excellent response to the call for presenters issued several months before the conference and the support and participation of numerous agencies and individuals resulted in fifty individual workshop offerings. In all, approximately seventy small-group and large-group events were included during the three days of the conference. "Disseminating for Tomorrow's Voc Ed" was the theme of the sixth national conference, and considerable emphasis was given to topics and activities related to microcomputer hardware and software applications for vocational education disseminators and change agents. A highlight of the conference was the keynote symposium panel which addressed a critical issue for researchers and developers as well as disseminators and users of R&D results.

The National Center for Research in Vocational Education gratefully acknowledges the assistance of the following organizations and individuals:

- The National Network for Curriculum Coordination in Vocational and Technical Education (NNCCVTE) and the National Research Coordinating Unit Association (NRCUA) for advising the planning and development of this conference

- BES Computer Concepts (Mansfield, OH) and High Technology Software, Inc. (Oklahoma City, OK and regional locations) for supplying the microcomputer laboratory equipment

- Dr. Peter Seidman of the Illinois Department of Education for developing and organizing the Thursday afternoon symposium panel and to Dr. William Dunn, Dr. Paul Hood, and Dr. Karen Seashore Louis for their participation.

As a record of conference activities and a guide to available resources, this recap is intended to serve conference participants as a useful office reference to prompt their continued dialogue and exchange of resources and information. This recap was compiled by Norman M. Singer and Shelley Grieve, Conference Directors, with staff assistance provided by Judy Balogh. Clarine

Cotton typed the manuscript and Janet Ray served as word processor operator. Editorial assistance was provided by Ray Stewart of the Field Services staff.

Robert E. Taylor
Executive Director
National Center for Research
in Vocational Education

EXECUTIVE SUMMARY

This document reviews the activities of The Sixth Nationwide Vocational Education Dissemination Conference, held November 15-17, 1983 at the National Center for Research in Vocational Education in Columbus, Ohio. Following the sequence of the conference agenda, brief summaries of small-group workshops and large-group sessions are provided. Appendix A contains samples of handouts or materials referred to in many of the summaries. Additionally, to encourage and facilitate continued dialogue and exchange of information and dissemination resources and ideas, a list of all conference participants with contact information is provided in appendix B.

AGENDA

DISSEMINATING FOR TOMORROW'S VOC ED

THE SIXTH NATIONWIDE VOCATIONAL EDUCATION DISSEMINATION CONFERENCE

NOVEMBER 15-17, 1983

TUESDAY, NOVEMBER 15

AM Chairperson: Norm Singer

8:15 AM COFFEE AND REGISTRATION

9:00 AM WELCOME AND STAFF INTRODUCTIONS

Norm Singer, Conference Director
National Center

Opening Comments

Robert E. Taylor
Executive Director
The National Center for Research in Vocational Education

9:15 AM CONFERENCE KICKOFF: FUTURING IN VOC ED
Room 1A, 1900 Building

William Plimley
New York State Education Department

Today's fast paced developments leave us, as vocational educators, facing more, and continual, changes. The purpose of this session was to examine futuring as a means of updating and renewal for vocational educators and their organizations. After an introduction to the futuring process for educational planning in New York, participants broke into small groups to take a closer look at a hypothetical voc ed "future."

10:15 AM ORIENTATION TO PRODUCTS AND SERVICES FROM THE NATIONAL CENTER
Room 1A, 1960 Building

Cathy Ashmore and Field Services staff
National Center

10:25 AM BREAK

10:40 AM CONCURRENT SESSION #1. (Each participant chose one workshop.)

o WOMEN IN NONTRADITIONAL CAREERS (WINC): A PROGRAM MODEL ON CAREER DEVELOPMENT FOR HIGH SCHOOL STUDENTS (repeated during session #4)
Room 1A, 1960 Building

Annie W. Neal
Mary W. E. Natani
Women's Bureau, U.S. Department of Labor

WINC was originally one of five school-to-work transition projects designed to test the effectiveness of school, community, and local government collaboration in preparing young women to make the transition from school to work. Today, the Women's Bureau is providing extensive technical assistance on how to replicate this program successfully nationwide. See appendix A, pp. 29-30, for an outline of the WINC school-to-work transition model.

This session covered the WINC curriculum, its development, and current promotional efforts. Implementation strategies and collaborative dissemination at the regional level were stressed.

o PROJECT COFFEE: A MODEL TECHNOLOGY OCCUPATIONS PROGRAM (repeated during session #10)
Room 1C, 1960 Building

Janice Garvey
Oxford (MA) High School

Project COFFEE (Cooperative Federation for Educational Experience) is targeted for high school students with histories of academic failure, truancy, poor self-concept, family problems, and social misconduct. The program contains integrated components of high-technology occupational education, industry/education initiatives, interagency collaboration, secondary basic skills education, computer-assisted instruction, occupational and emotional support, and adaptive physical education. Following an overview of Project COFFEE--conception, implementation, program goals and objectives, cost effectiveness, funding sources, and industry involvement--possible adoption and training processes were discussed.

o BIG BIRD SENT ME
or, Using Alternative Technologies to Disseminate Information and Provide Training (repeated during session #8)
South Auditorium, 1900 Building

Ida M. Halasz
National Center

Information disseminators and trainers cannot escape the current "Big Bird" era of satellites and other distance technologies. Participants in this workshop learned about the latest technologies,

their applications to dissemination and training, and how they can be applied in highly cost-effective ways. A matrix explaining these electronic technologies and telecommunications modes and checklists to match technologies and dissemination/training needs were shared (see appendix A, pp. 31-32).

o PROGRAM REVIEW/PLANNING IN MICHIGAN: Processes + Linkages = Results
North Auditorium, 1900 Building

Currin Cooley
Michigan Vocational Education Resource Center, Michigan State University

This presentation briefly described the development, dissemination, and implementation of the Program Review and Planning Process (P/RP) in Michigan. This secondary vocational education program review provides a step-by-step process through which educators at the local level may plan and conduct a program review, identify and set priorities, and implement a written action plan to improve their vocational programs. The process is based upon goals and objectives that measure seven components of a program/delivery system: finance and administration, population/access, community involvement, personnel, student services, facilities and equipment, and instruction. The collaboration between the Michigan Department of Education-Vocational/ Technical Education Service and the Michigan Vocational Education Resource Center, Michigan State University in designing and implementing the program was stressed.

o OUTCOMES OF VOCATIONAL EDUCATION: RESULTS OF THE NATIONAL LONGITUDINAL SURVEYS
Conference Room 1, 1900 Building

Paul Campbell
National Center

In the presence of a national debate about the effectiveness of schooling, it is important that the voc ed community remain aware of the perceptions of the general population and have the necessary information to pass on to clients and constituents. This session presented a summary of research results on the overall effects of vocational education, suggested areas in which programs should be reviewed to change outcomes, and made recommendations for future research. A copy of "Research You Can Use" is included on pp. 33-34 of appendix A.

11:30 AM LUNCH
Room 1A, 1960 Building

PM Chairperson: Jay Smink

12:30 PM CONCURRENT SESSION #2. (One workshop chosen.)

o A SUGGESTED APPROACH FOR MAINSTREAMING SPECIAL EDUCATION STUDENTS INTO VOC ED PROGRAMS (repeated during session #6)
Room 1A, 1960 Building

Ronald Frye
Central Washington University

Unless we begin to implement mainstreaming in the way it was intended, it will become only a surface change that fails to serve the young individuals who stand to profit most. This realistic, proven approach can be used by the special education teacher and the receiving classroom teacher as they examine the handicapped learner's readiness together. Assessment of existing skills and agreement on placement and standards were included in the discussion. See appendix A, pp. 35-41 for a document for use in formulating an action plan and related information.

o COMPUTER LITERACY: A DISSEMINATOR'S PRIMER
(SESSION LIMITED TO TWENTY PEOPLE--repeated during session #6)
Micro lab (Room 1B), 1960 Building

Jo Brooks
Leota Boesen
Vocational Education Services (IN)

This session was designed to introduce the microcomputer novice to such terms as CRT, disk drive, RAM, ROM, floppy discs, bits, and bytes and to provide hands-on experience with hardware and software. A glossary of microcomputer terms distributed at this workshop can be found in appendix A, pp. 43-47.

o DEVELOPING A RESOURCE GUIDE ON EMPLOYABILITY SKILLS
Room 1C, 1960 Building

James Pershing
Vocational Education Services (IN)

In this sharing session, participants learned the process and procedures used to develop a resource guide for employability skills and how to adapt this to a variety of voc ed settings.

o NNCCVTE: WHAT IT IS, HOW IT WORKS (repeated during session #5)
North Auditorium, 1900 Building

Joyce Sawatzky
Oklahoma State Department of Vocational and Technical Education

The National Network for Curriculum Coordination in Vocational and Technical Education (NNCCVTE) promotes organized sharing of information related to vocational instructional materials and their development, dissemination, and diffusion. This session provided participants with an overview of NNCCVTE's work, its effects, and examples of how NNCCVTE can best work for them.

o VOC ED'S ROLE IN DISSEMINATING ECONOMIC DEVELOPMENT (repeated during session #11)
South Auditorium, 1900 Building

Carol Sanders
University of Illinois

Vocational educators are partners with business, industry, labor, and government in economic development--yet many do not know how or where to begin. This program defined economic development, identified goals and outcomes, and specified the roles and responsibilities of the various groups involved. The contents of a document designed to assist these planning efforts was presented (See appendix A, pp. 49-53).

1:30 PM CONCURRENT SESSION #3. (One workshop chosen.)

o MARKETING YOUR PROGRAM (to be repeated, session #7)
Room 1A, 1960 Building

Vila Rosenfeld
East Carolina University (NC)

Whatever your program or business, it must be marketed. No matter how excellent your program, it must compete with others for resources and clients. Participants in this workshop learned how to promote their program (or rethink their present marketing plan) through a well-focused, well-planned marketing scheme. Topics covered included: defining marketing, the rewards of marketing, knowing your product, improving your product, and developing and implementing your own marketing plan.

o GET THE INFORMATION OUT . . . ANYWAY YOU CAN! (repeated during session #12)
North Auditorium, 1900 Building

Jan Novak
Wisconsin Vocational Studies Center

With the information age upon us, we all see the need for improved ways to "get the information out" to those who want and need it. At the Vocational Studies Center (University of Wisconsin-Madison), the greatest challenge frequently lies in getting current research, materials, and technical assistance to service providers. Selected communication and dissemination strategies--on-site sessions, free

loan mail libraries, a JTPA Clearinghouse, magazines, and filmstrips--were discussed and the basic operational steps were described. Participants were able to share their own experiences and examine how they might modify strategies for their own use. A step-by-step process for "getting the information out" can be found in appendix A, pp. 55-60.

o AN ARRAY OF SELECTED PRODUCTS
South Auditorium, 1900 Building

Jay Smink
Judy Samuelson
National Center

This session overviewed the "Selected Products" process at the National Center and introduced participants to a number of these exemplary, field-based resources in such areas as economic development, education-industry, planning and evaluation, cooperation, and communication and linkages.

o UPGRADING AND RETRAINING ADULT WORKERS: BARRIERS AND SOLUTIONS
Conference Room 1, 1900 Building

Catharine Warmbrod
National Center

Community and technical colleges play an important role in economic development through their upgrading and retraining of adult workers for industry. An examination of the key factors in their successes provided participants with creative solutions to common barriers faced by educational institutions in offering customized courses for industry and special programs for adult workers. Participants were also able to identify resources available for planning and implementing programs in industry.

2:20 PM BREAK

2:40 PM CONCURRENT SESSION #4. (One workshop chosen.)

o EXEMPLARY PROGRAMS THAT WORK: CALIFORNIA'S STATEWIDE SYSTEM FOR DISSEMINATION AND IMPLEMENTATION
Room 1A, 1960 Building

Jane Zinner
Dissemination Network for Adult Educators (CA)

Developed in 1981 to identify exemplary programs in adult education and make them available, this proven system now provides information and technical assistance to over 10,000 educators. Based upon the NDN model, the California Dissemination System demonstrates how generic concepts of dissemination can be successfully applied statewide.

This session described the critical components of this system and outlined the steps involved in program implementation and information dissemination, and the intertwining relationship between the two. Finally, ways these critical components apply to vocational education and other content areas were discussed.

o USING A MICROCOMPUTER TO ESTABLISH/MAINTAIN A DATABASE MANAGEMENT FILE (SESSION LIMITED TO TWENTY PEOPLE--repeated during session #7)
Micro lab (Room 1B), 1960 Building

Carol Laughlin
Massachusetts Vocational Curriculum Resource Center

Are you asked to handle more information than is humanly possible? Write more reports than you have time for? Using a database management system is one solution to this problem. In a hands-on experience, participants in this session used Information Master, a tutorial program by High Technology Software, to create their own database files. A listing of all workshop participants with address, organization, accessible microcomputer(s), and specific interests can be found on pp. 61-64.

o WOMEN IN NONTRADITIONAL CAREERS (WINC): A PROGRAM MODEL ON CAREER DEVELOPMENT FOR HIGH SCHOOL STUDENTS (repeat of session #1)
Room 1C, 1960 Building

Annie W. Neal
Mary W. E. Natani

o UTILIZING R&D PRODUCTS IN STRATEGIC PLANNING AND HUMAN RESOURCE DEVELOPMENT (repeated during session #9)
North Auditorium, 1900 Building

Warren Groff
North Central Technical College (OH)

This session described briefly the transition from the industrial society to the postindustrial, highly technical, information society; interpreted the societal transition in terms of implications for strategic planning and human resource development; and demonstrated the use of R&D products in this context.

o THE CHANGING OF THE GUARD IN VOCATIONAL EDUCATION AND PLACEMENT IN A NATION AT RISK
South Auditorium, 1900 Building

Ray Wasil
Ohio State Department of Education

In this session, participants were able to discuss the "old" and "new" ways of communicating, cooperating, and collaborating among business, industry and education at the secondary and postsecondary

levels and their impact on today's vocational education and vocational leadership.

3:40 PM CONCURRENT SESSION #5. (One workshop chosen.)

o NNCCVTE: WHAT IT IS, HOW IT WORKS (repeat of session #2)
Room 1A, 1960 Building

Joyce Sawatzky

o READABILITY IN VOC ED CURRICULUM MATERIALS
Micro lab (Room 1B), 1960 Building

Antoinette Welch
Edgar Dale
Joseph O'Rourke
The Ohio State University

Although the readability of instructional materials is not a new topic, it is a major concern of educators today. This session provided an overview of readability and hands-on experience in using formulas to estimate it. Emphasis was placed upon current tools for estimating readability: The Living Word Vocabulary and the use of microcomputer software. A bibliography of readability studies is included in appendix A, pp. 65-70.

o Follow-Up Session: FUTURING
Room 1C, 1960 Building

William Plimley

New York's futuring process, its specific objectives and outcomes, and reactions and questions from the morning's "kickoff" event were covered in this follow-up session.

o AN ENTREPRENEUR NETWORK THAT WORKS
North Auditorium, 1900 Building

Novella Ross
Phyllis Baker
National Center

Learning how to be an entrepreneur is not a simple thing to be mastered in one course. Rather it is a lifelong building process that involves education at all levels. The National Center is supporting the development of a network for entrepreneurship education, with particular emphasis on vocational education as the delivery system.

This interactive session focused on the lifelong learning model for entrepreneurial development; current nationwide network development activities (state task forces, regional workshops, collaborative

relationships, and National Center dissemination efforts such as the New Venture Newswire); and the sharing of experiences and interests from participants. See appendix A, pp. 71-74 for "A Framework for Life-Long Entrepreneurship Education: The Model" and the policy statement of the U.S. Department of Education on entrepreneurship education.

- UPDATE: RESEARCH ON THE EFFECTS OF TRAINING AND EMPLOYMENT
  Conference Room 1, 1900 Building

  John Bishop
  Richard Miguel
  National Center

  What do employers expect from the students they hire? What benefits do businesses receive from people with vocational education training? These questions and others were answered according to the most recent research on training and employment.

  John Bishop presented the results of his study of the social payoff of vocational training. Over 4000 employers completed survey questionnaires in which they answered questions about newly hired employees in their firms. The major findings of the study included: employees with relevant vocational training were 18 percent more productive than others, required less training, and took less time to train. The benefits of vocational training were found to be cumulative in that they are passed on from one employer to another, with the effects still observable three years after the original training was received.

  Richard Miguel presented the results of his study of the effects of perceptions of employer standards on employment outcomes after high school. The major findings of the study included: students with vocational education background were more likely to value the standards of employers and were more likely to be congruent with their employers' reports of the standards. Taking more vocational courses was related to higher productivity ratings and evaluations of work attitudes and basic skills.

  Session participants made suggestions for the effective dissemination of these findings.

4:30 PM ADJOURN

6:30 PM NO-HOST SOCIAL HOUR
Inn on the Lane

7:30 PM CONFERENCE BANQUET
Inn on the Lane

Entertainment was provided by the AAUW Choral Group.

WEDNESDAY, NOVEMBER 16

AM Chairperson: Shelley Grieve

8:15 AM ANNOUNCEMENTS

8:30 AM CONCURRENT SESSION #6. (One workshop chosen.)

o MICHIGAN'S CURRICULUM DEVELOPMENT AND DISSEMINATION PROCESS
Room 1A, 1960 Building

Gloria Kielbaso
Carol Culpepper
Michigan Vocational Education Resource Center, Michigan State University

Curriculum development and dissemination are vital if voc ed is to keep pace with new technology, job redesign, and the preparation of students for the world of work. At the same time, states are constantly searching for new ways to adapt/adopt curriculum from other states to avoid duplication of effort. Participants in this session learned how a curriculum management system is developed; the steps necessary in writing task-based curriculum; how to design workshops for dissemination; and procedures for publishing and distributing curriculum guides.

o COMPUTER LITERACY: A DISSEMINATOR'S PRIMER
(SESSION LIMITED TO TWENTY PEOPLE--repeat of session #2)
Micro lab (Room 1B), 1960 Building

Jo Brooks
Leota Boesen

o A SUGGESTED APPROACH FOR MAINSTREAMING SPECIAL EDUCATION STUDENTS INTO VOC ED PROGRAMS (repeat of session #2)
Room 1C, 1960 Building

Ronald Frye

o WHAT THE RESEARCH HAS TO SAY ABOUT SCHOOL EFFECTIVENESS
North Auditorium, 1900 Building

James McGeever
Beth Sattes
Appalachia Educational Lab (WV)

A number of researchers--Brookover, Lezotte, and Edmonds--have studied extensively the characteristics of effective schools: their climate, curriculum, and organization. This session summarized that research in a way useful to vocational education disseminators and others interested in program improvement. The second

objective of the session was to provide participants with experience in a needs assessment process that identifies a school system's needs in relation to the literature on effectiveness.

o COMMUNICATING WITH DATABASES--AND EACH OTHER--ELECTRONICALLY
South Auditorium, 1900 Building

Judy Wagner
Carl Oldsen
Wesley Budke
Phyllis Baker
National Center

To develop and operate up-to-date and effective training programs, vocational and technical educators need access to a wide variety of current information. They must also be able to communicate with each other easily and rapidly. This session was designed to--

- o introduce educators to several vocational and technical education databases (ERIC, RIVE, VECM, and ROME) and how they complement each other;
- o describe accessing the databases; and demonstrate how information from the databases can be combined to provide a comprehensive subject search.

Electronic mail and on-line newsletters were also discussed, with an eye to their economy, efficiency, and ease of use.

9:30 AM CONCURRENT SESSION #7. (One workshop chosen.)

o DISSEMINATING VIA A MOBILE UNIT
Room 1A, 1960 Building

Cheryl Peters
Columbia Gas Distribution Companies

A mobile education program can be an effective means of disseminating information. In this session, the operation of a mobile education unit was outlined with special attention given to scheduling, publicizing, and maximizing learning. Portions of the mobile program were presented to illustrate key points. See appendix A, p. 75, for a profile that can be used to develop a mobile education program.

o USING A MICROCOMPUTER TO ESTABLISH/MAINTAIN A DATABASE (LIMITED TO TWENTY PARTICIPANTS--repeat of session #4)
Micro lab (Room 1B), 1960 Building

Carol Laughlin

o USING FEEDBACK FROM PUBLIC HEARINGS
Room 1C, 1960 Building

Ruth Patton
East Central Curriculum Management Center (IL)

The value of conducting and obtaining information from the public hearing, "Open Meeting on Future Curriculum Needs in Vocational Education and Training," was discussed in this sharing session. Data from two types of assessment, organization, and content were presented. Networking for advertising the hearing and for disseminating the data was discussed. A work sheet for a public hearing on vocational education curricula for grades one through three is found in appendix A, pp. 77-78.

o MARKETING YOUR PROGRAM (repeat of session #3)
South Auditorium, 1900 Building

Vila Rosenfeld

10:20 AM BREAK

Featuring: Informal tour, Columbia Gas mobile unit (outside south door, Room 1A)

10:40 AM CONCURRENT SESSION #8. (One workshop chosen.)

o CONNECTICUT'S VIP DISSEMINATION PROGRAM (repeated during session #14)
Room 1A, 1960 Building

Valerie Pichanick
Connecticut Department of Education

Connecticut's VIP Program is designed to reward good vocational teachers and share their techniques with fellow educators. The program identifies and disseminates information about locally developed promising practices in vocational and adult education-practices that are replicable in other settings; have measurable indicators of success; address identified needs, problems, or target populations; and utilize practical or readily duplicated resources.

This session presented a step-by-step approach to implementing the VIP Program. Participants learned about the purpose and origins of the program; the identification process; the recognition procedures; the dissemination of information; and the benefits. The presentation was geared to giving attendees sufficient information to initiate similar programs in their own states.

o THE INTAKE-THROUGH-PLACEMENT MODEL: PROVIDING MANDATORY SERVICES UNDER THE JTPA
Room 1C, 1960 Building

Joseph Cohen
PREP, Inc.

The Job Training Partnership Act mandates a number of fundable services to be provided to various client groups that are highly varied in their assessment, training, and outplacement needs. During this session, participants learned about a model that has been devised to assist individuals in their school-to-work or work-to-work transitions. This continuum identifies a variety of assessments, training activities, and miscellaneous activities, including labor market information gathering. Examples of activities with dislocated workers, the handicapped, and high school seniors were shared.

o BIG BIRD SENT ME
or, Using Alternative Technologies to Disseminate Information and Provide Training (repeat of session #1)
North Auditorium, 1900 Building

Ida M. Halasz

o SEARCHING FOR SOFTWARE SOURCES
South Auditorium, 1900 Building

Leota Boesen
Jo Brooks

Participants in this session learned to locate educational software through a variety of sources: software directories, evaluation sources, commercial databases, journals, books, and networks. A bibliography listing some of those sources was distributed. (See appendix A, pp. 79-96). Issues such as loaning software and finding applications software (used on the job) as opposed to educational software (used for drilling purposes) were discussed.

o The Development and Dissemination of Competency-based Administrator Education Materials via a Multistate Consortium
Conference Room 1, 1900 Building

Robert Norton
National Center

This session focused on the techniques used to cooperatively develop and disseminate competency-based modules for secondary and postsecondary administrators of vocational education. Participants learned how high-quality training materials can be effectively and efficiently developed through a consortium approach--an approach which also fosters a sense of ownership and a strong commitment to use of the materials.

11:30 AM LUNCH AND COMMENTS

"Countdown to Success," a brief videotape designed to motivate women and girls to consider the unlimited career options available to them today (including careers available through vocational education) was featured at this time. See full description under session #9.

Rosemary Thompson
Judith Moss
National Advisory Council on Women's Educational Programs (DC)

PM CHAIRPERSON: Joel Magisos

12:20 PM KEYNOTE SYMPOSIUM: R&D and D&U: HOW WIDE THE GAP? HOW LOOK THE BRIDGES?
Room 1A, 1960 Building

William Dunn, University of Pittsburgh
Paul Hood, Far West Laboratory (CA)
Karen Seashore Louis, University of Massachusetts
Peter Seidman, Illinois State Department of Education, moderator

Two Communities Theory Revisited

The topic of the panel discussion was educational improvement through knowledge creation, dissemination, and utilization, using as a conceptual touchstone the spanning of the perceived gap between the research and development (R&D) and the dissemination and utilization (D&U) communities. The D&U literature gives this gap the formal title of the "Two Communities Theory." This theory states that the most prevalent explanation of the misuse, underuse, or lack of use of research and development outcomes is the inherent cultural conflict between the community that produces these outcomes and the community that applies them.

The panel was composed of three prominent experts on the question. Each panelist took brief initial stands on the issues before the discussion was opened to the audience.

What does the Two Communities Theory have to offer practitioners at all stages of the knowledge creation, dissemination, and utilization process that will assist them as they work to improve education? What power does the theory have to assist the practitioner in explaining, understanding, and actually improving education? William Dunn's response to this question centered around contrasting two metaphors: the lumbermill and the Two Communities. He believed that the Two Communities Theory was a stronger heuristic than the lumbermill metaphor. The Two Communities Theory is a cultural metaphor that focuses on the subjective meaning of what is known to the knower, while the

lumbermill metaphor focuses upon an overload of knowledge creating a jam of information resulting in insufficient knowledge reaching those who could use it. Dunn went on to contrast the difference in the criteria used to develop outcomes when one metaphor was used as compared to the other. The Two Communities metaphor uses such criteria as the need for an R&D outcome to deal with multiple perspectives, political issues, and value conflicts, while the lumbermill metaphor requires outcomes to be developed using such criteria as brevity, access, and relevance. Paul Hood stated that the Two Communities Theory was a powerful idea leading to sensitivity to the organizational context within which persons operate and the effect of this context on individual perspectives. However, he also stated that the problem with the theory is that there "ain't two [communities] anymore; it's literally hundreds!" Karen Louis believed the Two Communities Theory to be "evocative" but viewed the theory as having "serious limitations." Her analysis of its limitations focused upon the characteristics of a community and demonstrated how the two communities spoken about in the Two Communities Theory did not meet these characteristics. Louis believed that alterable characteristics should be focused upon as one strives to span the gap between those who create knowledge and those who disseminate and utilize it. She spoke about such characteristics as usability and organizational design.

The audience asked the panel about such issues as how to translate what the researcher does into practitioner language as well as whether any underlying principles for good communication between and among the communities existed. Lastly, one participant stated that he believed a third community must be included in the vocational education equation: business and industry.

The second question addressed to the panel was, "What is the one strategy which you believe should be used to reduce or span the gaps between and among the practitioner communities in knowledge creation, dissemination, and utilization as these communities work on improving education; please offer examples of specific tactics your strategy would use." William Dunn stated that his strategy was to educate the knowledge creation community in how to argue cogently and how to identify underlying assumptions. He stated that the question was one of teaching knowledge creators how to translate newly produced knowledge into a form useable by disseminators and users of the knowledge as well as a question of "back-translating" information from the disseminator/user community into language understood by the knowledge creation community. Paul Hood stated he would focus upon the whole area of "people-as-sense-makers." Both he and Dunn stressed the importance of understanding what the disseminator and users of knowledge consider reality or truth--i.e., how the disseminator and user define the knowledge they use. Louis reiterated her concern with the need to attend to alterable characteristics so that educational structures were made more accessible and usable. She focused upon the need for better incentives and support structures, the need for local autonomy in choosing solutions, and the need for "lots of human help."

In the follow-up session, Paul Hood made the point that vocational education is involved in a paradigm shift; that vocational educators have a new responsibility, one of the hardest elements of which is we do not know what our responsibilities are. However, if we don't deal with this enigmatic

situation, the educational decisions will be made for us by noneducators. William Dunn agreed with Hood and stated that the educational problem is learning to learn, is "procedural learning." Hood responded to Dunn's remarks by agreeing that a higher-order approach to knowledge creation, dissemination, and utilization is needed and that the educational community no longer has time to wait for the results of research before it takes action.

In summary, all three panelists stated their belief that the Two Communities Theory was a good initial entree into the problems of knowledge use, but that the theory was too simplistic. During the discussion, it became obvious that all three panelists believed both sense making as well as structural issues were important approaches to a study and resolution of knowledge use problems.

-- Peter Seidman

2:00 PM CONCURRENT SESSION #9. (One workshop chosen.)

o "COUNTDOWN TO SUCCESS: FOLLOW-UP SESSION"
Room 1A, 1960 Building

Rosemary Thompson
Judith Moss

"Countdown to Success" motivates women and girls to consider the unlimited career options, including careers in vocational education, available to them today. Presented by the National Advisory Council on Women's Educational Programs (a presidential advisory committee), this workshop focused on special models for women in voc ed through the Women's Educational Equity Act Program. The council's twelve-minute videotape is available for use by workshop participants in their own communities.

o OPERATING A HOTLINE FOR A MICROCOMPUTER CAREER INFORMATION SYSTEM
Micro lab (Room 1B), 1960 Building

Jim Long
National Center

The line of demarcation is narrow between promoting one company's product and ensuring that microcomputer-supported career information systems are effectively utilized after the purchase decision. A telephone hotline is one way to serve user needs without "playing favorites." Participants learned why the National Center operates a CHOICES hotline for a commercial vendor of career information software. The system was available for those interested in experimenting with CHOICES on microcomputer.

o TWO FACETS OF CAREER ASSESSMENT
Room 1C, 1960 Kenny Road

Caroline Kirby
Michigan Department of Education

Stephen P. Barrett
Career Assessment Center, Ltd. (PA)

"Youth and the Work World of Tomorrow--Will They Make It?" featured the results of Michigan's statewide sampling of students on career development. Key results from this assessment show whether students are adequately preparing for changes occurring in our society and the occupational world. Caroline Kirby examined such topics as: appropriateness of career choices, openness to nontraditional careers, knowledge of microcomputers, and more.

"Career Assessment and Job Search Techniques--A Practical Approach for Youth and Adults" presented an innovative model related to occupational testing and job search techniques. Stephen Barrett outlined a performance-based occupational evaluation process and a competency-based job search curriculum. The presentation included a videotape of clients in action.

o UTILIZING R&D PRODUCTS IN STRATEGIC PLANNING AND HUMAN RESOURCE DEVELOPMENT (repeat of session #4)
North Auditorium, 1900 Building

Warren Groff

o DISSEMINATION IN ADULT EDUCATION: WHAT'S IN IT FOR YOU?
South Auditorium, 1900 Building

Susan Imel
National Center

Jane Zimmer
Dissemination Network for Adult Educators (CA)

This session described how disseminators in vocational education can link with the adult education dissemination system by covering the status of adult education dissemination activities; how vocational educators can benefit from linkages with adult educators; and the specific clearinghouses, resource centers, programs, and networks involved in adult educution dissemination. Participants learned how to "plug into" the dissemination resources that best fit their needs as vocational educators. A copy of the Directory of Clearinghouses Serving Adult Educators and Learners distributed to participants at this session may be obtained by contacting the Clearinghouse on Adult Education, Office of Adult and Vocational Education, at (202) 472-5860.

2:50 PM BREAK
Room 1A, 1960 Building

Informal online demos in micro lab (Room 1B) were made available by Judy Wagner, ERIC/ACVE, to interested participants.

3:10 PM CONCURRENT SESSION #10. (One workshop chosen.)

o SYMPOSIUM FOLLOW UP: HOW WIDE THE GAP? And Related Issues
Room 1A, 1960 Building

Keynote panelists
Peter Seidman, moderator

Further questions and concerns were handled in this informal continuation of the keynote symposium. (See Symposium comments, pp. 14-16.)

o EVALUATING VOC ED SOFTWARE
(TWO HOUR SESSION: LIMITED TO TWENTY PARTICIPANTS)
Micro lab, Room 1B, 1960 Building

Shirley Chase
Ruth Gordon
Richard Makin
National Center

Learning to evaluate and select quality microcomputer courseware for instructional purposes was the purpose of this session. During this intensive, two-hour period, participants reviewed and assessed courseware using the Vocational Education Courseware Evaluation System newly developed by the National Center. A profile of this system can be found in appendix A, p. 97.

o PROJECT COFFEE: A MODEL TECHNOLOGY OCCUPATIONS PROJECT (repeat of session #1)
Room 1C, 1960 Building

Janice Garvey

o THE ITINERANT PROFESSOR PROGRAM: A FRESH APPROACH TO TEACHER TRAINING IN VOC ED
North Auditorium, 1900 Building

James Wright
University of Southern Maine

An "itinerant professor" suggests a teacher on the road, meeting with groups of learners on a regular basis. It is a means of delivering education in rural areas to learners, primarily those with inservice or certification-related needs, who are unable to complete college courses in the traditional way. Attendees of this

session learned details about this delivery system, how it provided the interaction necessary to ensure course and program completion, and how it meets the needs of students.

o USER NETWORKS TO SUPPORT THE IMPLEMENTATION OF NEW CURRICULUM PRODUCTS
South Auditorium, 1900 Building

Sarah Dame Wargo
Florida State Department of Education

Participants of this session learned how to set up a statewide user support network for sharing ideas, materials, and information on employability skills. Information about forming a task force, gathering feedback, conducting workshops, and developing materials was shared. Contact the presenter for an outline of the process and related handouts.

4:10 PM CONCURRENT SESSION #11. (One workshop chosen.)

o VOC ED'S ROLE IN DISSEMINATING ECONOMIC DEVELOPMENT (repeat of session #2)
Room 1A, 1960 Building

Carol Sanders

o EVALUATING VOC ED SOFTWARE continued during this time slot. (See description under session #10.)

o MEETING THE NEEDS OF FIELD-BASED STUDENTS: A Collaborative Approach to Technical Training (repeated during session #12)
Room 1C, 1960 Building

Gregory Hricenak
Westmoreland County Community College (PA)

Richard Lunn
Westinghouse Electric Corporation (PA)

How do educators supply much-needed and desired education to field-based employees in today's technically changing industries? A collaborative effort among Westinghouse Electric and two community colleges is meeting the needs of students who travel 50 percent of the year. The structure and implementation of a successful associate degree program in nuclear service techology for field-based employees was reviewed and discussed in this session. See their brochure on pp. 99-100.

o DISSEMINATION'S X, Y, & Z FACTORS: FOLLOW-THROUGH
A Critical Step in Dissemination to Insure Utilization and Acceptance of Materials (repeated during session #14)
North Auditorium, 1900 Building

William Jacobsen
Marshall University (WV)

Observing the end results of many dissemination projects reveals that after material is introduced and distributed, it is neatly placed in the teacher's library, with its greatest functional use being a bookend.

As a consequence of this happening to various projects, a follow-through step was developed as part of the materials dissemination process. The purpose was to increase the number of recipients who use the material and at the same time increase the acceptance of the materials over time by other teachers in the state. This workshop presented this "follow-through" process, which is intended to increase the active utilization of materials. An outline of an experimental process was presented, with participants noting ways to adapt the methods to suit their own projects.

o DISSEMINATION WITHIN THE NOICC/SOICC NETWORK . . . or, Having Fun With Numbers! (repeated during session #15)
South Auditorium, 1900 Building

Nancy Hargis
Oregon Occupational Education Coordinating Committee

Objectives of this session were to--

- o inform participants of the mission and responsibilities of the NOICC/SOICC network as defined by federal vocational education legislation;
- o to describe the variety of dissemination strategies used by SOICCs to meet state and local needs; and
- o to highlight the multitude of uses of occupational information for vocational education, economic development, career guidance and counseling, job training programs, vocational rehabilitation, and other areas.

Participants received fact sheets that described state applications in Idaho, Florida, Maine, and Oregon, and that covered three topics: mode of delivering occupational information; training strategies; and uses in areas such as economic development, program planning, and career options for the handicapped and disabled. See appendix A, p. 101, for a summary of Oregon's Occupational Program Planning System and its applications.

5:00 PM ADJOURN

6:30 PM No-host Social Hour
Inn on the Lane

AM Chairperson: Judy Samuelson

8:15 AM ANNOUNCEMENTS

8:30 AM INTERPERSONAL SKILLS FOR CHANGE AGENTS
Room 1A, 1960 Building

Rachel Schweitzer
Delaware Department of Education

Expectation makes a difference in one's productivity as a change agent, and is a significant variable that determines whether or not programs will improve or products being disseminated will be accepted. This full-conference session was designed to help participants create a better job experience for themselves through self-evaluation and by comparing their attitudes with others who are described as "successful" and "winning achievers." Rachel Schweitzer emphasized how attitudes and expectations influence productivity as well as the outcomes experienced by collegues and co-workers. The film "The Psychology of Winning" was shown during the presentation.

9:30 AM CONCURRENT SESSION #12. (One workshop chosen.)

- o GET THE INFORMATION OUT . . . ANYWAY YOU CAN! (repeat of session #3)
  Room 1A, 1960 Building

  Jan Novak

- o APPLICATIONS OF THE MICHIGAN OCCUPATIONAL DATA ANALYSIS SYSTEM (TWO HOUR SESSION)
  Micro lab (Room 1B), 1960 Building

  John MacKenzie
  Chris Olson
  Michigan Vocational Education Resource Center

  The Michigan Occupational Data Analysis System (MODAS) can assist the user in identifying appropriate DOT titles for programs, basic skill requirements, working environments and physical demands, training time, specific tasks required, and in linking to labor market information. It is especially useful to vocational educators and others involved in curriculum development, clustering of occupational areas, short-term training, assessment of displaced workers, and economic development.

  This workshop created an awareness of MODOS and described major database applications in the course of a trial application. The

second half of the session featured hands-on use of the system and application to the needs of participants.

o MEETING THE NEEDS OF FIELD-BASED STUDENTS: A COLLABORATIVE APPROACH TO TECHNICAL TRAINING (repeat of session #11)
Room 1C, 1900 Building

Gregory Hricenak
Richard Lunn

o SELECTED APPROACHES TO IMPROVED DISSEMINATION (TWO HOUR SESSION)
North Auditorium, 1900 Building

Marvin Patterson
Don Straubinger
Center for Studies in Vocational Education (FL)

Robert Paugh
University of Central Florida

How do you get teachers to use materials they aren't even aware exist? How do you improve classroom management skills of teachers? How do you use networking to build grassroots enthusiasm for new curriculum products? These questions and others were explored in this two-hour session, which shared the Florida experience in creating effective diffusion networks--networks designed to increase utilization of state products by recruiting user-advocates to train and provide technical assistance on site. The industrial education diffusion network was presented as an example.

10:20 AM BREAK

10:40 AM CONCURRENT SESSION #13. (One workshop chosen.)

o TRAINING AND PLACING THE DISABLED IN HIGH TECH OCCUPATIONS (repeated during session #14)
Room 1A, 1960 Building

Beverly Chapman
Orlando (FL) Community College

Dan Tillottson
Sun Bank Service Corporation (FL)

This presentation outlined the successful Computer Programmer Training for the Disabled Program and its delivery system; described the support given by the Division of Vocational Education, the Department of Vocational Rehabilitation, and JTPA; and detailed the heavy involvement of its Business Advisory Council. Participants learned how to modify attitudes and overcome taboos about the employment of disabled people; how to recruit and coordinate students, instructional staff, and a business and industry

advisory council into a training program; and how to apply the model to other vocational education programs. See appendix A, pp. 103-104, for a work sheet on establishing and utilizing a business and industry advisory council effectively.

- o APPLICATIONS OF THE MICHIGAN OCCUPATIONAL DATA ANALYSIS SYSTEM continued during this time slot. (See description under session #12.)

- o SELECTED APPROACHES TO IMPROVED DISSEMINATION (Continued from session #12)
  North Auditorium, 1960 Building

  Marvin Patterson
  Robert Paugh
  Donald Straubinger

11:30 AM LUNCH AND COMMENTS

Featuring: What's Coming Up at the National Academy?

Ferman Moody
National Center

PM CHAIRPERSONS: NORM SINGER AND SHELLEY GRIEVE

12:30 PM CONCURRENT SESSION #14. (One workshop chosen.)

- o TRAINING AND PLACING THE DISABLED IN HIGH TECH OCCUPATIONS (repeat of session #13)
  Room 1A, 1960 Building

  Beverly Chapman
  Dan Tillottson

- o DISSEMINATION'S X, Y, & Z FACTORS: FOLLOW-THROUGH
  A Critical Step in Dissemination to Insure Utilization and Acceptance of Materials (repeat of session #11)
  Room 1C, 1960 Building

  William Jacobsen

- o IMPROVED STUDENT/TRAINEE RECRUITMENT THROUGH NETWORKING
  North Auditorium, 1900 Building

  Dan Fahrlander
  Bob Bhaerman
  National Center

  Presenters discussed briefly the status of recruiting, using the precision metalworking industry as a base point. Participants learned about and reacted to a potential industry-based recruiting network and a proposed approach that utilizes a three-dimensional

matrix to target recruit groups and match them with appropriate recruiting techniques and resources.

o CONNECTICUT'S VIP DISSEMINATION PROGRAM (repeat of session #8)
South Auditorium, 1900 Building

Valerie Pichanick

1:30 PM CONCURRENT SESSION #15. (One workshop chosen.)

o DISSEMINATING WITHIN THE NOICC/SOICC SYSTEM . . . or, Having Fun With Numbers! (repeat of session #11)
Room 1A, 1960 Building

Nancy Hargis

o GETTING ACQUAINTED WITH VOC ED MICROCOMPUTER COURSEWARE
Micro lab (Room 1B), 1960 Building

Shirley Chase
Ruth Gordon
Richard Makin

In this hands-on workshop, participants familiarized themselves with vocational education courseware by using it on microcomputer.

o THE COMPREHENSIVE EMPLOYMENT RESOURCE CENTER: AN ARTICULATED MODEL
Room 1C, 1960 Building

Audrey Casperson
Consultant (PA)

A comprehensive employment resource center not only reduces local unemployment, but does so cost-effectively. At one location, clients can explore careers, determine job readiness, or seek employment. Participants learned about articulating the services of a community college, a state employment service, organized labor, the business community, and a regional educational service unit in order to serve both college students and the unemployed citizens of the service area.

o IDECC: NETWORKING THROUGH A CONSORTIUM
North Auditorium, 1900 Building

James Gleason
IDECC, The Ohio State University

With available funding more limited than ever before, many states and local districts have recognized the value of pooling their resources in consortium arrangements. In existence since the early 1970s, the IDECC consortium has assumed a leadership role in the

development and dissemination of curriculum for marketing and management education. It has become a highly cost-effective organization supporting occupational research, curriculum design, and instructional materials developed in thirty states.

This session focused on IDECC's unique organizational structure, a review of its program of work, and highlights of products developed and disseminated. IDECC's three-phase approach to funding (state grants, in kind activities, and cost-recovery sales) was highlighted. Problems encountered in a consortium arrangement and in dealing with a diverse client base were covered, as well as IDECC's expansion from its traditional role in secondary education to the recent establishment of a training and development "division."

2:30 PM CONFERENCE WRAP-UP AND EVALUATION
Room 1A, 1960 Building

3:00 PM POSTCONFERENCE ACTIVITIES

- o Meetings/appointments with National Center staff members (prearranged through Field Services staff)
- o Database training (prearranged through Judy Wagner, ERIC/ACVE User Services Coordinator)
- o Open micro lab in Room 1B

APPENDIX A: SELECTED HANDOUTS AND PRESENTATION MATERIALS

U.S. Department of Labor

Office of the Secretary
Women's Bureau
Washington, D.C. 20210

Reply to the Attention of:

WOMEN IN NONTRADITIONAL CAREERS (WINC) TRAINING WORKSHOPS

Goals and Purposes

The WINC school-to-work transition model is the product of a demonstration project conducted in Portland, Oregon from 1978 to 1980 under sponsorship of the Women's Bureau. The project was part of a five project initiative designed to test the effectiveness of school, community and local government collaboration is preparing junior and senior high school women to make the transition from school to the workplace and, in particular, to consider nontraditional jobs as a career option. Each of the five projects, in effect, represented a specific "model" in terms of the division of responsibility among schools, the community and local governments in implementing the program.

The Women's Bureau chose the Portland WINC model for replication because it was the most encompassing in that it incorporates into a single program the requisites of an effective nontraditional careers school-to-work transition program. These three components are:

1. Classroom instruction to provide students with occupational and labor market information.

2. Nontraditional job exploration in the community by the students.

3. Training for school personnel to become aware of the need for nontraditional career planning for young women and how occupational choice may affect lifetime earnings potential.

The purpose of the WINC workshops is to provide a forum for the various professionals who play a role in developing and administering career preparation programs to discuss the need for nontraditional career planning as a permanent part of secondary education, and to examine strategies and techniques based on the WINC model for achieving this outcome.

Specifically, the workshops will cover:

- The process used in the Portland project in organizing the program and achieving its "institutionalization" as an elective course in the Portland school system.

- How to gain support for, plan and implement a nontraditional careers course based on a school's current status in providing sex-fair

pre-vocational instruction.

- o A review of the respective roles of superintendents, principals, state sex equity coordinators, curriculum coordinators, teachers, councilors and State Departments of Education in program implementation.

- o How to use the WINC instructional materials to conduct the program's classroom component and how to link classroom instruction with job exploration.

- o How to generate support among school staff for the program and the in-service training component.

- o Anticipating and responding to the concerns of parents, administrators, teachers, students and local employers.

The WINC workshops are part of the Women's Bureau's on-going school-to-work transition programming whose objectives are to disseminate information about WINC as a first step in encouraging its replication in school systems that are either interested in starting a program of pre-vocational instruction or in improving an existing program. Women's Bureau staff will provide technical assistance in implementing local "Action Plans" that will be developed during the course of the WINC workshops.

CHECKLIST 1:
DETERMINING PURPOSES FOR ADOPTING TECHNOLOGIES

What are your organization's PURPOSES for adopting electronic technologies for training delivery or communication? While many of the recently-available technologies appear glamorous and useful, you must consider them in light of the actual purposes they could serve.

Use the following checklist to determine your organization's purposes for using the technologies. Modify the purposes and add or delete purposes as you think necessary.

Purposes	Very Important	Somewhat Important	Not Important At All
To provide quality, stimulating, interactive state-of-the-art training communication.			
To serve clients locally, regionally, or nationally. (Circle those which apply.)			
To serve more clients than is now possible with traditional modes of training/ communication.			
To provide more frequent training opportunities for clients.			
To provide training at a low cost to your organization per client			
To provide training/communication at a lower cost to clients.			
To reach clients in remote locations			
To develop and maintain communication with a broader client base.			
To reach clients more rapidly, even immediately.			
To save client time for travel to training sites.			
To save your organization's staff time for travel to training sites.			
To save your organization's staff time for production of training materials and their dissemination.			
_____			
_____			
_____			

Developed for the National D & U Conf. 1983 by Ida M. Halasz, NCRVE

CHECKLIST 2:
DETERMINING WHICH TECHNOLOGIES MEET PURPOSES

Once you determine the purposes for adopting technologies, you can decide which technologie would be useful for your organization. First, list the purposes you marked "very important followed by those that are "somewhat important". Next, use the advantages and disadvantage columns from "Technologies" to decide which technologies meet purposes. Use a 2 for yes, 1 for maybe, and 0 for no.

Very Important Purposes	Audio Tape	Tele-phone	Radio	Video Text	Elect. Blkbd.	Video Tape	Video Disc	T.V.	Satel Video	Comp. Mail	Co In
Total Scores (Multiply each by 2)											
Somewhat Important											
Total Scores											
Total Scores from Very Important and Somewhat Important Purposes											

Developed for the National D & U Conf. 1983 by Ida M. Halasz, NCRVE

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complete information on these findings, the publications on the list with price designations may be secured from the Publications the National Center for Research in Vocational Education, The University, 1960 Kenny Road, Columbus, Ohio 43210.

information on the research results of National Center projects led to subscribers of Facts & Findings ($17.50 per year), a publication providing the latest research findings and policy eveloped by the National Center.

will be answered through the National Center's Program Information Phone toll free (800) 848-4815 or call (614) 486-3655 (in Ohio de the continental U.S.). Cable CTVOCEDOSU/Columbus, Ohio. 821894.

OSU

The Ohio State University

7/83

RESEARCH YOU CAN USE

FOR POSTSECONDARY EDUCATORS

NEED SOME INFORMATION ABOUT VOCATIONAL-TECHNICAL EDUCA

- **RETRAINING AND UPGRADING WORKERS**
- **JOB PLACEMENT**
- **TECHNICAL UPDATING OF TEACHERS**
- **ROLES AND FUNCTIONS OF VOCATIONAL-TECH EDUCATION**
- **EMPLOYMENT RATES OF GRADUATES**

LO

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 KENNY ROAD · COLUMBUS OHIO 43210

The following findings are based on research that was conducted at the National Center for Research in Vocational Education.

ing and Upgrading Workers

udy of community and technical colleges with exemplary industry
s programs and economic development outreach, twenty-one critical
s for success were identified, including the following:

trong leadership of the college president is essential in
obilizing the college to serve industry and to aid in
ocal and state economic development.

isible commitment throughout the college to serving industry's
eeds--by administrators, faculty, and staff--is required to
et results.

nstitutional flexibility is crucial in responding to industry's
pgrading and retraining needs, as well as those of adult
orkers.

esignating an office with specific responsibility for providing
ndustry training services is critical for success.

Quick response" is a key factor in meeting industry's training
eeds effectively.

eing an integral part of a state system for economic development
s an advantage for a two-year college. (1)*

cement Correlates

rast to postsecondary schools with low job placement rates, schools
gh job placement rates have the following characteristics:

dministrators are committed to and encourage essential
nteraction among community organizations, labor, business,
ndustry, and postsecondary personnel that promote open
ommunication to support job placement.

eachers maintain frequent and meaningful contacts with the
usiness and industrial community.

lanning in the postsecondary institutions is coordinated
ith community and state economic development activities,
especially those activities related to labor supply and
emand.

Job placement rates are used as a program evaluation criterion.

Job placement specialists and counselors provide initial
information about job openings and a support function to
teachers and students. (2)

rs refer to reports listed on the back page.

Teacher Technological Update

- o In eight states studied, knowledgeable experts within each state considered 47 percent of the postsecondary vocational-technical instructors to have substantial or critical need fo updating in the technology of their teaching field.
- o Approximately one-half of the postsecondary instructors in ne of update teach in the areas of technical and trade and indus
- o Approaches to teacher update most widely reported were works conferences, and seminars; university course work, summer employment, and business-industry training programs. (3)

Perceived Roles of Secondary and Postsecondary Vocational Educatio

Delphi surveys of the views and opinions of small, highly select g of knowledgeable leaders in education, vocational education, and employment and training policy report the following:

- o Consensus that secondary and postsecondary vocational educat should serve different roles and functions. Secondary vocat education is seen as multi-purposed, intended to provide tec nical skills in broad occupational areas and at the same tim foster good work attitudes, facilitate the transfer of skill needed in all jobs, motivate disenchanted learners, enhance basic skills, serve as career exploration, and help compensa discrimination against special needs populations. Postsecon vocational education is seen as more single-purposed. Its m function is to teach technical job skills specific to partic occupations.
- o Consistent with these distinctions in roles and functions, different problems and needs of national significance were s as appropriate for attention at the secondary and postsecond level. Youth unemployment, basic skills, and equity and acc were the top priority problem areas where secondary-level vo tional education was thought to have an appropriate role to Problems and needs associated with displaced workers, high technology, and critical skill shortages were seen as the to priority areas that should be addressed by postsecondary voc tional education. (4)

Employment Rates

- o Graduates of postsecondary occupational programs generally h lower unemployment rates than graduates of non-occupational programs.
- o Most postsecondary students obtain employment that is relate to their training. A review of thirty-four studies covering all the major service areas yielded a median-related employm rate of 86 percent. (5)

A SUGGESTED APPROACH TO MAINSTREAMING

Introduction

The special education teacher and the receiving classroom teacher must examine the handicapped learner's readiness together. (Other appropriate individuals may also be involved, i.e. parents, teacher aide or school psychologist, when appropriate.) These individuals determine if existing skills are appropriate for the group into which the student is to be placed and they must agree upon that placement. They should be able to reach an agreement regarding academic and social standards for mainstreamed students.

Unless we begin to implement mainstreaming in the way it was intended, it will become nothing more than a surface change that fails to serve young individuals who could profit from it the most.

Central Washington University

Ronald M. Frye
Glenn A. Madsen

AN ACTION PLAN FOR MAINSTREAMING OF SPECIAL EDUCATION STUDENTS INTO A REGULAR VOCATIONAL EDUCATION PROGRAM

Introduction

In completing this plan for action, it is assumed that the teacher has a particular student in mind or has access to student information that would be sufficient for making judgements about student needs and abilities.

Each section of this form represents a step in the process either in the planning of instruction, carrying out the instructional plan, or evaluating the outcomes of instruction. Key elements involved in each step are listed and space is provided for write-in entries that fit the specific situation and the student involved.

I. PLANNING INSTRUCTION
The Handicapped Student

A. The student's name (or student number) is_____
Student's handicap _____
Other disabilities _____

B. What physical, emotional, or mental characteristics are clearly evident that would limit employability? Could any of these limiting characteristics be modified through education?_____

C. What evidence can you find that suggests whether the student copes with his or her handicap effectively?

D. Has the student had the necessary "pre-vocational" training? What is lacking? _____

E. What are the student's existing interests, demonstrated abilities, and strengths as revealed by prevocational assessment?_____

F. What have you learned from the special education relating to medication, attendance, and procedures to follow if health care is required in the classroom or work station?_____

II. KNOWING YOURSELF

A. Do you usually modify your regular class procedures to accomodate individual differences? If not, why not? If so, what modifications do you make?_____

B. Are you worried about the prospect of having a handicapped student in your classroom? List your main concerns._____
_____

C. When dealing with the handicapped student, how will you check yourself to be sure that your feelings do not cause negative reaction (pity, condescension, rejection, etc.) but instead create a favorable learning situation?_____

D. What strengths' as an instructor can you offer the handicapped student?

_____

III. JOB/TASK ANALYSIS

A. What types of jobs in your occupational area might be open to the trained handicapped student?_____

B. Have you done a task analysis of these jobs? Which tasks could the handicapped person do and which would be especially difficult?_____

_____

C. Can you give the student any examples of other handicapped persons who have been employed in this type of occupation? (Specify)_____

_____

D. Is there a possibility of re-gearing the job so that the very difficult (inefficiently performed) tasks could be eliminated or reassigned?

_____

E. After comparing the job tasks to your course of study and class activities, what problems do you anticipate. What might you do about them?

_____

IV. COOPERATIVE GOAL SETTING

A. After analyzing the job market and the handicapped student's potential, do you think the student needs vocational counseling? (Specify the type of counseling needed.)_____

B. What aspects of the student's pre-vocational assessment should be geared with the student and his/her parents, so that realistic goals can be set?

_____

C. When setting goals cooperatively, who should cooperate with the student in setting goals? _____

D. What short term goals have been cooperatively set?_____

E. What long term goals?_____

F. When will you assess whether the goals have been accomplished? What performance criteria will you use? How does this differ from the methods used to evaluate other students?_____

V. NEEDED COURSE MODIFICATIONS

A. In your curriculum, what content modifications are needed to promote the student's skills? What steps are most important?

_____

B. What course modifications are needed to increase the student's general understanding of the world or work? Could this be gotten in another class?

_____

C. What course modifications are needed to improve the student's work habits, interpersonal relationships, and safety habits?_____

D. What further work experiences would be appropriate for this student? (Identify these as specifically as possible.)

_____

VI. OTHER NEEDED MODIFICATIONS

A. What transportation assistance is advisable to enable the student to travel to the class or work experience locations?

_____

VII. HELPFUL RESOURCES

A. What instructional materials might be obtained to help the student master your course? Where can you get them?_____

B. What person should you involve as advisors, interpreters or aides, and teamates for the student? (Consider professional persons, classroom paraprofessionals, parents, and capable vocational students.)

_____

C. What outside agencies may provide special help or funds? What specific help could be given the students?_____

D. Can other students in your class assist the handicapped student? (How?)

_____

VIII. THE INSTRUCTIONAL PLAN EVALUATION
Student Assessment Following Initial Instructional Period

A. To what extent did the student reach the goals that were cooperatively set for the initial period?
1. Tasks accomplished on time?_____
2. Performance skills satisfactory?_____
3. Work habits satisfactory?_____
4. Social relationships satisfactory?_____
5. Other goals met?_____

B. In those areas where the student's progress was unsatisfactory, what goal adjustments should be made for the next period, if any?

C. In those areas where the student's progress was satisfactory, was the student challenged to reach his or her full potential?

D. What is the student's self appraisal so far?

E. What is your overall appraisal so far?

IX. INITITAL ASSESSMENT OF YOURSELF AND SIGNIFICANT OTHERS

A. Are you able to project a positive, supportive attitude? If not, what prevented it? How can this factor be changed for the next instructional period?

B. Were you able to take the student's individual differences in stride? (Explain)

C. Did you get the kind of backup help you wanted from others?

1. Special Educator
2. Aide
3. Other students
4. Administrators
5. Other support persons

D. If this student is in a work experience setting, how did the employer and coworkers react to the student?

X. REVISIONS OF INSTRUCTIONAL STRATEGY

A. What goals would you consider appropriate for the student in the remainder of the course?

B. What modifications would be appropriate to meet the needs of the handicapped student during the remainder of your course?

1. In curriculum
2. In equipment
3. In materials
4. In instructional approach

EVALUATING OUTCOMES

Student's Development in Vocational Skills

A. During the course the hadicapped student has developed the following skills, subskills, and levels of performance:
(Example) Skill: decorates baked goods
Subskill: applies icing, lettering
Quality of
Performance: creative, thorogh

1. Skill: _____
Subskills: _____
Quality of performance: _____

A PLAN FOR ACTION

2. Skill: _____
Subskills: _____
Quality of performance: _____

3. Skill: _____
Subskills: _____
Quality of performance: _____

4. Skill: _____
Subskills: _____
Quality of performance: _____

5. Skill: _____
Subskills: _____
Quality of performance: _____

6. Skill: _____
Subskills: _____
Quality of performance: _____

B. List any skills that need further development _____
_____

WORK ATTITUDES AND HABITS

A. During this course, the handicapped student has developed the following work habits (Examples, Consistently punctual, follows safety precautions):

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

B. During this course, the handicapped student developed the following work relevant attitudes (Examples: Relates well to others, cooperates willingly):

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

C. List any attitudes and habits that need further development.

_____

_____

GLOSSARY OF MICROCOMPUTER TERMS

acoustic coupler - See **modem.**

application program - A computer **program** which is designed to solve a particular type of problem or perform a specific operation such as inventory control.

ASCII - American National Standard Code for Information Interchange. The standard code used for information interchange among computers. Standard on most microcomputers.

authoring language - A special, simplified **language** with one purpose; to write instructional programs. They often allow simple creation of color **graphics** to accompany or illustrate text.

backup - Duplicate copy made of a valuable **disk** so that if the original is damaged, the information is preserved.

BASIC - Acronym for Beginners All Purpose Symbolic Instruction Code. The **language** most widely available on microcomputers. Each computer brand has a slightly different version (or dialect) of **BASIC.**

baud - A unit for measuring data transmission speed.

bit - A unit of measurement. The smallest unit of information the computer recognizes. A **bit** is equivalent to the presence of absence of an electrical pulse. A **bit** is part of a code to make up each letter or number used by the computer, (0 or 1). There are usually eight **bits** in a **byte**, meaning that a **bit** is one eighth of a letter or number. **Bit** is short for "binary digit."

booting - The process of starting the **disk operating system** so that the **disk** can be read. This happens when you first access the **disk drive.**

bug - An error in a computer **program** that prevents it from working properly. It can also refer to a problem in the **computer system** that prevents it from working properly.

byte - A unit of storage usually equal to 8 **bits** or one alphabetic letter or number. Microcomputer **memory** is measured in kilobytes, or K, which is roughly equal to 1,000 **bytes.**

cathode ray tube (CRT) - a display screen that shows the **output** of a computer. Also called a **video display terminal** or a **monitor.**

chip - A thin silicon wafer on which electronic components are deposited in the form of integrated circuits.

computer assisted instruction (CAI) - Instruction delivered by computer. The instruction may take the form of drills, tutoring, simulation, etc.

computer managed instruction (CMI) - Student management **programs** for computers. These **programs** assist the teacher in class management and include such uses as test making and scoring, grade figuring, student record maintenance, etc.

courseware - Computer **programs** used for instruction. This term is occasionally used to mean computer instruction that is sequential and graded.

computer system - The collection of devices and instructions that make a computer operable. A system will include input devices for accepting new or programmed information; a processor unit; output devices to provide visual, audio, or tactile evidence of information handled by the computer; secondary storage devices to retain and save information; and the programs to run the **hardware** devices.

CP/M - A general purpose **disk operating system** that has now become a standard for many microcomputers.

CPU - Central Processing Unit. This contains circuitry that enables the computer to perform arithmetic, logic, and control functions related to processing information. This capability is not erased when the computer is turned off and on.

cursor - The symbol placed on the computer's screen to indicate where the next typed character will appear. This is sometimes called a **prompt.**

database - A collection of interrelated data that is organized for easy update and retrieval. For example, a livestock database would include the health and breeding information for a herd of animals. This information could be found under any subject category included in the **database**--e.g., all information on dairy cows, all information on innoculations, all information on feed, all information on dairy cow innoculations, etc.

disk - Also called a diskette, or **floppy disk.** See **floppy disk.**

disk drive - The **peripheral** device that can save and retrieve information from a **disk.**

disk operating system (DOS) - A special **program** that must be on each **disk** before it can be used by the computer. This **program** tells the computer exactly how to find information and to store information on a **disk.**

documentation - The manuals or written descriptions that accompany **programs.** Manuals describe the use, contents, objectives, and limitations of **software.** Good **software** packages include detailed and easy-to-use **documentation.**

floppy disk - A soft, thin, plastic **disk** made of the same material as recording tape. It is permanently enclosed in a square protective cover. Data and **programs** can be magnetically encoded and read as the **disk** revolves in the **disk drive.** The **floppy disk** is the most easily damaged component of the entire **computer system** and must be protected from pressure (pencils, paper-clips, ballpoint pens), dust, dirt, folding, and magnetic fields including telephones and television receivers.

graphics - Pictorial representations generated by or displayed by a computer.

hard - In general, the descriptor "**hard**" is computer jargon for something "permanent". For example, "**hard copy**" is more permanent than a screen display; "hard wired" is a wiring connection that cannot be "unplugged"; and "**hardware**" is the physical equipment itself. not subject to changes by nontechnicians.

hard copy - Information printed by the computer on paper rather than temporarily displayed on the screen.

hardware - The physical parts of a **computer system**, including the electronics and physical devices.

input - Information or data entered into a **computer system** via a **program**. This is usually accomplished using a **keyboard**.

interactive - A **computer system** that allows the user to carry on a dialog with the **program** by entering information and responding quickly to it.

interface - A connection between two or more components of the **computer system**. Usually a physical component connecting two or more electronic devices.

K - See **kilobyte**.

keyboard - Resembles a typewriter keyboard and is used to enter **programs** or information into the computer's **memory**.

kilobyte - 2^{10} or 1,024 **bytes**. It is usually abbreviated to "**K**" and used as a suffix when describing memory size. Thus 24**K** really means 24 x 1,024 = 24,576 **byte** memory system.

language - A way to encode information which can be read by the computer. It may consist of number codes, of special vocabulary words, and any of a variety of grammar and syntax rules. Computers cannot yet understand ordinary English. They can only understand one or more of their own **languages**.

letter quality printer - A printer that forms images on paper by striking the paper with an imprinting mechanism like a daisy wheel or thimble. Also called impact printers.

matrix printer - A printer that uses a matrix of dots to form an image of the characters being printed.

memory - Storage locations within the computer for saving data, information, or **programs**.

menu - A list of alternative actions displayed on the **CRT** for selection by the computer user.

microcomputer - A personal or home computer, named because of its small size. It fits on a desk top and has powerful processing capabilities. Its electronics are micro circuits, or **chips**.

modem - An electronic device used at each end of a telephone line which allows a computer to communicate with other computers or terminals through phone lines. **Modems** which cradle a telephone receiver are called **acoustic couplers.** Short for "modulator-demodulator".

monitor - The visual **output** display, similar to a TV but with higher resolution.

output - Information leaving the computer through a device, display, or process. Common forms of **output** are screen displays and printers.

peripherals - Any of a number of physical components that can be added to a **computer system** to expand its utility. These include **disk drives**, printers, **modems**, voice synthesizers, etc.

program - A series of instructions written in a computer **language** that describes the detailed steps to be carried out in order to perform a task. The task can be as varied as showing game **graphics** and allowing a person to play the game, or performing complex mathematical calculations in a business accounting **program.**

RAM - Random Access Memory. The main **memory** of a computer that is accessible to the user. **RAM** can be thought of as empty file cabinets that can hold information as long as the computer power is turned on. This information can be changed or retrieved, but will be lost when the power is turned off unless it is stored on a **storage** device.

ROM - Read Only Memory. This is storage of information or data that cannot be changed by the user. It is used when the computer power is turned on but is not "forgotten" when the computer is turned off. **ROM** is usually built into the computer by the manufacturer and is where a **language**, such as **BASIC**, is stored.

storage - A device, such as a **floppy disk**, that can hold and save information to input into the computer **memory. Storage** devices save information that would otherwise be lost when the computer power is turned off. **Storage** also exists in the computer and refers to the part of the computer devoted to holding information when it is not needed by the **CPU.**

soft - In general, an adjective used to describe parts of the computer system that are subject to change by computer users. For example, "**software**" can be made or modified by computer programmers; "soft wired" is wiring that can be connected or disconnected wiht a simple plug; "soft money" is funding liable to disappear after a while.

software - **Programs** or step-by-step instructions, written in a computer language to direct the computer's operations. **Software** can be entered through the **keyboard** or from stored **programs** on a tape or **disk.**

video display terminal (VDT) - A display screen that shows the computer's **output.** This could be a **monitor** or a regular TV.

word processing - The storage, manipulation, entry, and handling of text. A **word processor** allows you to use a computer like a typewriter that will not print anything until you've made sure it's perfect. It allows you to change paragraphs around, correct typos, check spelling, add or delete sentences, words, or paragraphs on a video screen, before you print your copy on paper.

write protect - A system, similar to those found on cassette recording tapes, that can prevent new information from being recorded or "written" over old information. On **floppy disks**, an uncovered notch on the side may be both read and written onto. If the notch is covered or missing the disk can be read but not written to.

VOC ED'S ROLE IN DISSEMINATING ECONOMIC DEVELOPMENT

The Sixth Nationwide Vocational Education
Dissemination Conference
Disseminating for Tomorrow's Voc Ed
The National Center for Research
in Vocational Education
November 15-17, 1983

Handouts were developed as part of the Vocational Education's Role(s) in Economic Revitalization Project conducted at the University of Illinois, Department of Vocational and Technical Education. The project is funded through the Research and Development Section, Department of Adult, Vocational and Technical Education, Illinois State Board of Education

Project Staff:
James A. Leach, Project Director
Carol S. Sanders, Principal Investigator
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1310 S. Sixth Street
University of Illinois
Champaign, Illinois 61820

DISSEMINATION PLAN

I. Name of Outcomes:

1. "Education for Employment: Planning for Economic Development--A Strategic Approach" (document)
2. "Education for Employment: Partners in Economic Development"

II. Dissemination Goals:

1. Promote use of the outcomes
2. Train a cadre of individuals to further disseminate the project outcomes
3. Provide technical assistance to three community teams as they use the project outcomes to plan for and implement economic development activities

III. Output Classification:

1. Intangible Educational Products

IV. Target Audiences:

1. State personnel
2. Local administrators
3. Guidance staff
4. Classroom teachers
5. Parents
6. Community groups
7. Business/industry/labor
8. Governmental agencies

V. Geographic Region:

1. Illinois
2. Ohio
3. California

VI. Particular Dissemination Activities:

Level of Assistance	Activities	Name of person/ agency responsible for conducting	Name of person/ agency responsible for follow-up
Awareness	1. Develop and send a brochure advertising the project outcomes to individuals within education, governmental agencies, business, industry, and labor	Carol Sanders	Carol Sanders Nona Myers CADRE ECNCC
	2. Write and submit an article to the IVA newsletter	Carol Sanders	ECNCC
	3. Write and submit an article to the Illinois Vocational Education Journal	Carol Sanders	ECNCC
	4. Send copies of the document to the project steering committee and other identified individuals/groups	Carol Sanders	CADRE Consultants
	5. Distribute the 40 copies of the slide/tape to identified individuals/groups	Carol Sanders	Nona Myers ECNCC
	6. Advertise availability of Outcomes in the Illinois Development Council newsletter	Carol Sanders	Nona Myers
Understanding	1. Present program at Conference for educators at Rantoul Teachers Institute, October 17	Carol Sanders	Nona Myers
	2. Present program at PREP Conference, October 27-28	Carol Sanders	Nona Myers
	3. Present two sessions at the Sixth Annual Dissemination and Utilization Conference, November 15-17	Carol Sanders	Nona Myers

Level of Assistance	Activities	Name of person/ agency responsible for conducting	Name of person/ agency responsible for follow-up
Understanding (cont)	4. Present Symposium at AVA December 2-6	Carol Sanders Jim Leach	Nona Myers
	5. Introduce project outcomes to the Liaison Council at the November monthly meeting	Carol Sanders	Liaison Council
	6. Introduce project outcomes to the Consultant Services Section, Department of Adult, Vocational and Technical Education, November	Carol Sanders	Nona Myers
	7. Introduce the project outcomes to the Directors of the Career Guidance Centers at their October 26 meeting	Carol Sanders	Nona Myers
	8. Introduce the project outcomes to the members of the Private Sector Initiatives Committee during November or December	Carol Sanders	Nona Myers
	9. Identify other groups for presentation purposes, i.e., SACVE, State Chamber, Small Business Association, State Economic Development Groups	Carol Sanders	Nona Myers
	10. Conduct meetings with the three identified committees to assist them in understanding their mission, their roles, and their responsibilities	Carol Sanders CADRE	CADRE

Level of Assistance	Activities	Name of person/ agency responsible for conducting	Name of person/ agency responsible for follow-up
Deciding	1. Provide assistance to the three community groups as they develop their economic development plans	Carol Sanders CADRE	CADRE
	2. Provide assistance to the CADREs as they disseminate project outcomes	Carol Sanders	Nona Myers
Implementation	1. Provide technical assistance to the community groups as they implement their economic development plans	CADRE Consultants	CADRE

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STEP BY STEP PROCESS FOR "GETTING THE INFORMATION OUT"

Identify the information to be disseminated or communicated:

Is it facts/research, a publication, a service, technical assistance...or what???

Determine the target population:

What are their needs?
Where are they located?
What are their interests?
Age, male/female.....etc.?
How do we communicate with them now (if we do)?

Identify all possible approaches for dissemination/communication:

What have we done in the past?
What do others do?
If we could do anything, what would we want to do?
Brainstorm ideas...

Assess and select dissemination/communication strategies:

(See Worksheet I - attached)

Develop your dissemination/communication plan:

(See Worksheet II - attached)

Implement your plan:

It helps to keep notes or records on required staff time, meetings, costs (expected & unexpected), successes, problems encountered, etc.

(continued)

Evaluate activities and outcomes:

How? Through telephone or mail surveys of target population, staff, community members, people aware of/involved with effort, etc. (a representative sample may be sufficient); follow-up of target population

What to look for?

Did we reach the target population?
Was the target population the right population for the information?
What expenses were involved in the strategy?
Was it cost effective?
Was the strategy easy to deliver?
Did we reach or surpass the expected response? Why or why not?
How can the strategy be improved? Should it be used again? Should it be "shelved"? Why?

Incorporate evaluation information into next dissemination plan

loped by
Novak & Barbara Dougherty
tional Studies Center
ersity of Wisconsin
son

WORKSHEET I

ASSESSING AND SELECTING DISSEMINATION/COMMUNICATION STRATEGIES

Directions: List the dissemination and communication strategies you have identified. Then, for each approach, indicate whether the selection criterian is an asset (+) or a limitation (-) to planning/implementing the approach.

tegies for emination/Communication	Selection Criteria:	Meets Needs of target pop.	Proven Success/Validation	Potential Numbers Served	Cost	Cost Effectiveness	Monies Available	Expertise of Local Staff	Ability to Incorporate Existing Services, Programs, Resources, Etc.	Acceptability of Approach by staff, target pop., community, etc.	Facilities	Ease of Implementation	Staff Requirements	Success of Similar Activities	Other:	Other:

ak/B. Dougherty
onal Studies Center
sity of Wisconsin-Madison

WORKSHEET I: ASSESSING AND SELECTING DISSEMINATION/COMMUNICATION STRATEGIES

ies for nation/Communication	Selection Criteria:	Meets Needs of target pop.	Proven Success/Validation	Potential Numbers Served	Cost	Cost Effectiveness	Monies Available	Expertise of local Staff	Ability to Incorporate Existing Services, Programs, Resources, Etc.	Acceptability of Approach by staff, target pop., community, etc.	Facilities	Ease of Implementation	Staff Requirements	Success of Similar Activities	Other:	Other:

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onal Studies Center
sity of Wisconsin-Madison

WORKSHEET II

DISSEMINATION/COMMUNICATION PLAN

vity/Approach/Strategy _____

sks & Sub-Tasks	Time Line	Person(s) Responsible	Resources	Projectea Costs

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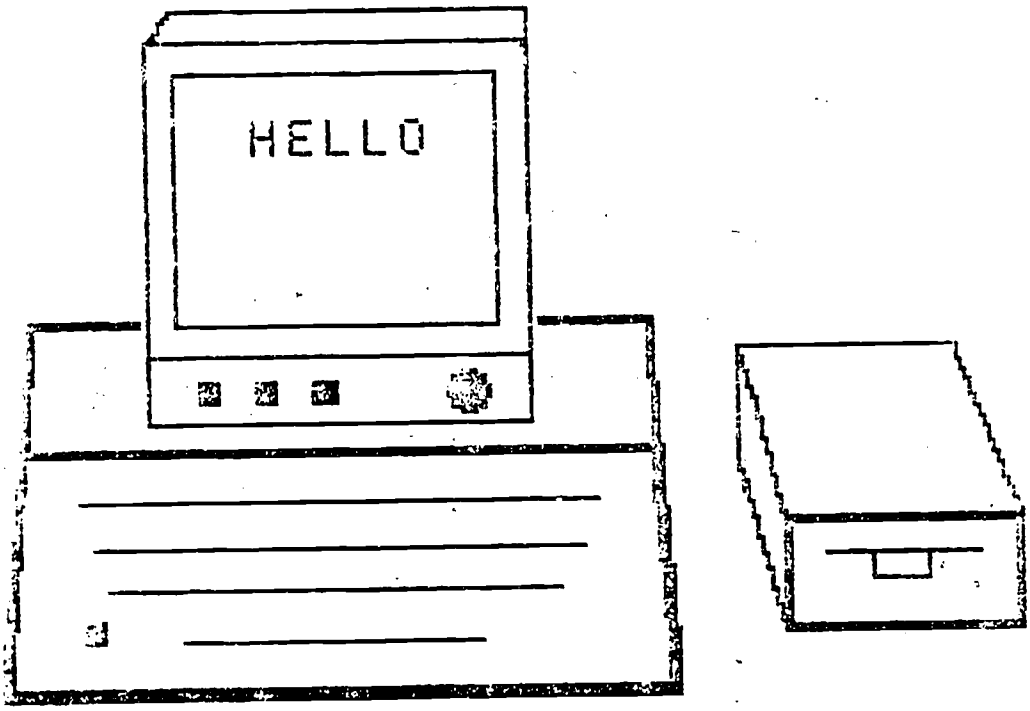
Highlights GET THE INFORMATION OUT...
ANY WAY YOU CAN!!!

- Planning & Implementation Workshops
- On-Site Technical Assistance Package
- On-Site Resource Exhibits
- Magazine
- Clearinghouse & Free Loan Library Systems
- Filmstrips
- Planning to "Get the Information Out"
- An idea I want to take back...or the name of someone in the group I should contact...

USING MICROCOMPUTERS FOR INFORMATION MANAGEMENT



CAROL K. LAUGHLIN

NAME, ADDRESS	ORGANIZATION	APPLE	IBM	TRS	INTEREST
THOMAS ALBAUGH 4300 EAST FIFTH AVENUE COLUMBUS, OH 43216	ROCKWELL INTERNATIONAL/ST. OF OHIO	Y	N	N	EVALUATING SOFTWARE
JIM BEBERMEYER P. O. BOX 30008 LANSING, MI 48909	MICHIGAN DEPT OF EDUC	N	N	N	PRJCT MONITORING, SMALL STUDIES STAT, RFP ?
JOANN BROOKS 840 STATE ROAD, 46 BYPA BLOOMINGTON, IN 47405	VOCATIONAL EDUCATION SERVICES	Y	Y	N	DATABASE MANAGEMENT AND TRAINING
MICHELE CARR-HENDERSON BOX 1285 PYLE CENTER WILMINGTON, OH 45177	PROJ TALENTS/WIL COL	Y	N	N	EST TRACK/FILE SYS
SIDNEY CHARLES 1360 E SIXTH STREET CLEVELAND, OH 44114	CLEVELAND PUBLIC SCHOOLS	N	Y	N	INDEX FILE COURT REPORTS, EVAL, FILE STORE
JOHN CRUMPTON 4 W EDENTON ST. RALEIGH, NC 27605	NORTH CAROLINA DEPT OF LABOR	N	N	Y	ACCESS ERIC FROM PCS AND OTHER DATA BASES
SHARON FOX 7007 HAM-MIDD. ROAD HAMILTON, OH 45011	BUTLER COUNTY JVSD	N	N	N	DEC RAINBOW 100 SOFTWARE
STEVE FRANKS 207 PETRIE HALL AUBURN, AL 36849	AUBURN UNIVERSITY	Y	Y	N	SOFTWARE DEVELOPMENT
BETTY GRIGSBY P. O. BOX 60 GLOUCESTER, VA 23061	VOCATIONAL ECC	N	N	N	DATA BASE MANAGEMENT-ENROLLMENT
JERRY GROVER 250 EAST 5TH SOUTH SALT LAKE, UT 84111	UTAH ST DEPT OF EDUC	Y	N	N	DATA BASE MANAGEMENT
NANCY HARRIS 595 UNION STREET, NE SALEM, OR 97311	ORE OCC INFO COORD COMMITTEE	N	N	N	WORD PROCESSING BUDGETING

NAME, ADDRESS	ORGANIZATION	APPLE	IBM	TRS	INTEREST
CAROLINE KIRBY BOX 30008 LANSING, MI 48909	MICHIGAN DEPT OF EDUC	N	N	N	CROSS ANALYSIS OF DATA
GUS KOUREMETIS 1564 WEST FIRST AVE COLUMBUS, OH 43212	IDECC-THE OHIO STATE UNIVERSITY	Y	N	N	DATA BASE MANAGEMENT
CAROL LAUGHLIN 758 MARRETT ROAD LEXINGTON, MA 02173	MASS. VOC. CURRICULUM RESOURCE CENTER	Y	N	N	INSTRUCTIONAL SOFTWARE
RUTH LISTER 150 EAST 14TH ST, INDIANAPOLIS, IN 46202	JIST WORKS, INC	N	N	N	MAILING LIST MGT, MANAGEMENT REPORTS, EAGLEII
BARBARA LUCKNER-LOVELES 1776 UNIVERSITY AVENUE HONOLULU, HA 96844	WESTERN CURR. COORDINATION CENTER	N	N	N	
JOHN MACKENZIE 133 ERICKSON HALL EAST LANSING, MI 48823	MICHIGAN CAREER & VOC ED RES CTR	N	Y	N	WORD PROCESSING, SPREADSHEET DATA BASE MGMT
BEATRICE MELENDREZ 351 RIO COMMUNITIES BLV BELEN, NM 87002	VIPS PROJECT	Y	Y	Y	SOFTWARE FOR VOCATIONAL EDUCATION INSTRUCTION
[illegible] MIGUEL [illegible] KENNY ROAD COLUMBUS, OH 43085	NCRVE	N	Y	N	DATABASE MGT
[illegible] MILLER [illegible] IRONWOOD DRIVE [illegible]BUS, OH 43229	OHIO STATE UNIVERSITY	N	N	N	ADMINISTRATIVE USE
[illegible] MEEKS [illegible] E 11TH STREET AUSTIN, TX 78701	TEXAS EDUCATION AGENCY	N	N	N	INFORMATION MANAGEMENT
MARV PATTERSON FLORIDA STATE UNIVERSIT TALLAHASSEE, FL 32306	CENTER FOR STUDIES IN VOC. ED.	Y	N	N	NETWORKING

NAME, ADDRESS	ORGANIZATION	APPLE	IBM	TRS	INTEREST
ROBERT PAUGH BOX 25000 ORLANDO, FL 32751	UNIVERSITY OF CENTRAL FLORIDA	Y	N	N	RECORDS FOR STUDENTS
LESLIE PETERS 333 MARKET STREET HARRISBURG, PA 17108	DEPT. OF EDUCATION	Y	N	N	IDENTIFY VOC. SOFTWARE
JAMES PICKETT P. O. DRAWER 660 GALVESTON, TX 77553	GALVESTON IND SCH DIST	Y	N	N	INSTRUCTIONAL USE
VILA ROSENFELD 230 WINDSOR ROAD GREENVILLE, NC 27834	EAST CAROLINA UNIVERSITY	Y	N	Y	HOME EC ED, FINANCIALPLANNING, OLDER AMERIC
REINA ROYBAL 751 RIO COMMUNITIES BLV BELEN, NM 46202	UNIVERSITY OF NM-VALENCIA CAMPUS/VIPS	Y	N	Y	MANAGMENT OF OFFICE RECORDS/FORMS/BOOKEEPIN
JOYCE SAWATZKY [illegible] 7TH AVE [illegible]IER, [illegible] 74074	ST DEPT OF VOC ED	N	Y	N	PROGRAM SCHEDULING OFCURRICULUM PROJECTS
N STRAUBINGER [illegible]03 APALACHLE PKWY [illegible] LAHASSEE, FL 32301	CSVE,, LORIDA STATE UNIVERSITY	N	Y	N	MAILING LISTS
EARL THOMASON 601 D ST. NW, RM302B WASHINGTON, DC 20213	U.S.DEPT OF [illegible]BOR,, JOB CORP	N	N	N	MANAGEMENT INFORMATION SYSTEMS
ELLEN TOOPS P.O. BOX 69 LONDON, OH 43140	DEPT OF [illegible] CORRECTIONS	N	N	Y	DATA BASE MGT FOR CLASSROOM INSTRUCTORS
LAURIE USHER 2349 INDIANOLA AVE COLUMBUS, OH 43202	COOPERATIVE EXTENSION SERVICE	N	N	N	TELECONFERENCING,MARINE/ENVIR ED, 4-H AND
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A FRAMEWORK FOR LIFE-LONG ENTREPRENEURSHIP EDUCATION: THE MODEL

EDUCATION AND TRAINING STAGES	DEVELOPMENTAL NEEDS OF ENTREPRENEURS
Stage 1 Entrepreneurship career awareness; basic skills, and economic literacy	• to gain prerequisite basic skills • to identify career options • to understand free enterprise
Stage 2 Entrepreneurship interest and awareness	• to be aware of entrepreneurship competencies • to understand problems of employers
Stage 3 Creative application of occupational skills and entrepreneurship competencies	• to apply specific occupational training • to learn entrepreneurship competencies • to learn how to create new businesses
NEW VENTURE COMMITMENT	
Stage 4 Entrepreneurship venture development	• to become self-employed • to develop policies and procedures for a new or existing business
Stage 5 Long-term expansion/ redirection	• to solve business problems • to expand existing business effectively

UNITED STATES DEPARTMENT OF EDUCATION

POLICY STATEMENT

Entrepreneurship Education

The U.S. Department of Education recognizes the vital role small business plays in our economy. Today, there are approximately 14 million small businesses of which a r[illegible]portion are one-person or family-owned enterprises. Small businesses which [illegible] one or more persons generate most of the new jobs in the economy [illegible] is well recognized that entrepreneurial activity contributes significantly to economic development and, for many people, provides self-employment satisfactions.

The U.S. Department of Education recognizes the achievements in vocational education which, in various ways, have brought the entrepreneurial experience to many of our youth and have assisted small business owners to initiate, develop, and maintain their business ventures. These achievements provide a foundation for greater clarity of the role of vocational and adult education in bringing entrepreneurship education within the mainstream of education.

Entrepreneurship education takes many forms, depending upon the client group served: (1) young people in school who are considering small business ownership as a career option, and therefore, considered future entrepreneurs; (2) persons who are potential entrepreneurs and are ready to become self-employed; (3) those who are currently operating a small business; and (4) those whose work is or will be associated with the small business sector. For purposes of this policy statement, an entrepreneur is defined as an individual who undertakes self-directed initiatives and assumes personal risks in creating and operating a profit-oriented business.

The scope of entrepreneurship education is essentially multidisciplinary, beginning with the expectation that business owners must be well versed in the basic academic skills. Most of the self-employed base their enterprises around a particular occupational skill, which is often acquired through a vocational education curriculum. Traditional small business management concepts and practices are important components of entrepreneurship education. The development of personal characteristics and the encouragement of entrepreneurial traits are also key elements. It is apparent, then, that entrepreneurship education is delivered through infusion into existing courses and programs as well as separate specialized offerings.

It is the policy of the U.S. Department of Education to encourage the inclusion of entrepreneurship as an integral part of vocational and adult education and to support all endeavors which serve to increase the capacity of vocational and adult education to deliver education for entrepreneurship.

In keeping with this policy, the Office of Vocational and Adult Education will:

1. Give leadership to the development of entrepreneurship education.

2. Encourage the infusion of entrepreneurship concepts, essentially for career consideration, into all instructional programs in vocational and adult education.

3. Advocate the expansion of instructional programs specifically for entrepreneurship, especially at the postsecondary and adult levels of education.

4. Collaborate and cooperate with national associations and federal agencies concerned with the small business environment, including those which provide special assistance to women and minorities.

5. Identify and disseminate information about exemplary practices in entrepreneurship education.

6. Provide the States with suggested strategies for the promotion and implementation of entrepreneurship education.

7. Advocate the concept that the potential for entrepreneurial success is not limited by reason of age, sex, race, handicapping condition, or place of residence, and give special attention to those underrepresen in entrepreneurial fields; namely, women and minorities.

8. Maintain a communications network with various audiences in the public and private sectors in order to advance entrepreneurship education at State and local levels.

9. Document the scope of activities and achievements in entrepreneurship education.

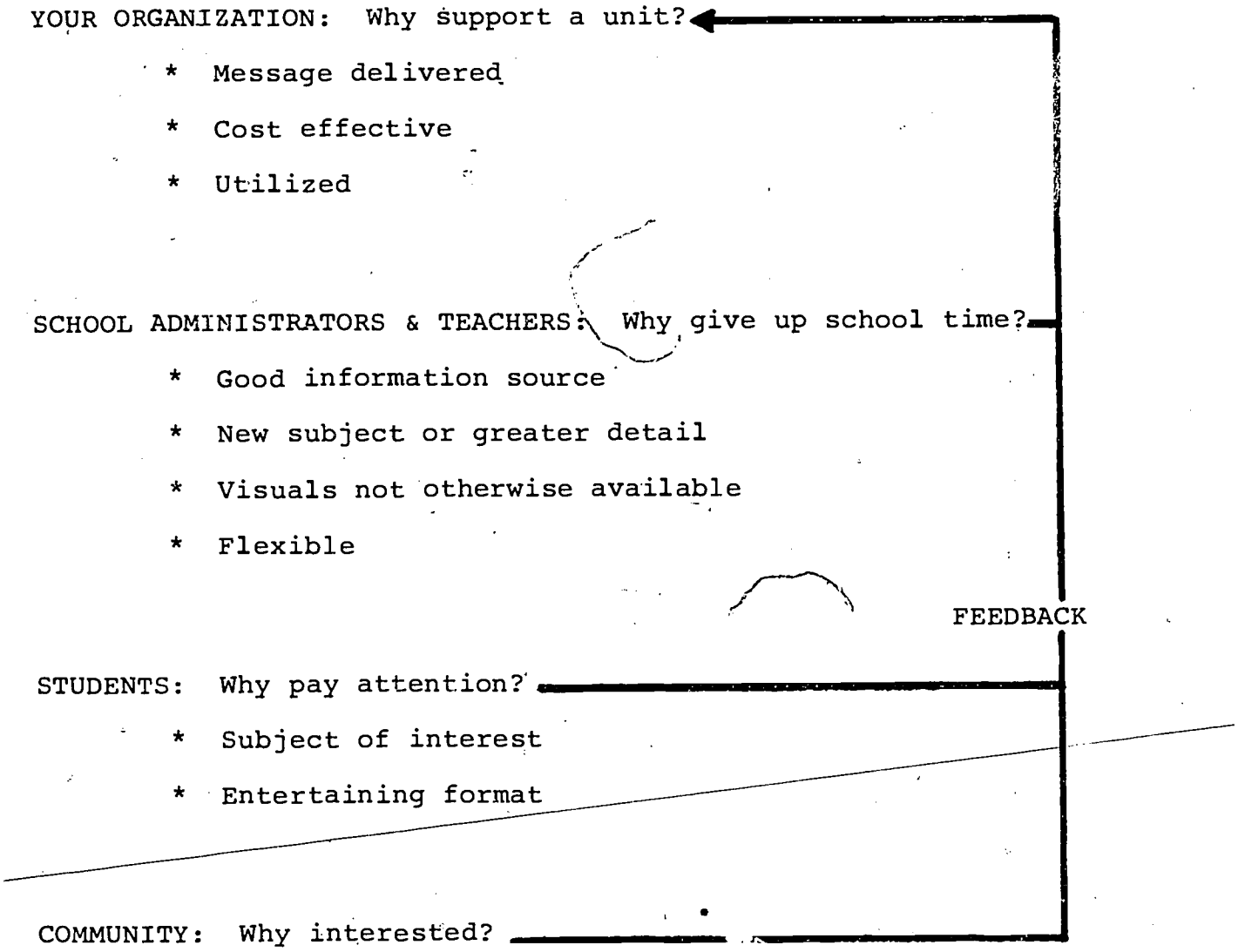
In making entrepreneurship education a focus of concern for vocational and adult education, the U.S. Department of Education believes that the quality and contributions of private enterprise will be enhanced. A new vision for entrepreneurship education, implemented by State and local initiatives, deserves the attention and support of all leaders and practitioners in American education.

T.H. Bell
Secretary of Education

Robert M. Worthington
Assistant Secretary for
Vocational and Adult Education

SEP 29 1983

MEETING NEEDS TO MAXIMIZE THE IMPACT OF A MOBILE EDUCATION UNIT



WORKSHEET FOR A PUBLIC HEARING

on

"Vocational Education Curriculum for Grades 1-3"

or

Topic of Your Choice

Dr. Ruth Volz Patton
East Central Network for
Curriculum Coordination
Sangamon State University, E-22
Springfield, IL 62708
217/786-6375

The purpose of this activity is to gain understanding of organizing and implementing a public hearing as an assessment means for curriculum concerns.

Rationale:

Recent articles, organizations and leaders of vocational education are suggesting that vocational education (not to be the same as career education) be implemented in the elementary grades. The decision is made to conduct a public hearing on "Vocational Education Curriculum for Grades 1-3."

Instructions:

As a group, plan a public hearing. This is a hypothetical situation requiring the use of projection, creativity, and imagination. Addressing the following questions will aid in the public hearing planning.

1. What would be the purpose of your hearing?

2. What audiences do you want represented as testifiers?

3. How would you contact the potential testifiers or how would you advertise the hearing?

4. What type of questions, issues, concerns would you want testifiers to focus on?

5. Where would the hearing be conducted?

6. Who would be the potential panel members?

7. How would you use information gleaned from the hearing?

8. How would you disseminate information gleaned from the hearing?

SOFTWARE LISTINGS AND REVIEW SOURCES

Compiled by:

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Menlo Park, CA 94025
(415) 323-3111

Dvorak's Software Review
704 Soland Avenue
Albany, CA 94706

Dymax Books
Box 310
Menlo Park, CA 94025

Educational Computer Magazine
Box 535
Cupertino, CA 95015
(408) 252-3224

Educational Computing
MAGSUB Ltd., Oakfield House
Perry [illegible]., Haywards Heath
Suss[illegible] 3DH
ENGL[illegible]

Educ[illegible]echnology
140 Sylva[illegible]nue
Englewood[illegible]fs, NJ 07632
(201) 871-[illegible]

Education Computer Systems Group
PK3-1/M40
129 Parker Street
Maynard, MA 01754

EDUCOM Bulletin
Interuniversity Communication Council
Box 364, Rosedale Road
Princeton, NJ 08540
(609) 734-1915

80 Micro
Subscription Dept.
Box 981
Farmingdale, NY 11737

Electronic Education
Electronic Communications, Inc.
1311 Executive Center Drive
Suite 220
Tallahassee, FL 32301
(904) 878-4178

Electronic Learning
730 Broadway
New York, NY 10003
(212) 505-3000

Electronic Learning
902 Sylvan Avenue
Englewood Cliffs, NJ 07632

EPIE Micro-courseware Pro/Files.
EPIE and Consumers Union
Box 620
Stony Brook, NY 11790
(516) 283-4922

ETC.
Far West Laboratory
855 Folson Street
San Francisco, CA 94103

Games
Box 10145
Des Moines, IA 50340

Hands On!
Technical Education Research Centers
8 Eliot Street
Cambridge, MA 02138
(617) 547-3890

Home and Educational Computing
Box 5406
Greensboro, NC 27403

HunRRO Computer Literacy News
Human Resources Research Organization
300 N. Washington Street
Alexandria, VA 22314
(703) 549-3611

InCider Magazine
Wayne Green, Inc.
Box 911
Farmingdale, NY 11737
(800) 285-5473

Information Management
PTN Publishing Corp.
101 Crossways Park West
Woodbury, NY 11797

InfoWorld
530 Lytton Avenue
Palo Alto, CA 94301
(415) 328-4602
(800) 227-8365

Innovator
Intel Corporation Educational Products Group
SC5-784, 3065 Bowers Avenue
Santa Clara, CA 95051
(408) 987-5040

Instructional Innovator
AECT
1126 Sixteenth Street NW
Washington, DC 20036
(202) 833-4180

Interface: The Computer Education Quarterly
Attn: Stephen Mitchell, Publisher
915 River Street
Santa Cruz, CA 95060
(408) 425-3851

INTERFACE AGE
Attn: Melinda Fehlen
Circulation Manager
16704 Marquardt Avenue
Box 1234
Cerritos, CA 90701
(213) 926-9544

JEM Reference Manual
JEM Research
Discovery Park
University of Victoria
Box 1700
Victoria, B.C. V8W 2Y2
CANADA

Journal of Apple Courseware Review
The Apple Foundation
Box 28426
San Jose, CA 95159

Journal of Computer-Based Instruction
ADCIS, Computer Center
Western Washington University
Bellingham, WA 98225

Journal of Computers, Reading and Language Arts
CRLA, Box 13039
Oakland, CA 94661

Journal of Computers in Mathematics and Science Teaching
Box 4455
Austin, TX 78765

Journal of Computers in Science Teaching
Box 4825
Austin, TX 78765

Journal of Courseware Review
The Apple Foundation
2025 Mariani Avenue
Cupertino, CA 95014
(408) 996-1010

Journal of Data Education
Attn: G. Daryl Nord
College of Business Admin.
Oklahoma State University
Stillwater, OK 74078
(405) 624-5064

Journal of Educational Technology Systems
Baywood Publishing Company, Inc.
Attn: A. Quinn
120 Marine Street, Box D
Farmingdale, NY 11735
(516) 293-7130

Library Hi Tech
103 High Street
Armonk, NY 10504
(914) 666-4099

Lifelines/The Software Magazine
1651 Third Avenue
New York, NY 10028

The LOGO and Educational Computing Journal
Suite 219, 1320 Stony Brook Rd.
Stony Brook, NY 11790
(516) 751-5139

MACUL Journal
c/o Larry R. Smith
Box 807
Wayne, MI 48184
(313) 326-9300

Mathematics Teacher
N.C.T.M.
1906 Association Drive
Reston, VA 22091
(703) 620-9840

MECC Data Line
Attn: Shirley Griffing
Editor
2520 Broadway Drive
St. Paul, MN 55113

Media and Methods
American Society of Educators
Attn: Ann Caputo
1511 Walnut Street
Philadelphia, PA 19102
(215) 563-3501

MICRO
Micro Ink, Inc.
34 Chelmsford Street
Box 6502
Chelmsford, MA 01824
(617) 256-5515

Microcomputer Digest
(CEO Associates)
Attn: Barbara Nadler
201 Route 516
Old Bridge, NJ 08857
(201) 679-1877

Microcomputer Index
2646 El Camino Real #247
Santa Clara, CA 95051
(408) 984-1097

Microcomputer News
Benwill Publishing Company
1050 Commonwealth Avenue
Boston, MA 02215

Microcomputers in Education
QUEUE
5 Chapel Hill Drive
Fairfield, CT 06432

Microcomputing
Editorial Offices
80 Pine Street
Peterborough, NH 03458
(603) 924-9471

Micro. . .Publications in Review
Vogeler Publishing, Inc.
455 Crossen Avenue
Elk Grove Village, IL 60007
(312) 228-0951

Mico Media Review
Box 425
Ridgefield, CT 06877

Mini-Metro Systems
Cahners Publishing Co.
Attn: Adrienne DeLeonardo
221 Columbus Avenue
Boston, MA 02116
(617) 536-7780

Mini-Micro Systems
Box 5051
Denver, CO 80217

Micro-Scope
JEM Research
Discovery Park
University of Victoria
Box 1700
Victoria, B.C. V8W 2Y2
CANADA

Micro-SIFT Reviews
Northwest Regional Educational Laboratory
300 S.W. Sixth Avenue
Portland, OR 97204

Nibble
Attn: Johanna Van Doren
Box 325
Lincoln, MA 01773
(617) 259-9710

Online
Attn: Jenny Chase Pemberton
11 Tannery Lane
Weston, CT 06883
(203) 227-8466

Output
666 Fifth Avenue
New York, NY 10103

PC World
P. O. Box 6700
Bergenfield, NJ 07621

PC World Communications, Inc.
555 DeHavo Street
San Francisco, CA 94107

The Paper
Box 460
Livingston Manor, NY 12758

Peelings II
Box 188
Las Cruces, NM 88004
(505) 526-8364

Personal Computer World
c/o Steve England
41 Rathbone Place
London W1P 1DE
ENGLAND
(01) 637-7991

Personal Computing
Box 1408
Riverton, NJ 08077

Pet Users Club Newsletter
Commodore Business Machines
3330 Scott Blvd.
Santa Clara, CA 95051

Pipeline
CONDUIT
Box 388
Iowa City, IA 52244
(319) 353-5789

Popular Computing
Box 328
Hancock, NH 03449
(603) 924-9281

PROG/80
Box 68
Milford, NH 03055

Programmed Learning & Ed. Techn.
Kogan Page Educational Publications
120 Pentonville Road
London, ENGLAND

Purser's Atari Magazine
Box 466
El Dorado, CA 95623

Purser's Magazine
Box 466
El Dorado, CA 95623

The Rainbow
Magazine for Color Computer Users
9529 U.S. Highway 42, Box 209
Prospect, KY 40059
(502) 228-4492

Recreational Computing
Box E
Menlo Park, CA 94025

School Courseware Journal
c/o School & CourseWare, Inc.
1341 Bulldog Lane, Suite C-J
Fresno, CA 93710
(209) 227-4341

School Library Journal
1180 Avenue of the Americas
New York, NY 10036

School Microcomputer Bulletin
Learning Publications, Inc.
Attn: Darina Downing
Managing Editor
Box 1326
Holmes Beach, FL 33509

School Microwave Reviews
Dresden Associates
Box 246
Dresden, ME 04342
(207) 737-4466/549-5794

Silicon Gulch Gazette
Computer Faire
345 Swett Road
Woodside, CA 94062
(415) 851-7077

Simulation/Gaming
Box 3039
University Station
Moscow, ID 83843

Small Computers in Libraries
Graduate Library School
University of Arizona
1515 East First Street
Tucson, AZ 85721
(602) 626-3566

Small Systems World
Hunter Publishing Company
950 Lee Street
Des Plaines, IL 60016
(312) 296-0770

Softline
Box 60
North Hollywood, CA 91603

SOFTALK
11021 Magnolia Blvd.
North Hollywood, CA 91601

Softside
Box 68
Milford, NH 03055

The Software Critic
Box 3ch
University Park, NM 88003
(505) 522-5232

Software Review
Meckler Publishing
520 Riverside Avenue
Westport, CT 06880
(203) 226-6967

Southeastern Software Newsletter
7270 Culpepper Drive
New Orleans, LA 70126

Sync
39 E. Hanover Avenue
Morris Plains, NJ 07950

TALMIS Newsletter
Attn: Mary O'Keefe
115 North Oak Park Avenue
Oak Park, IL 60301
(312) 848-4000

Teaching and Computers
Scholastic, Inc.
902 Sylvan Avenue, Box 2001
Englewood Cliffs, NJ 07632

Teaching Computer Programming
1112 Glacial Drive
Minot, ND 58701

T.H.E. Journal
Box 992
Action, MA 01720
(617) 263-3607

TRS-80 Microcomputer News
Tandy Corporation
Attn: David M. Balmer
Manager
Box 2910
Ft. Worth, TX 76113

Watnews
Computer Systems Group
University of Waterloo
Waterloo, Ontario N2L 3G1
CANADA
(519) 885-1211

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

VOCATIONAL INSTRUCTIONAL SOFTWARE EVALUATION

A SYSTEM FOR EVALUATING MICROCOMPUTER INSTRUCTIONAL SOFTWARE FOR VOCATIONAL EDUCATION

PROJECT PROFILE

THE I. 'ED

The development of microcomputer software for instructional programs is accelerating rapidly. Evaluation of this software is being conducted by diverse organizations and by individual reviewers. An evaluation system is needed that focuses on instructional software for vocational and technical education. This system will influence developers to address the specific needs of vocational and technical education and assist vocational educators in selecting appropriate software for instruction.

PROJECT

A System for Evaluating Instructional Software for Vocational Education is a project being conducted at the National Center from June 1, 1983 through February 29, 1984. Specific objectives of the project are to--

- review the literature on software evaluation,
- identiy existing vocational and technical education software and acquire it for review,
- adapt or develop a system for evaluating microcomputer software for vocational and technical education,
- pilot-test the evaluation system,
- promote the system within the vocational and technical education community.

A panel of software developers and evaluators will assist project staff in developing the evaluation system. A second panel, comprised of practitioners and potential users, will review the proposed system and make recommendations. The pilot test will be conducted at the National Center using the software acquired.

Assistance also will be sought in the vocational and technical education community from the curriculum coordination centers, state liaison representatives, Postsecondary Alliance, and local school districts to help project staff in the following ways:

- Identify software developed for use in vocational and technical programs
- Provide software for review
- Share evaluation criteria or instruments used in selecting software
- Submit suggestions for developing the evaluation system

RESULTING PUBLICATIONS/EXPECTED OUTCOMES

The evaluation system (instrument and support materials) will be included in the final project report.

AUDIENCE

The evaluation system is intended for vocational and technical educators, software developers, and persons conducting software reviews.

SPONSORSHIP

This activity is sponsored by the Office of Vocational and Adult Education, U.S. Department of Education.

To obtain or contribute information, contact Dr. Shirley A. Chase, project director, at the National Center (address below), or use the Message Switching Terminal Address: TB80.

7/83

FOR FURTHER INFORMATION, CONTACT
THE NATIONAL CENTER PROGRAM INFORMATION OFFICE
TEL: (614) 486-3655 OR (800) 848-4815
CABLE: CTVOCEDOSU/COLUMBUS,OHIO

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 KENNY ROAD • COLUMBUS, OHIO 43210

Curriculum

The following courses make up the curriculum

	Credits
General Education	
College Writing	3
Technical Communications	3
Applied Math	3
Technical Math I	3
Economics	3
Technical Physics	4
Industrial Psychology	3
Major	
Pressurized Water Reactor Information*	2
Radiological Education Maintenance*	2
Introduction to Nuclear Quality Assurance	3
Product Line Classroom Training*	3
Blueprint Reading	2
Introduction to Electronics	3
Applied Hydraulics and Pneumatics	3
Shop Safety	2
Electives**	
Problem Solving and Decision Making and Planning*	2
Management Techniques for Professional Personnel*	3
Assertive Communication*	3
Professional Skills Development Workshop*	3
Co Op Ed 1 (NSID Product Line Competencies)*	3

	Credit
Electives continued**	
Co-Op Ed 2 (NSID Product Line Competencies)*	3
Electronic Devices	4
D.C. Circuits	4
A.C. Circuits	4
Electronics III - Electronic Devices	4
Electronics IV - Linear Electronics	4
Electronic Measurements	4
Health Fitness	3
General Psychology	3
Human Relations	3
Welding (Introduction)	4
Technical Math II	3
General Electives	4-6

*Westinghouse requires this course for service employes; it is taught during working hours

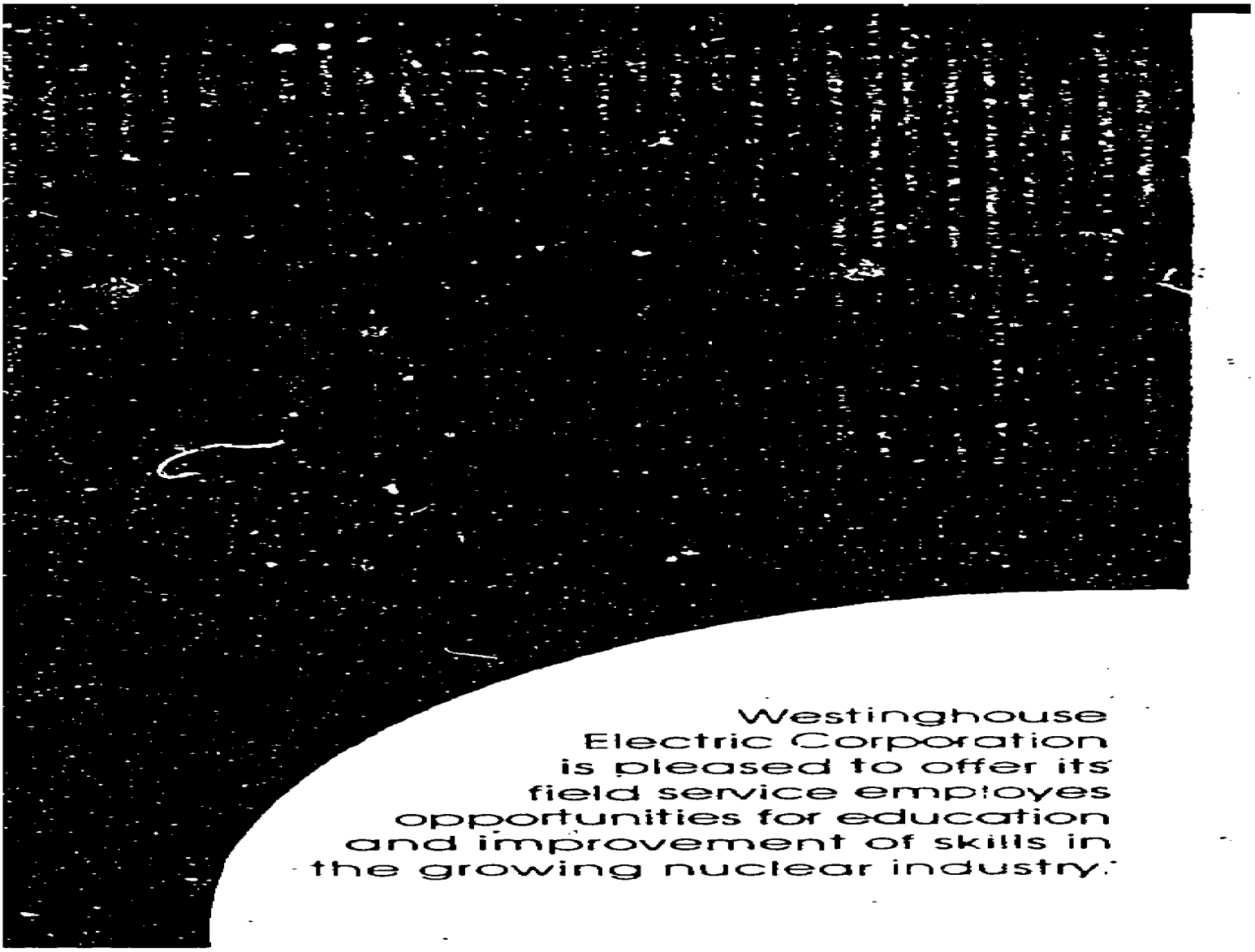
**The courses listed are a sample of the electives offered See the college catalogue for a complete listing Electives offered are subject to change

Enrollment

NSID service personnel may indicate their interes in enrolling in the associate degree program to thei managers or to the NSID training coordinator. They may also contact

Westmoreland County Community College
Admissions Office
Youngwood Campus
Armbrust Road
Youngwood, PA 15697
Telephone (412) 925-4000

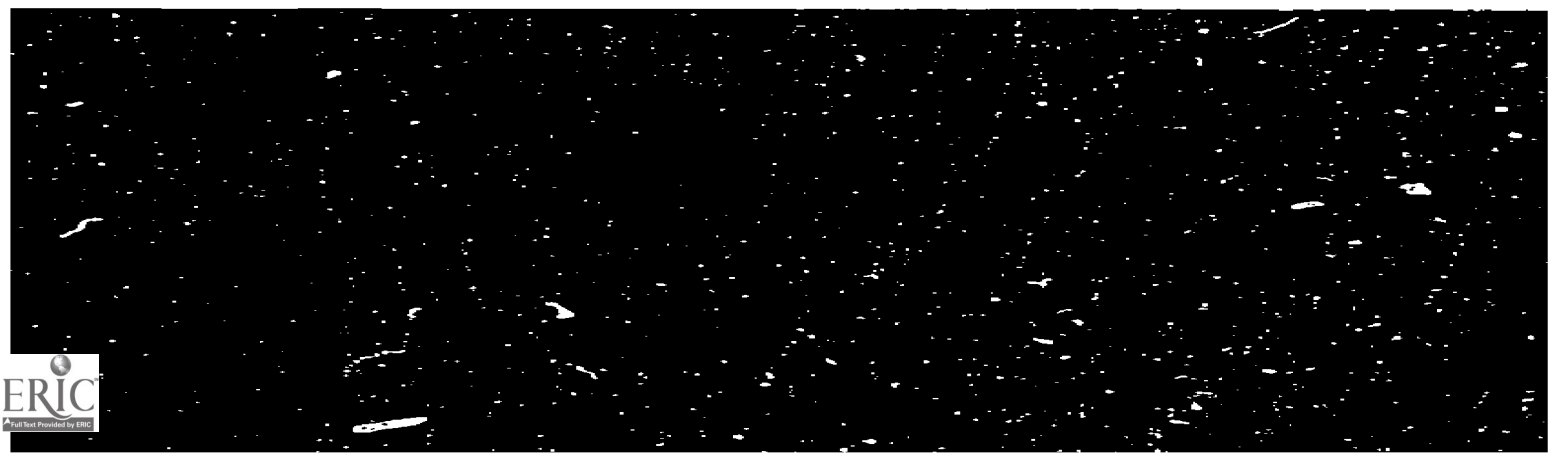
20798 12262

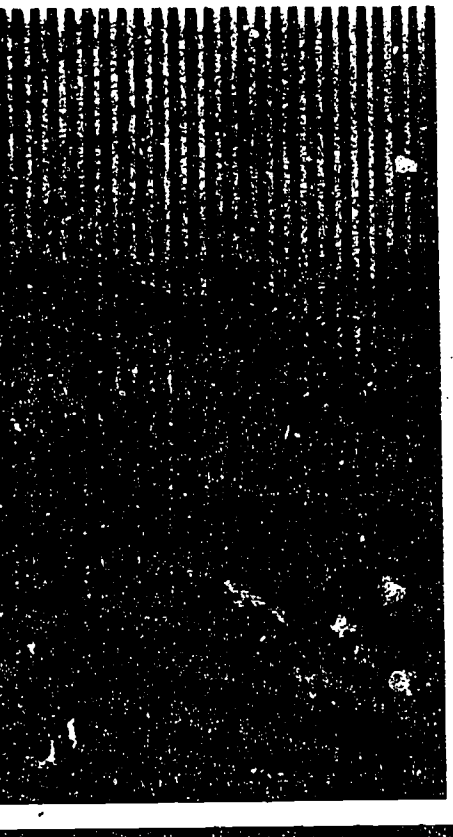


ociate Degree
gram In Nuclear
vice Technology

ghouse Electric Corporation
ıoreland County Community College

106





lures of the Program

am for an Associate Degree in Nuclear echnology has been developed for West- NSID field service personnel through the ive efforts of Westinghouse Electric Corpo- d Westmoreland County Community Col- program is tailored to meet the needs of ar field service employe It features flexible g, self-study lessons, and college credit for equired and taught by Westinghouse.

s and Answers

the advantages of having an associate

ciate degree demonstrates a high level of nce and indicates that recipients have the etermination, and self-discipline to im- ir skills and abilities The degree enhances s' opportunities for promotion. It is an advon- people competing in the job market.

How can employes who travel most of the time attend college classes?

When employes are out of town, they are not required to attend scheduled classes. Instead course work is presented in a format suitable for self-study The employes study while they're in the field, before and after work. In special cases, they can even take exams while on site When employes return, they resume class attendance

Who helps students when they have questions?

The instructor meets with each student at appointed times convenient to both The instructor answers questions, evaluates completed assignments, and discusses progress in the program Also, a tutor is available at the student's home site

Do employes get credit for their on-the-job experience?

Yes, credit for Westinghouse training, required for NSID personnel applies toward the associate degree Westinghouse courses make up more than one-fourth of the credits needed for graduation.

Many employes haven't taken a college-preparatory program in high school. Do they qualify for the associate degree program?

Yes high school graduates with a general preparation do qualify A test is given to determine the appropriate placement of each student in the program Classes to improve basic skills are available

Who pays for the program?

Tuition is paid by Westinghouse according to the terms of the Tuition Reimbursement Program

How long does it take to earn the associate degree?

The time required to finish the degree depends upon the number of courses a student takes each semester and on his background An employe with some college credits, who studies conscientiously, might finish in 2 1/2 to 3 years The average leng about 5 years Each student sets the pa and can take as long as necessary to ea ciate degree

How hard is it to earn the degree?

The difficulty for each person will vary; ho discipline and good study habits are cr successful completion of the program from work must be devoted consisten With this kind of dedication, the deg obtained without great difficulty.

Self-Study

Self-study provides an optimum metho for service personnel, who travel freque unable to attend regularly scheduled cl study, lessons and exercises are preser information can be learned without dire an instructor When help is needed, h instructor, tutor and others taking the available to help

Self-study does require that students disc selves to study on a regular basis Conc the material to be learned and frequer more important in a self-study course th tional college class

Degree Requirements

To qualify for the Associate Degree in vice Technology, a student must earn a a grade point average of at least 2.0 credits must be distributed as follows:

- General Education
- Major
- Electives or additional credits required for graduation

Delivery Mode:

Oregon uses a combination of computer produced hard copy to deliver its Occupational Program Planning System. OPPS produces state and local demand/supply reports and a variety of technical publications. Increasing emphasis is being placed on "customized" information reports for individual data users and specific groups. Products are printed on the laser printer, saving significant amounts of time and money over conventional printing methods.

Training:

Training has taken a variety of forms in Oregon -- large group, small group, interagency and by organization. Given the volume of printed information available, distinct preferences have arisen for small group training sessions. Interagency training, while logistically somewhat more complicated, has advantages in promoting understanding and reducing costs. Training sessions are activity oriented, with participants working in groups of two to three, locating information from several publications and doing a local demand/supply analysis.

The regional coordinators for career and vocational education serve as a primary link to local administrators. Regional coordinators may conduct training sessions for local administrators on the uses of OPPS data resources, answer their information requests directly or seek assistance from OPPS staff on complex requests. Local Employment Division labor economists are the primary links to Job Training Partnership Act service delivery areas.

Information Uses:

A recent evaluation report identified as many as 700 OPPS users in over 100 organizations statewide. In addition to planning, OPPS is used as an aid to curriculum development through the Dictionary of Occupational Titles Data Display. Within the economic development community, OPPS is an asset to site selection as it describes the unemployed and educational supply in an area. OPPS data play a key role in the analysis of applications from Oregon firms for Industrial Revenue Bonds approved by the Economic Development Commission. The Employment Division uses OPPS data to screen applicants for the state's Vocational Education-Unemployment Insurance program, whereby dislocated workers can receive approved training and continue to collect unemployment benefits.

For further information, contact Nancy Hargis, Oregon SOICC Director, at (503) 378-8146.

Notes:

WORKSHEET ON BUSINESS & INDUSTRY ADVISORY COUNCIL

1. What ingredients make an effective council?

2. Identify 3 strengths of a council.

3. Identify a vocational education program to be served by an effective council.

4. Identify qualities needed in a working council member.

5. List all local key businesses and industries that should be represented on your council.

6. What needs to be done to initiate and implement the council? (Contacts, orientation, assignments, etc.)

7. When will you do this?

8. How might your intentions be sabotaged?

9. How much time will you allow yourself to reach your plans in number 6?

10. What action will you take to maintain the effectiveness of your council?

APPENDIX B: CONFERENCE PARTICIPANTS

PARTICIPANTS

THE SIXTH NATIONWIDE VOCATIONAL EDUCATION DISSEMINATION CONFERENCE

November 15-17, 1983

(With special interests listed as available)

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Microcomputing Revolution

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Education Research Consultant/RCU
Michigan Department of Education
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Lansing, MI 48909
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Assistant Information Specialist
Vocational Education Services
Indiana University
Bloomington, IN 47405
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Software Evaluation

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North Central Technical College
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Database Management
Software Evaluation

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Vern Riffe Joint Vocational School
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Computer Applications in Education

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Public Information Manager
Project Talents
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Pyle Center, Wilmington College
Wilmington, OH 45177
(513) 382-6661, Ext. 289
Microcomputers in Dissemination
Word Processing for Publication
Design
Keyword Analysis
Filing Systems and Databases

Audrey Casperson
Instructor/Employment Counselor
Consultants for Lifelong Learning
3151 Jacks Run Road
McKeesport, PA 15131
(412) 673-6363
- Adult Teaching Techniques
- Learning Styles
- Career Counseling for Adults
- Grant Writing

Beverly Chapman, Program Director
Computer Programmer Training
Valencia Community College
P.O. Box 3028
Orlando, FL 32802
(305) 299-5000
- Business/Education Partnerships
- Educational Programming for Disabled

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Cleveland, OH 44114

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Cleveland Heights, OH 44118
- Planning--Future Oriented
- B&I Linkages
- Social Payoff of Voc Ed

Joseph Cohen, Director
Planning & Marketing
PREP, Inc.
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Trenton, NJ 08638
(609) 882-2668

Currin M. Cooley, Senior Associate
Michigan Career Education & Vocational Education Resource Center
Michigan State University
East Lansing, MI 48824
(517) 353-4397
- Leadership Development
- Quality of Work Life
- Organizational Behavior
- Organizational Transformation
- Education & Productivity
- Ethnographic Research

Harold Cramer, Coordinator
Center for Studies in Vocational Ed.
Florida State University
Tallahassee, FL 32306
(904) 488-0405
- Use of A-V (including TV) for Dissemination
- Use of Computer and Computer Networks for Dissemination

James Crock, Guidance Counselor
Shaker Valley Branch Campus
Lebanon Correctional Institution
P.O. Box 56
Lebanon, OH 45036
(513) 932-1211

John Crumpton, Jr., Director
Apprenticeship Division
North Carolina Department of Labor
Raleigh, NC 27601
(919) 733-7533
- Voc Ed/Apprenticeship Linkages
- P.C. Software to Talk to Center Data Bases
- Curriculum for Apprenticeship-Related Instruction
- The Other Half of Voc Ed--Apprenticeship and OJT
- Alternatives to Institutional Training (self-done)
- How to Easily Get at What's "Out There"

Jacqueline L. Cullen, Section Head
PA Department of Education
Bureau of Vocational Education
Harrisburg, PA 17108
(717) 783-8506

Carol Culpepper, Staff
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133 Erickson Hall
Michigan State University
East Lansing, MI 48824
(517) 353-4397
- Career Changes
- Career Development
- Leadership Styles
- Publicity
- Writing for Publication
- Evaluation

Edgar Dale, Professor Emeritus
Educational Foundations & Research
139 Ramseyer Hall
29 West Woodruff Avenue
Columbus, OH 43210
(614) 422-5181

William Dunn, Director
Univ. Program for the Study of Knowledge Use
University of Pittsburgh
2-J 28 Forbes Quadrangle
Pittsburgh, PA 15260
(412) 624-3629

Edward G. Flegel, Evaluation Manager
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Cleveland Public Schools
10308 Baltic Road
Cleveland, OH 44102
(216) 961-4640
- Making use of Data Gathered During Vocational Evaluation

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- Networking
- Evaluation of Software

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- Curriculum Networks
- Curriculum Development Funding
- Entrepreneurship
- Implementing CBE
- Mastery Learning
- Computer Support of Curriculum

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- Materials for Corrections
- Data Processing

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(804) 225-2100
- Introduction to Microcomputers in Dissemination
- Issues and Problems in Dissemination
- Evaluating Microcomputer Software
- Using Various Databases
- The Social Payoff of Vocational Education
- New Delivery Systems and Technology

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- Economic Development
- Retraining

Jerry Grover, Specialist
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