

DOCUMENT RESUME

ED 306 506

CG 021 639

TITLE Education for Career Development Project. December 1985-November 1988. Final Report.

INSTITUTION Appalachia Educational Lab., Charleston, W. Va.; Virginia Polytechnic Inst. and State Univ., Blacksburg.

SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.

PUB DATE Dec 88

CONTRACT IEO-86-0001

NOTE 74p.

AVAILABLE FROM Appalachia Educational Laboratory, Inc., P.O. Box 1348, Charleston, WV 25325 (\$6.00).

PUB TYPE Reports - General (140)

EDRS PRICE MF01/PC03 Plus Postage.

DESCRIPTORS \*Career Development; \*Career Guidance; Delivery Systems; \*Inservice Education; \*Research and Development; School Guidance; Secondary Education

ABSTRACT

This document presents the final report on the Education for Career Development program, a 3-year project developed by the Appalachia Educational Laboratory and Virginia Tech. A project overview describes how the program used counselor education/teacher education/administrator education as a preservice approach for developing attitudes, knowledge, and skills in counselors, teachers, and administrators. It notes that the training focused on maximizing school personnel's career guidance efforts on behalf of the secondary school students they would serve, and that the overriding goal of the project was to refocus preservice education programs upon developing a coordinated role for the delivery of career guidance information and services to students. The project is described as focusing on developing a model career development center; experiences and materials to be included in teacher, counselor, and administrator courses; and collaborative activities to enhance understanding and working relationships among the three groups. It is concluded that these project goals were accomplished during a 3-year period with an end product of project information available for dissemination to other institutions. A section on project development chronicles activities which took place in each of the 3 years of the project. A list of advisory committee members, sample letters to publishers and a project overview, a list of competencies, and the script for a slide/tape presentation and related project materials are appended.

(NB)

\*\*\*\*\*  
 \* Reproductions supplied by EDRS are the best that can be made \*  
 \* from the original document. \*  
 \*\*\*\*\*

ED 306 506

FINAL REPORT

EDUCATION FOR CAREER DEVELOPMENT PROJECT  
December 1985 - November 1988

December 1988

CG 021639

Virginia Tech  
Blacksburg, Virginia

and

Appalachia Educational Laboratory  
Charleston, West Virginia

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Marilyn Slack

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) "

FINAL REPORT  
EDUCATION FOR CAREER DEVELOPMENT PROJECT  
December 1985 - November 1988

December 1988

Virginia Tech  
Blacksburg, Virginia

and

Appalachia Educational Laboratory  
Charleston, West Virginia

3

BEST COPY AVAILABLE

The Appalachia Educational Laboratory (AEL), Inc., works with educators in ongoing R & D-based efforts to improve education and educational opportunity. AEL serves as the Regional Educational Laboratory for Kentucky, Tennessee, Virginia, and West Virginia. It also operates the ERIC Clearinghouse on Rural Education and Small Schools. AEL works to improve:

- professional quality,
- curriculum and instruction,
- community support, and
- opportunity for access to quality education by all children.

Information about AEL projects, programs, and services is available by writing or calling AEL, Post Office Box 1348, Charleston, West Virginia 25325; 800/624-9120 (outside WV), 800/344-6646 (in WV), and 347-0400 (local).

This publication is based on work sponsored wholly or in part by the Office of Educational Research and Improvement, U.S. Department of Education, under contract number 400-86-0001. Its contents do not necessarily reflect the views of OERI, the Department, or any other agency of the U. S. Government.

AEL is an Affirmative Action/Equal Opportunity Employer.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION . . . . .	1
PROJECT OVERVIEW . . . . .	3
PROJECT DEVELOPMENT . . . . .	5
Year One . . . . .	5
Year Two . . . . .	8
Year Three . . . . .	9
SUMMARY . . . . .	11

APPENDICES

- A: List of Advisory Committee Members
- B: Sample Letters to Publishers and Project Overview
- C: List of Competencies
- D: Slide/Tape Script and Related Project Materials

## INTRODUCTION

Over the past decade and a half, major efforts have been made to improve career guidance services and programs in our nation's schools through R & D initiatives at the federal and state levels. Practically all of this effort focused upon implementation at the local level requiring massive inservice programs. This approach involved counselors with limited skills in working with instructional staff, curriculum supervisors with little or no background in career development theory or practice, and administrators faced with a multitude of other issues such as school reform and improvement. In addition, many of the career guidance efforts during this period were special projects that depended heavily on external funding or required the expertise of an individual in order to continue.

External funding diminished and the national focus shifted from the career education emphasis in the 1970s to a return to the basics and academics in the 1980s. However, the career guidance needs of youth and adults did not diminish. To meet these needs in the next decade will require a renewed commitment and a different approach.

In an effort to meet these needs, the Appalachia Educational Laboratory (AEL) and Virginia Tech developed a three-year project entitled "Education for Career Development."

## PROJECT OVERVIEW

The Education for Career Development (ECD) project utilized Counselor Education/Teacher Education/Administrator Education (CE/TE/AE) as a preservice approach for developing attitudes, knowledge, and skills in counselors, teachers, and administrators. The training focused on maximizing their career guidance efforts on behalf of the secondary school students they would ultimately serve. This approach was designed to strengthen CE/TE/AE programs and develop a collaborative relationship between AEL and regional CE/TE/AE institutions. Virginia Tech, a regional CE/TE/AE institution, was selected for the development and testing of ECD materials.

The overriding goal of the ECD project was to refocus preservice education programs upon developing a coordinated role for the delivery of career guidance information and services to students. Through integrated activities in the CE/TE/AE programs, three objectives would be met. First, counselors would develop inservice education skills in working with teachers and administrators. Teachers also would develop skills in infusing career information into subject matter to provide the student a more relevant relationship between education and work. Finally, administrators would become more aware of program needs. The realization of these three objectives would build better understanding and support for the role of integrated career guidance activities as part of the total school program.

One of the deterring elements in CE/TE/AE programs, as related to career guidance, is the lack of appropriate career information, guidance resources, and experiences in using these resources as part of preservice

training. Another deterring element is the omission of coordinated experiences involving counselors with teachers and administrators as part of counselor training experiences. Also, career guidance information is rarely included in teacher education subject matter content courses or in methods and other related courses.

The ECD project focused on developing a model Career Development Center; experiences and materials to be included in teacher, counselor, and administrator courses; and collaborative activities to enhance understanding and working relationships among the three groups. These project tasks were accomplished during a three-year period with an end product of project information available for dissemination to other CE/TE/AE institutions.



## PROJECT DEVELOPMENT

### Year One

The initial phase of the project began in late 1985. A project plan was developed, and an institutional agreement with Virginia Tech was formalized.

As part of the planning process, AEL and Virginia Tech established an external ad hoc advisory committee to provide recommendations from the field. The external committee focused primarily on the model Career Development Center. Representatives from Virginia's large city systems, middle size districts, and rural schools were included on the committee as well as representatives from the state education department. (See Appendix A for a list of advisory committee members.)

The ECD external advisory committee held their first meeting on March 7-8, 1986, in Blacksburg, Virginia. The purpose of the meeting was to assist the internal advisory committee, comprised of representatives from AEL and Virginia Tech, with project planning and design. The internal committee decided to meet at least once a month for the duration of the project.

The first major task during the first year of the project was the establishment of the model Career Development Center. An existing facility was used as the model center. The Virginia Tech Employee Career Development program and the Counselor Education program shared a career resource center located in Room 210 of the University City Office Building. This career resource center was modified and expanded for use by the total College of Education.

The room was arranged into four topical areas for career information: "Self-Assessment," "Educational and Occupational Information," "Taking Action," and "Life Management." Personal computers, including two Apple II+'s, a Tandy TSR 80, and an IBM-compatible Zenith were available in each of the career information areas, as were printers for these computers. Audiovisual equipment in the center included an overhead projector, a sound filmstrip projector, a microfiche reader, a slide projector, and video cassette players for both 1/2" and 1/4" tapes.

A graduate intern was assigned to the project as the center coordinator during the initial development stages. As a first step, staff cataloged and classified existing resources to determine what additional materials would be needed.

The next step involved reviewing publishers' catalogs and other sources of career development materials. AEL and Virginia Tech did this review separately and then combined sources. During the American Vocational Association convention in December 1986, Carl McDaniels and David Winefordner, co-directors of the project, visited exhibitors, talked with publishers, and collected catalogs and other brochures. McDaniels and Winefordner also contacted publishers exhibiting at other conventions to request complimentary materials for the center. During one of those meetings, staff made initial contact with the Canadian Systems Group regarding the donation of their computerized program, "CHOICES."

In addition to conference contacts with publishers, staff reviewed catalogs a second time to establish a list of publishers. This list was entered into a microcomputer system at Virginia Tech, and mailing labels

were generated. Staff sent a letter, including a brief project overview, to major publishers requesting their latest catalogs and complimentary materials. (See Appendix B for the project overview and examples of letters sent to specific publishers.) This effort resulted in donations of over \$6,000 in career materials that included printed materials, software, movies, sound filmstrips, and videotapes.

As materials were obtained for the center, the question of organization arose. A software system for filing/classification/retrieval of materials was considered; however, costs proved prohibitive. Instead, demonstration models of various systems were set up, such as the Statewide Career Information Delivery System, Virginia VIEW (Vital Information for Education and Work). A national computerized system, CHOICES, the Chronicle Occupational Library, an alphabetic filing of loose-leaf materials, a worker trait group filing system, and a general orientation/topical approach also were included. Using the topical approach, materials were organized to address school subject, occupational information sources, exploration via micro-computer and other sources, self-assessment, educational planning, career clusters, leisure, job search, decisionmaking, curriculum materials and career guidance, and life management. The intern assigned to the project for 1987-1988 was responsible for organizing the materials in the center.

As the project progressed, early dissemination efforts took place with a presentation of the ECD project to Virginia college personnel in Roanoke, Virginia, on October 22, 1986. In addition, interest in the center was spreading to local schools in Virginia. Project staff conducted a one-half day workshop for the Roanoke City schools to assist them in implementing career centers in the six city junior high schools.

During the Virginia Counselor's Association Convention held in Roanoke in November 1986, a meeting of the ECD Advisory Committee and project staff was held. Project staff described 1986 project activities and discussed future plans with the committee.

### Year Two

A decision was made that it would be desirable for the Career Development Center to demonstrate the latest in computer use, while emphasizing that it is possible to have a center without computers or with limited computer support. Two of the center's computers (the Zenith and the Apple II+) were upgraded in memory. More complex career exploration systems such as CHOICES, DISCOVER, and GIS (Guidance Information System) could now be run.

Efforts to seek additional materials were curtailed during the spring of 1987. The majority of donated materials already had arrived in the center. Quality materials were purchased to supplement in-house resources.

After the purchased materials were received and organized, the new materials were tested and evaluated by several different client populations. Various groups of high school students, ranging from the disadvantaged to the gifted, received introductory career counseling at the center using the new materials. Virginia Tech employees, in a six-week comprehensive Career Development Workshop, also used the materials. School counselors, administrators, and teachers enrolled in counselor education courses tried out the new career information materials as part of their classwork. Based on this latter activity, a list of competencies was developed to identify outcomes that should result from teacher, counselor, and administrator experiences. (See Appendix C for the list of competencies.)

Dissemination activities continued during the second year of the project. In August 1987, ECD project staff presented information on the project at the Virginia Career Development Conference held in Roanoke. In addition, Virginia Tech project staff held an open house in September 1987 to introduce and demonstrate the ECD project and the Career Development Center. Deans, department heads, and head secretaries from the College of Education attended the open house.

Carl McDaniels presented information on the ECD project at the Virginia Counselor's Association held in November in Arlington, Virginia. In conjunction with the convention, a breakfast meeting was held for the ECD Advisory Committee to bring them up-to-date on the project.

Plans were made to develop an audiovisual presentation informing other teacher, counselor, and administrator training institutions about the center. The audiovisual program also could be used at other meetings. A draft script was developed by the ECD project staff.

### Year Three

The main objectives for the final year of the project focused on: (1) finalizing the audiovisual presentation, (2) developing selected materials to accompany the slide/tape package, and (3) disseminating the comprehensive project program. "Comprehensive" suggests that dissemination of the concept and the processes--in addition to dissemination of print and audiovisual materials--must occur if the ECD project is to be replicated at other CE/TE/AE institutions throughout the Region and the country.

In the spring of 1988, Virginia Tech's Learning Resource Center staff assisted in developing a draft of the slide/tape presentation. By the end of the summer, staff revised the slide/tape program and completed the other

materials. (See Appendix D for a narrative copy of the script for the slide/tape presentation and related project materials.)

Dissemination activities continued with Carl McDaniels conducting a preconvention workshop during the American Association for Counseling and Development Conference. The workshop focused on "Using Labor Market Information in Career Exploration and Decision-Making" and included information concerning the ECD project's model Career Development Center. The slide/tape presentation also has been shown at several meetings and is currently in circulation in school divisions and counselor education programs in the Region.

Plans were made for an invitational conference where the project could be presented to key people in the AEL four-state Region. However, this seminar was not held because a program proposal was accepted for the October National Association of Counselor Education and Supervision Conference in Louisville. Since many counselor educators in the Region planned to attend this national conference, a second meeting at the regional level did not appear to be cost-effective.

Project materials were mailed to counselor educators who did not attend the St. Louis conference. The Virginia mailing also included the newly developed VIEW Index that forms a crosswalk between the Worker Trait Group structure and Virginia VIEW.

Finally, the first of what promises to be a successful series of one-day workshops for local school districts was held at Virginia Tech on November 18, 1988. This workshop format for school districts can be duplicated easily and will serve as a stimulus to develop additional career resource centers in Virginia and throughout the Region.

## SUMMARY

The objective of establishing a state-of-the-art model Career Development Center, with the help of an able advisory committee under the joint leadership of the Appalachia Educational Laboratory and Virginia Tech, was clearly met. The Career Development Center is operational and already serves as a model for secondary schools in the AEL Region. A second objective of outlining competencies to be gained by administrators, teachers, and counselors, with respect to career development centers, was also met. The list of competencies, along with the slide/tape on the model center, forms a module that can be used in preservice educational programs in colleges and universities. A third objective of disseminating information about the project is well underway and will continue through the distribution of the slide/tape and other materials describing the model center.

Although the project is officially completed, dissemination activities will continue through the use of the model center at Virginia Tech. With the slide/tape presentation and other materials developed by the project, the concept of a career development center will continue to be disseminated throughout the AEL Region and nationally.

APPENDICES



Appendix A:

List of Advisory Committee Members

EDUCATION FOR CAREER DEVELOPMENT PROJECT

ADVISORY COMMITTEE

Dr. Don Ayers  
Supervisor of Guidance Services  
Virginia State Department of Education  
Richmond, Virginia

Ms. Rebecca Dedmond  
Supervisor of Career Education  
Virginia State Department of Education  
Richmond, Virginia

Mr. Gary Kelly  
Supervisor of Guidance Services  
Roanoke County Public Schools  
Salem, Virginia

Dr. Ruby Laughon  
Director of Guidance  
Heritage High School  
Lynchburg, Virginia

Ms. Nancy Sublett  
Coordinator of Student Affairs  
Fairfax County Public Schools  
Alexandria, Virginia

Mr. James Vaught  
Supervisor of Career Guidance  
and Education  
Wythe County Public Schools  
Wytheville, Virginia

Appendix B:

Sample Letters to Publishers and Project Overview

# VIRGINIA TECH

Division of Administrative  
and Educational Services

September 11, 1986

University City Office Building  
Blacksburg, VA 24061

Education Associates, Inc.  
8 Crab Orchard Road  
POB Y  
Frankfort, KY 40602

Dear Sir or Madam,

We are excited about our progress in setting up the Education for Career Development Project's model career development center. This is described on the enclosed blue sheet. We have been fortunate that major contributors have donated the latest in career information systems, career computer software and other career materials. They know these materials will be used in our education modules to acquaint school administrators, teachers and counselors from a variety of settings with types and sources of career information materials. Display in our model career development center provides not only a unique opportunity for visibility of your software, but also allows it to become an integral part in the training of hundreds of professional educators and counselors.

While we have several microcomputers available in the center, we currently have a major gap in career resource programs which can be run on this hardware. Your Life and Career Planning: The Future is Yours has been recommended by our advisory committees as an excellent resource which deals with the issues of life/career planning. While we would like our model career development center to fairly represent all the career materials our advisory committees recommend as excellent, unfortunately limited funding precludes our outright purchase of all of these materials.

We hope you will want to make Life and Career Planning: The Future is Yours a part of the model career development center. Contributors to the center will be recognized as special supporters and their names will be listed on our suggested sources for career materials which will be distributed nationwide as part of the Project. If you donate Life and Career Planning: The Future is Yours you know that it will receive valuable exposure among professionals who will be considering materials for purchase in their work settings.

We will be looking forward to hearing from you and adding Educational Associates, Inc. to our list of special supporters.

Sincerely,



Carl McDaniel

Co-Director,

Education for Career Development Project

Virginia Polytechnic Institute and State University

1 encl



## EDUCATION ASSOCIATES, INC.

P.O. BOX Y • 33 FOUNTAIN PLACE • FRANKFORT, KENTUCKY 40602  
(502) 227-4783

September 24, 1986

Mr. Carl McDaniels  
Education for Career  
Development Project  
Virginia Tech  
University City Office Bldg.  
Blacksburg, VA 24061

Dear Mr. McDaniels:

I have received your letter requesting that we send a copy of Life and Career Planning: The Future is Yours for use in your model career development center. We would be most happy to do so.

The software program is available in Apple, TRS-80 or IBM-PC. Just let me know which format you prefer and we will be glad to send it to you.

Thank you for your interest in using our materials.

Sincerely,

*Shelley Mauer*  
Shelley Mauer  
Director of Research  
and Development

SMM:mm

# VIRGINIA TECH

Division of Administrative  
and Educational Services

University City Office Building  
Blacksburg, VA 24061

October 1, 1986

Shelley Mauer  
Director of Research & Development  
Education Associates, Inc.,  
POB Y  
33 Fountain Place  
Frankfort, KY 40602

Dear Mr. Mauer,

Thank you for your kind offer of a donation of your software Life and Career Planning: The Future is Yours to the Education for Career Development Project.

The computers available for the Education for Career Development Project include an Apple II, 48K single disk drive; an Apple II+, 48K, dual disk drive, a Tandy TSR 80, model 4D, 48K, dual disk drive and a Zenith PC, 64K, dual disk drive. Your donation of software that might run on any of this hardware is gratefully appreciated.

We will be glad to receive your donation of your software Life and Career Planning: The Future is Yours for use in the Education for Career Development Project and will be looking forward to hearing from you in the near future. Thank you again.

Sincerely,

*Carl Mc Daniels*  
Carl McDaniels,  
Co-Director, Education for Career  
Development Project

22

Virginia Polytechnic Institute and State University

# VIRGINIA TECH

Division of Administrative  
and Educational Services

University City Office Building  
Blacksburg, VA 24061

October 9, 1986

Shelly M. Mauer  
Education Associates, Inc.  
8 Crab Orchard Road  
POB Y  
Frankfort, KY 40602

Dear Ms. Mauer,

This is to thank you for donating your software Life and Career Planning to the Education for Career Development Project. We appreciate your prompt and generous response.

Your software is already on the shelves of the model Career Development Center. The next phase of the project involves the development of instructional modules on the uses and sources of career develop materials. We are pleased to have your software available to us for use in the Project. During the Spring of 1986, we had nearly 200 students enrolled for graduate studies in the Counselor Education program area and we receive about an equal number of application for the program each year. As your software will be used for instructional purposes in our basic career development courses, you can expect a wide exposure among these professionals.

It is the aim of the Education for Career Development Project to be a model project for the education of teachers, counselors and administrators who must meet the career guidance needs of students in the secondary schools. The final Project report will be disseminated at no cost to the National Occupational Information Coordinating Committee, to the federally mandated state occupational information coordinating committees as well as to colleges and universities throughout the United States. You be be assured of exposure of your software, Life and Career Planning both in the education of professionals and in our listing of Education Associates, Inc. as a special supporter and suggested source for career development materials.

Thank you again for your donation. Please keep us on your mailing list so we may receive your current purchasing catalogue.

Sincerely,

Carl McDaniels, Co-Director,  
Education for Career Development Project

23

Virginia Polytechnic Institute and State University

## EDUCATION FOR CAREER DEVELOPMENT PROJECT

Carl McDaniels, Project Co-Director  
Virginia Tech  
Blacksburg, VA 24061

David W. Winefordner, Project Co-Director  
Appalachia Educational Laboratory  
Charleston, WV 25325

The goal of the Education for Career Development Project (ECD) is to improve the use of career information and guidance resources in secondary schools.

Over the past decade and a half, major efforts have been made to improve career guidance services and programs in our nation's schools through R & D initiatives at the federal and state levels. These efforts primarily focused upon implementation at the local level requiring massive in-service programs. This approach involved counselors with limited skills in working with instructional staff, curriculum supervisors with little or no background in career development theory or practice, and administrators faced with a multitude of other issues such as school reform and improvement.

The ECD Project is a three year cooperative effort between Virginia Tech and the Appalachia Educational Laboratory (AEL) to develop and test a new strategy for informing prospective teachers, administrators, and counselors about the career guidance needs of secondary school students and the available materials for assisting these students with career exploration, decision making, and educational planning.

ECD Project objectives and activities include those designed to:

- help educators in training develop an understanding of the vital importance of the use of career information and guidance resources as part of the school's instructional and career guidance program efforts.
- help administrators develop a commitment to their administrative leadership role, and to become knowledgeable about the critical need for the availability of career information and guidance resources, and the roles of teachers and counselors in using these resources.
- provide teachers with understandings and skills for infusing career information into subject matter and instructional activities.
- provide counselors in training with coordinated experiences in working with prospective teachers and administrators. These experiences will focus on the importance of infusing career information and selected guidance activities into the curriculum.
- communicate information about the project to other universities and states.

The project has two major phases. The first phase is completed and involved setting up a model career development center. The center houses the latest career information resources, along with exemplary systems for organizing, managing, and accessing information. In addition to serving as a model center for use by the College of Education, it will serve as a model for state and regional high schools.

The second phase involves acquainting counselors, teachers, and administrators with the center and the resources. The activities will also assist them in developing vital competencies needed to effectively assume their role in establishing, operating, and maintaining a center in a secondary school setting.



Appendix C:  
List of Competencies

## EDUCATION FOR CAREER DEVELOPMENT PROJECT

### Competencies

For Central School Administrators, Principals, Teachers, and Counselors

1. Understanding of the Career Development Center (CDC) as a source of materials and information for career planning.
2. Understanding the process of career development and the role and importance of career information and planning within secondary education.
3. Awareness of the sources of career information, including major career information delivery systems, and how these resources may be used in an effective way with students.
4. Awareness that secondary school career development programs must be equally available to all students; appropriate to their age and development; and unbiased in regards to race, sex, religion, socioeconomic status or handicap.
5. Awareness of specific career information and planning resources within the CDC and their potential for infusion into the classroom curriculum.

For Counselors

6. Demonstrate an understanding of how specific career development theories and techniques can be related to the development of student skills such as decision-making.
7. Demonstrate an understanding of the various delivery modes for career information resources appropriate to differing client populations.
8. Demonstrate consultation skills needed to aid principals and teachers in implementing specific career development programs for students.
9. Demonstrate counseling skills, including use of assessment instruments, to aid students in development of self-understanding in relation to their career planning.
10. Demonstrate communication skills in interpreting assessment results to students, teachers, and parents and in explaining how the results relate to students' career development.
11. Demonstrate an understanding of CDC organization and management techniques, including materials updating, accessing strategies, and security measures.
12. Demonstrate an understanding of the evaluation of a CDC, including the process for evaluating career information materials to insure that they are current, complete, and unbiased.

Appendix D:

Slide/Tape Script and Related Project Materials

## A MODEL CAREER DEVELOPMENT CENTER AT VIRGINIA TECH

75 slides, 14:10 audio cassette with 1000 Hz synch track, Side 1;  
1000 Hz audible cue tone, Side 2.

Career counseling is a growing part of school counseling, addressing such questions as, How can we inform young people quickly and effectively about the many careers open to them? How can students learn about themselves as personalities and as potential employees in the workforce of tomorrow? How can young people learn about decision-making and life planning? What has been needed is a single local source for testing, information, and guidance, where secondary school students can begin the career exploration process. The Appalachia Educational Laboratory and Virginia Tech have established a Model Career Development Center that serves as a model for how a career development center can be established and organized in a typical school system.

In addition, Virginia Tech graduate students studying school administration are tasked with using the Model Career Development Center as part of their training. To insure that these students are capable of establishing such a center in a school, the career guidance curriculum mandates twelve competencies that relate to the establishment and operation of such a center. Competency topics include developing information systems for classroom use and involving principles and teachers in designing career development programs.

## TO USE THIS PROGRAM:

The cassette included with this slide set has the same program recorded on both sides. One side has inaudible slide synchronization pulses which can be decoded on a Wollensak 2551 or similar cassette player suitable for use with 1000 Hz pulses and Kodak Carousel and Ektagraphic slide projectors for automatic sound-slide playback. The other side of this cassette has audible slide changing pulses, allowing use of this cassette on any cassette player, but without provision for automatic sound-slide playback. In this mode, slides must be changed manually by listening carefully for the beep tone at every slide change.

TO USE THIS CASSETTE WITH WOLLENSAK 2551 OR SIMILAR CASSETTE PLAYERS,  
USE THE CASSETTE WITH THE SIDE MARKED INAUDIBLE SYNCH PULSES.

1. Set slide tray on Kodak Carousel or Ektagraphic slide projector and advance to slide 1.
2. Focus and adjust image size.
3. Connect synch cord from cassette player to projector.
4. Make sure Synch Mode switch on cassette player is set to "playback".
5. Make sure cassette is fully rewound.
6. Start cassette player. At first synch pulse, slide 2 should appear on the screen, and all other slides should advance automatically with each succeeding pulse. Refer to script supplied with this program for proper sequencing.

TO USE THIS CASSETTE WITH CASSETTE PLAYERS NOT EQUIPPED FOR AUTOMATIC SLIDE CHANGING,  
USE THE CASSETTE WITH THE SIDE MARKED AUDIBLE SLIDE CHANGE PULSES.

1. Follow steps 1, 2, and 5 above.
2. Start cassette player.
3. At first audible beep, advance slide tray manually to slide 2, and continue advancing slides at each beep. Listen carefully. Refer to the enclosed script for proper sequencing.

TO USE THIS SLIDE SET WITHOUT THE CASSETTE, READ THE NARRATION ON THE RIGHT SIDE OF THE ENCLOSED SCRIPT. DO NOT READ MATERIAL IN PARENTHESIS. NOTE THAT 5 SECOND PAUSES ARE INDICATED AT SOME POINTS. THIS ALLOWS THE SLIDES TO BE ON THE SCREEN LONG ENOUGH TO BE READ BY THE AUDIENCE.

SLIDE	SOUND
1) Title	[Music]
2) MCDC	[Music]
3) Student & TV camera	How can our children learn about planning the rest of their lives? Can they do it by watching adults at work? Sometimes it's possible to shadow a professional on the job, but not often.
4) Virginia Tech	Many people think that a college education is the best way to start a career. But how can they find out if college is right for them?
5) Counselor & student	These days, school counseling is being asked to answer these questions and many more about planning and managing one's life.
6) Students in career center	But there is so much information on careers, it can be hard to sort it out and make it useful to students.
7) Career charts	How can a school administrator, teacher, or counselor find out what's available in career information? How can this material be organized and integrated into the curriculum of the high school?
8) A MODEL FOR ----- * TOOLS * TECHNIQUES * RESOURCES	What has been needed is a model that can bring together all the tools, techniques, and resources of career counseling-- a place where these resources can be sampled, studied, compared, and evaluated-- a place where tomorrow's educators can learn how to put these tools to work...
9) Students in lab	...for the real pioneers of tomorrow's world, the high school students of America.
10) MCDC longshot	To meet this need The Model Career Development Center at Virginia Tech was developed. Not only does the Center house a vast collection of the latest materials, it also stands as an example of how materials can be organized and effectively used.
11) CHOICES computer program & user	The Center is truly "state-of-the-art," making full use of the most innovative techniques. In keeping with its role as a model center, it is continually being updated.

- 12) Satellite dish For example, in the not-too-distant future, it is entirely possible that the Model Career Development Center could be connected to other such centers around the state by satellite transmission,
- 13) TV monitor display ...inter-active videos, and laser discs.
- 14) Man with video camera The use of media extends to producing materials, such as video in work settings, to be used later in the Center.
- 15) Computer, VCR & mon., Many career centers only use printed material, for example, or computers. But a multi-media approach covers a wide range of student interests and tastes. And multi-media enables the Center to include as much material as possible in all formats.
- 16) Career books & briefs The Center has, of course, many high-quality books, references, and briefs on career information and other topics, such as self-esteem and stress management.
- 17) VA career guide And it also features a guide on finding state career information locally.
- 18) Virginia VIEW equip. The core of any career development center is the state career information delivery system.
- 19) VIEW microfiche At Virginia Tech's Model Career Development Center, this system is Virginia VIEW.
- 20) VIEW material Virginia VIEW consists of print material, microfiche, a computer-directed career search, college search,
- 21) VIEW poster ...and a toll-free career information hotline.
- 22) 1) SELF ASSESSMENT  
2) ED-OCC-INF-  
3) TAKING ACTION  
4) LIFE MANAGEMENT The Model Career Development Center is organized physically and conceptually around Virginia VIEW into four stations, each of which covers a major topic in career and life planning.
- 23) Station boxes Each station is an exploration process divided into steps. These steps feature questionnaires or handouts that lead the user progressively, at the user's own pace. If necessary, the user can backtrack and re-evaluate previous steps.
- 24) Self-assessment station As one example, the first station, Self-Assessment, helps the user learn about personal traits. Self-assessment is as old as Socrates, of course.

- 25) User at table doing self-assessment      It's an important first step in career guidance because people starting out on careers need to understand how traits and skills fit into the job market.
- 26) INTERESTS, VALUES, SKILLS      This first station is divided into three areas, interests, values, and skills. Each of these areas is further subdivided. For example,
- 27) Self-assessment form      ...skills identification is one of the most crucial areas of self-assessment, and one of the most difficult to evaluate, so the skills area has four steps or boxes.
- 28) Counselor with assessment materials cabinet      Even though this is a self-paced process, some of the assessment materials should be administered at the discretion of the counselor, so they are kept in a separate cabinet.
- 29) Other Station      In a similar fashion, each of the other three stations is organized into topical areas with questionnaires, handouts, and related resources.
- 30) Computer, tapes, books      In addition to the guides and questionnaires, each station has the latest topical information arranged for easy reference and use--pamphlets, books, computer programs, videos, microfiche, and slide-tapes.
- 31) Grad student class      The Model Career Development Center is special in another way: it's used in Virginia Tech's professional educator program to train graduate students in the career development process.
- 32) Grad student pair      They use the Center the same way as would secondary students, either in group counseling sessions, or by the individual alone in a self-paced personal experience. And these graduate students also provide valuable feedback on the effectiveness of the Center.
- 33) Grad students orient.      The user is first given an orientation to Virginia VIEW. After following its step-by-step procedures, the user can extend the career search to the four stations located around the room.



- 34) Grad student using MCDC  
By going through the steps in the four stations the user gets a good feel for the career exploration process that would be provided to secondary school students. This is all well and good for a model center, but what kind of center can you set up in your own school?
- 35) Career center in a secondary school  
To function effectively, a Career Development Center needs ample space in a good location. It may be necessary for the Center to share space in the library, a media center, a conference room, or similar space.
- 36) Administrators in consultation  
But before you can find the space, there must be involvement. The best Career Development Centers are those which involve administrators and teachers, as well as counselors. These professionals share a deep concern about the ultimate needs of students as people, citizens, and workers.
- 37) COMPETENCIES FOR PRE-SERVICE TRAINING  
Thus to organize and manage a Center, competencies needed by these educators have been developed as part of their pre-service training at the Model Career Development Center.
- 38) COMPETENCIES FOR  
\* Administrators  
\* Teachers  
\* Counselors  
The first five competencies identified involve administrators, teachers, and counselors.
- 39) COMPETENCY 1 [Graphic]  
The first competency stresses the role of the center as a source of material and information for student exploration and planning.
- 40) CDC in secondary school  
We believe that establishing a career development center is the first important step because it is the logical place to bring together all the many resources.
- 41) COMPETENCY 2  
The second stresses the process of life career planning, and that such planning is a major focus of secondary education.
- 42) Students reviewing career material  
Students are at a point in their lives where they will make decisions with long-lasting effects. Getting a good start in decision-making here gives the student confidence and a sense of possibilities.

- 43) COMPETENCY 3                      Knowing how to beat the bushes in search of the latest career information is how the mastery of the third competency is demonstrated.
- 44) Army recruiter and student                      Finding such material is often a matter of tapping local sources, such as military recruiters, and then extending the search to regional and national sources.
- 45) COMPETENCY 4                      Career planning is vital for all students. Seeing to it that appropriate career information is made available to all students is the theme of the fourth competency.
- 46) Handicapped student using CDC                      At all levels of the educational process, each student needs the best advice that career planning can offer. The range of careers is so vast that there is something of lasting value for everyone.
- 47) COMPETENCY 5                      Getting the word on career planning into the classroom is the essence of the fifth competency.
- 48) Counselor in classroom                      For many students, a classroom session may be the first occasion where they are presented the concepts of life and career planning. Attracting their attention outside the Career Center may encourage them to see what's inside.
- 49) SEVEN COMPETENCIES                      For those in the front lines, the counselors who work with students, there are seven more competencies.
- 50) COMPETENCY 6                      Using the theories and techniques of the career development process is the foundation of the sixth competency.
- 51) Career-Life Rainbow                      The application of theory is what makes the career development process work. Not only that, theory and technique are particularly important in assisting students with decision-making skills.
- 52) COMPETENCY 7                      The seventh competency stresses becoming familiar with the many resources and delivery modes available.
- 53) Counselor & students                      Getting the message to students by using delivery systems with broad appeal encourages them to experiment, to try ideas on for size, to find the method that works best for them.

- 54) COMPETENCY 8                    The eighth competency involves consultation with teachers and administrators to develop...
- 55) Counselor, teacher,  
    & principal consulting        ...the strongest possible career program for the school and district. With the sense of direction that career development can give students, educators are better able to show the efficacy of education overall.
- 56) COMPETENCY 9                    Using appropriate counseling skills and assessment instruments with each student is the core of the ninth competency.
- 57) Counselor & student  
    discussing assessment        Good assessment techniques give students confidence that there really is something to this complicated process.
- 58) COMPETENCY 10                  Competency 10 extends the assessment process to teachers and parents.
- 59) Counselor, student,  
    parent                          Parents, too, need reassurance that career and life counseling are effective methods for getting their children started on the road to independent, useful lives.
- 60) COMPETENCY 11                  We've shown you the set up of the Model Career Development Center, but...
- 61) Rolodex                          ...there is more than one way to approach organization. You are encouraged to exercise your imagination to devise an installation that works for you and your school.
- 62) COMPETENCY 12                  Once you do have a center of your own, keeping it fresh and up-to-date ensures...
- 63) Counselor reviewing  
    materials                        ...that your center offers users the latest and the best in career materials.
- [Musical bridge]
- 64) Student in career  
    center                            The Career Development Center is more than just another place where books and tapes and microfiche are stored. It's more than just another place where young people take tests.
- 65) Student in career  
    center                            It's a place where they can come again and again to think and plan and dream about their futures. It's the place where--perhaps for the first time--they will get a glimpse into the adult world they will inherit.

- 66) Center  
The Career Development Center brings to focus all the efforts of administrators, teachers, and counselors. So it's important for educators to understand the many aspects of career-life counseling, self-assessment, educational-occupational information, decision-making, life management, and how the information provided can "come alive" for students.
- 67) MCDC with grad students  
The goal of the Model Career Development Center at Virginia Tech is to devise the best means possible to make career development a vital part of secondary education, and to pass that knowledge on to the professional educators of tomorrow. We hope that it will truly serve as a model for secondary schools everywhere.
- 68)-70) Montage of career centers  
Schools like these... [Music]
- 71) UCOB exterior  
If you would like to learn more, stop by and visit the Model Career Development Center, just off the Virginia Tech campus, in Blacksburg, Virginia.
- 72) Prof. McDaniels  
Or contact Carl McDaniels.
- 73) Starter info. kit [graphic]  
Even if you can't visit we have a free information kit for you. It includes techniques for promoting a center in a typical school system, sources of career information, how to set up a facility, and how to get started working with students on planning their careers.
- 74) Production credit  
[Music up]
- 75) Tech & AEL credit  
[Music up & out]

## EDUCATION FOR CAREER DEVELOPMENT PROJECT

Carl McDaniels, Project Co-Director  
Virginia Tech  
Blacksburg, VA 24061

David W. Winefordner, Project Co-Director  
Appalachia Educational Laboratory  
Charleston, WV 25325

The goal of the Education for Career Development Project (ECD) is to improve the use of career information and guidance resources in secondary schools.

Over the past decade and a half, major efforts have been made to improve career guidance services and programs in our nation's schools through R & D initiatives at the federal and state levels. These efforts primarily focused upon implementation at the local level requiring massive in-service programs. This approach involved counselors with limited skills in working with instructional staff, curriculum supervisors with little or no background in career development theory or practice, and administrators faced with a multitude of other issues such as school reform and improvement.

The ECD Project is a three year cooperative effort between Virginia Tech and the Appalachia Educational Laboratory (AEL) to develop and test a new strategy for informing prospective teachers, administrators, and counselors about the career guidance needs of secondary school students and the available materials for assisting these students with career exploration, decision making, and educational planning.

ECD Project objectives and activities include those designed to:

- help educators in training develop an understanding of the vital importance of the use of career information and guidance resources as part of the school's instructional and career guidance program efforts.
- help administrators develop a commitment to their administrative leadership role, and to become knowledgeable about the critical need for the availability of career information and guidance resources, and the roles of teachers and counselors in using these resources.
- provide teachers with understandings and skills for infusing career information into subject matter and instructional activities.
- provide counselors in training with coordinated experiences in working with prospective teachers and administrators. These experiences will focus on the importance of infusing career information and selected guidance activities into the curriculum.
- communicate information about the project to other universities and states.

The project has two major phases. The first phase is completed and involved setting up a model career development center. The center houses the latest career information resources, along with exemplary systems for organizing, managing, and accessing information. In addition to serving as a model center for use by the College of Education, it will serve as a model for state and regional high schools.

The second phase involves acquainting counselors, teachers, and administrators with the center and the resources. The activities will also assist them in developing vital competencies needed to effectively assume their role in establishing, operating, and maintaining a center in a secondary school setting.

## EDUCATION FOR CAREER DEVELOPMENT PROJECT

### Competencies

For Central School Administrators, Principals, Teachers, and Counselors

1. Understanding of the Career Development Center (CDC) as a source of materials and information for career planning.
2. Understanding the process of career development and the role and importance of career information and planning within secondary education.
3. Awareness of the sources of career information, including major career information delivery systems, and how these resources may be used in an effective way with students.
4. Awareness that secondary school career development programs must be equally available to all students; appropriate to their age and development; and unbiased in regards to race, sex, religion, socioeconomic status or handicap.
5. Awareness of specific career information and planning resources within the CDC and their potential for infusion into the classroom curriculum.

For Counselors

6. Demonstrate an understanding of how specific career development theories and techniques can be related to the development of student skills such as decision-making.
7. Demonstrate an understanding of the various delivery modes for career information resources appropriate to differing client populations.
8. Demonstrate consultation skills needed to aid principals and teachers in implementing specific career development programs for students.
9. Demonstrate counseling skills, including use of assessment instruments, to aid students in development of self-understanding in relation to their career planning.
10. Demonstrate communication skills in interpreting assessment results to students, teachers, and parents and in explaining how the results relate to students' career development.
11. Demonstrate an understanding of CDC organization and management techniques, including materials updating, accessing strategies, and security measures.
12. Demonstrate an understanding of the evaluation of a CDC, including the process for evaluating career information materials to insure that they are current, complete, and unbiased.

SELECTED REFERENCES  
DEALING WITH CAREER DEVELOPMENT CENTERS

- Axelrod, V., Drier, H., Kimmel, K., & Sechler, J. (1977). Career resource centers. Columbus, OH: The Center for Vocational Education.
- Brusasco, M. (1975). Career resource center at Nassau BOCES southwest center: VEA project. Jericho, NY: Nassau County Board of Cooperative Educational Services.
- Burtnett, F. E. (1974). Guidelines for establishing a career information center. National Career Information Center, Washington, DC: American Personnel and Guidance Association.
- Cameron, D. L., & Lutz, B. (1973). Model career resource center: Final report. Harrisburg, PA: Pennsylvania State Department of Education.
- Career Planning and Placement Staff - University of Maryland. (Fall, 1982). Meeting career needs: A multiple approach. Journal of College Placement, 43(1), 43-48.
- Carey, N. E., & Johnston, C. D. (1975). Career resource centers. Focus On Guidance, 8(1).
- Fine, R. D. (1978). The career resource center: A guide for implementation. Roanoke City Public Schools: Virginia Department of Vocational and Adult Education.
- Fine, S. (ed.) (1980). Developing career information centers: A guide to collection building and counseling. NY: Neal Schuman Publishers.
- Goodman, L. H. (1982). Current career and occupational literature. NY: H. W. Wilson Co.
- Isaacson, L. E. (1986). Career information in counseling and career development (4th edition). Boston, MA: Allyn and Bacon, Inc.
- Jacobson, T. J. (1972). Career guidance centers. Personnel and Guidance Journal, 50(7), 599-604.
- Jacobson, T. J. (1974). Career centers. National Career Information Center. Washington, DC: American Personnel and Guidance Association.
- Klinge, C., et. al. (1978). Planning a career resource center. Module 19. Palo Alto, CA: American Institute for Research in the Behavioral Sciences.
- Lary, M. S. (Spring, 1985). Career resource centers. Library Trends, 33(4), 501-12.

- Martin, G. M. A. (1980). Guide to setting up a career information center. Occupational Outlook Quarterly, 24, 12-17.
- Marshall, B. (1982). Career resource center. Columbus: ERIC Clearinghouse on Adult, Career, and Vocational Education.
- Meerback, J. (1978). The career resource center. NY: Human Sciences Press.
- Moir, E. (1981). Career resource centers in business and industry. Training & Development Journal, 35(2), 54-57.
- Moskowitz, I. (1973). Career resource center: A "pre K to adult" model for career development. Trenton: New Jersey State Department of Education.
- Mountan, N. M. (1973). Model career resource centers in schools for the systematic purposeful use of career information supported by a state information preparation agency. Harrisburg: Pennsylvania State Department of Education.
- Norris, W. et. al. (1985). The career information service (4th ed.). Prospect Heights, IL: Waveland Press, Inc.
- Palo, J. B., & Micelich, A. L. (1980). Whys, hows of starting career resource centers. Illinois Vocational Education Journal, 37, 30-32.
- Ritch, R. W. (1975). Guidance workshop manual career information centers. Boston: Massachusetts State Department of Education.
- Rockcastle, M. T. (1985). Where to start: An annotated career planning bibliography (5th ed. 1985-87). Princeton, NJ: Peterson's Guide.
- Sullivan, R. E. (1975). Career resource center: A handbook for implementation. New Brunswick, NJ: Rutgers, The State University Curriculum Lab.
- Weiss, S. C. (1983). Career resource centers. Michigan: Eric Counseling & Personnel Services Clearinghouse.
- Wood, R. A. et. al. (1976). Establishing a career resource center. Palo Alto, CA: American Institutes for Research in the Behavioral Sciences.
- Zunker, V. G. (1986). Chapter 6 in Career counseling: Applied concepts of life planning. Monterey, CA: Brooks/Cole.

For further information, contact: Carl McDaniels, Co-Director, Education for Career Development Project, Virginia Tech and Appalachian Educational Laboratories, Virginia Tech, Blacksburg, VA 24061.



Accessing Career Information  
Model Career Development Center  
Virginia Tech

The Virginia Tech model Career Development Center consists of four stations: 1. Self-Assessment, 2. Educational Occupational Information, 3. Taking Action, and 4. Life Management. Stations are placed in a circular fashion against all of the four walls in the center.

In addition to the stations, there is a "Special Topics" bookshelf containing books and manuals for career guidance counselors. Topics include Group Guidance, Current Psychotherapies, Consultation, and Counselor Supervision.

SELF-ASSESSMENT

The first station, SELF-ASSESSMENT, is located to your left as you enter and consists of tools for better understanding oneself. You will find an activities checklist, a work values inventory, a skills checklist, an aptitude checklist, and a work environment checklist. Checklists and inventories are green. Books on planning careers such as The Career Game, The Job Change, and Self-Motivated Career Planning are also included.

EDUCATIONAL-OCCUPATIONAL INFORMATION

Continuing around the center to the second station, EDUCATIONAL-OCCUPATIONAL INFORMATION, you will find such resource materials as the Worker Trait Keysort Deck, the AEL Career Information System Guide, and the Video Career Library. You will also find the Encyclopedia of Careers, college guides, and books on specific careers such as accounting and nursing. This station is divided into two sections: EDUCATIONAL INFORMATION and OCCUPATIONAL INFORMATION.

### EDUCATIONAL INFORMATION

A partial listing of the books in this section are: American Trade Schools Directory, The College Blue Book (16th and 18th edition), SAT Success for Micros, Directory of Special Programs for Minority Group Members, Four-Year College Data Book, Guide to Law Schools, Getting into Medical School, Guide to Two-Year Colleges, Student Aid Manual, College Money Handbook, and Guide to Colleges for Learning Disabled Students.

The Worker Trait Group Keysort Deck for the AEL Career Decision-Making Program is also included in this section.

### OCCUPATIONAL INFORMATION

In the OCCUPATIONAL INFORMATION section are occupational guides, such as: The Outdoor Careers Guide, Military Career Guide, The High-Tech Career Book, Guide to Federal Jobs, The Encyclopedia of Careers, and informational books on specific careers such as nursing, engineering, and recreation and leisure time careers.

Here you will also find general information books, such as Dream Jobs, Planning Your Career of Tomorrow, Blue Collar Women, The Job Belt, and The Promise and the Power.

The Richard Bolles book, The Three Boxes of Life, an introduction to life/work planning is featured in this section. In addition, there is a two-part 1987 video tape, "Where the Jobs Are," as well as a Video Career Library that includes tapes on careers in the repair field, in construction, in transportation, in the sciences, in education, in medical and allied health fields, and in the literary and performing arts.

The AEL Career Information System Guide with video instructions and career information is also in this section.

Handouts in this section, which are blue, include information on understanding the work environment, sources of information for reaching goals, an aptitude checklist, and career planning and development information. A Handbook for Exploring Career Areas, also in this section, offers helpful insights.

The Virginia VIEW Career Information Delivery System is located nearby. A microfiche reader, computers, and printers are available to use with Virginia VIEW.

On a bookshelf next to the Virginia VIEW microfiche reader, you will find the Dictionary of Occupational Titles, the Occupational Outlook Handbook, the Worker Trait Group Guide, and booklets describing specific careers.

All of these books and materials are designed to provide information to make informed career decisions. Each source provides different kinds of information about an occupation. The materials may be used individually or in any combination.

For example, if you are undecided about an occupational choice, you could start by answering the questions about your interests and preferences on the Work Activities Checklist. You may then use your checklist with the Worker Trait Group Keysort Deck to help you narrow your career choices.

Similarly, the Virginia VIEW Career Search will provide you with a computer printout listing of occupations based on the variables you selected.

CHOICES is another computerized career information, decision-making system which contains national information and the Chronicle Occupational Library is an information filing system organized by the Dictionary of Occupational Titles codes.

### TAKING ACTION

The third station, TAKING ACTION, is located on the opposite wall from station two and completes the career decision-making process through practical application. For this section you will find various resources for the job search and resume writing in addition to hand-outs on career development goals, strategies, and making a plan of action. Hand-outs in this section are gold.

### LIFE MANAGEMENT

The fourth and final station, LIFE MANAGEMENT, which brings one full circle around the center, addresses a number of issues relevant to life today. Topics range from effective time management, coping with family violence, grief, self esteem, and parenting. Topics of hand-outs, which are yellow, include how to stop smoking, alcoholism, relationships, use of productive leisure, and learning disabilities.

### THE CAREER DEVELOPMENT PROJECT

The Education for Career Development Project (ECD) is a cooperative effort between Virginia Tech and the Appalachian Educational Laboratory (AEL) to develop and test a new strategy for informing teachers, administrators, and counselors about career guidance needs of secondary school students and the materials available to assist students in career exploration, decision making, and educational planning.

If you have questions about using any of the career information resources or if you would like to discuss your career plans with a counselor, please see the secretary to make an appointment or call Ann Puryear at 5106.

9/87

MULTI-MEDIA SYSTEMS OPTIONS  
FOR A CAREER DEVELOPMENT CENTER

1. First Hand Observation
  - Long-Term, Part-Time Work
  - Short-Term, Part-Time Work
  - Summer Full-Time/Part-Time Work
  - Summer School Work/Learning Programs
  - Leisure Activities
  - Volunteering/Active Participation
  - Work Study
  - Cooperative Work Program
  - Shadowing Experience
  - Career Visits - Short and Long Term
  - Role Models - On The Job/In School
  - Personal Structured Contacts
  
2. Film and Television - Action Picture and Sound
  - 8 mm Films - Locally Produced
  - 16 mm Films - Locally Produced
  - Commercial Films (mostly 16 mm)
  - Video Tape - Commercial and Locally Produced
  - Television - Commercial
  - Television - PBS
  
3. Still Pictures and Sound
  - Silent Film Strip
  - Sound Film Strip
  - Slides and Tape
  - Slides
  - Transparencies with Script
  - Transparencies with Tape
  - Tapes or Records
  - Radio - Commercial
  - Radio - National Public Radio (NPR)

Source: McDaniels, C. (1987). Career Information. In C. Humes (Ed.), Contemporary Counseling (pp. 137-138). Muncie, IN: Accelerated Development Publishers.

4. Large Visuals
  - Posters - Content
  - Posters - Pictures
  - Charts - Content
  - Charts or Posters with Tape
  - Bulletin Boards
  - Posters - Planned - Created - National Career Guidance Week (November each year)
5. Print
  - Books - Paperback/Hardcover
  - Magazines - Commercial/Specialized
  - Work Books
  - Comics
  - Newspapers - Career Tabloids
  - Columns
  - Brochures
  - Monographs
  - Briefs
6. Automated or Semi-Automated Systems
  - McKee Sort - Chronical Guidance Publication - College View
  - Micro Fiche - Virginia VIEW/State Career Information Delivery System
  - Main Frame - Computer Assisted - GIS/CHOICES/Discovery/SIGI
  - Microcomputer - Virginia VIEW Interactive VIEW/State Career Information Delivery System
7. Miscellaneous
  - Games - Careers/What Shall I BE
  - Simulation - SRA - Hands on Kits
8. Others - Laser Disc Technology

Fall, 1988

HOW TO OBTAIN THE VIRGINIA TECH/AEL  
MODEL CAREER DEVELOPMENT CENTER  
SLIDE TAPE PRESENTATION

The slide tape, which explains in words and pictures the essence of a state of the art career development center, is available to you for viewing free of charge for one week only.

To obtain the slide tape for presentation to administrators, teachers/counselors, and others, simply complete the information at the bottom of this page and return to: Carl McDaniels, 207 UCOB, Virginia Tech, Blacksburg, VA 24061.

Equipment needed: carousel slide projector and tape recorder, synchronized or unsynchronized

Length of Presentation: approximately 12 minutes

-----  
Please send the slide tape of the Virginia Tech/AEL Model Career Development Center to:

\_\_\_\_\_  
(Name)

Date tape requested:

\_\_\_\_\_  
(Title)

First Choice: \_\_\_\_\_

\_\_\_\_\_  
(Address)

Second Choice: \_\_\_\_\_

\_\_\_\_\_  
(Address)

I understand that there is no charge for the slide tape. I agree to return the slide tape at my expense no later than one week from date of receipt.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

RETURN COMPLETED FORM TO:

Carl McDaniels  
Counselor Education  
205 UCOB  
Virginia Tech  
Blacksburg, VA 24061

Fall, 1988

47

## ORGANIZING AND MANAGING OCCUPATIONAL INFORMATION

A review of the literature on occupational information reveals that authors are in agreement on the criticality of organizing, managing, and accessing occupational and career information.

Occupational information is very specific covering topics such as job duties, skills needed, as well as preparation and training required for a specific occupation. Career information is broader and includes such topics as goal setting, values clarification, self-assessment, decision-making, and career planning.

At this point in time, there seems to be an abundance of career and occupational information. However, these materials need to be organized so users will get the most out of their career exploration experiences.

Occupational information resources range from briefs and pamphlets to computer software. For effective use and retrieval of these resources, there needs to be a workable system of filing, displaying, and indexing the occupational information. Loose-leaf materials such as occupational briefs and pamphlets may be stored in file drawers, plastic bins, boxes, or open files. Other types of materials such as bound books and audiovisuals may be displayed on bookshelves or filed in audiovisual racks or cabinets. Storage boxes for computer software should also be readily accessible.



These materials also need to be organized so that all resources relevant to each occupation can be easily identified. The organizational structure used should facilitate locating materials on some other basis than occupational titles used on the material. Different sources of information may use different titles for the same occupation. Therefore, a structure such as the Dictionary of Occupational Titles (DOT) should be used that has main titles and links other alternate titles to them. This reference is the most comprehensive and widely used source of occupational information available.

#### Filing Occupational Information

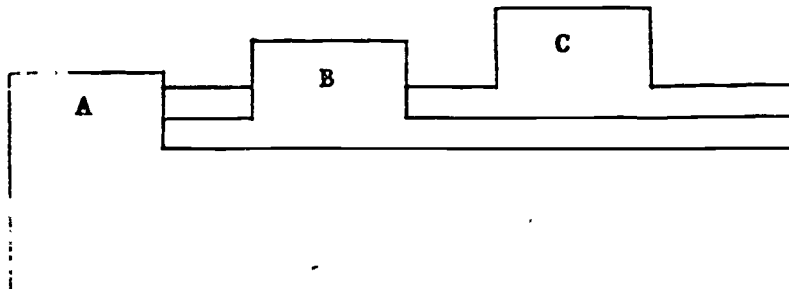
When choosing a filing system there are a few points to consider. These are:

1. The system should be easily accessible to the users and simple enough for a person to find information with little or no assistance.
2. The system should allow for expansion and be easy for staff to maintain and keep up-to-date.
3. The system should be based primarily upon the needs of the students but should consider the needs of the counselor, librarian, and media center director.
4. The system should be tied to the school's career guidance activities.
5. The grouping structure used should be such that occupations are assigned to only one group.
6. The system needs to be open-ended so other resources such as the Occupational Outlook Handbook (OOH), Encyclopedia of Careers (EOC), and state career information systems can be filed or indexed into it.

Occupational information is either filed alphabetically by title or by some occupational grouping structure.

### Alphabetical

If materials are arranged by DOT titles they should be alphabetized by considering all occupations with two words as one word. For example, in the DOT, the title "Producer" would be filed before the title "Produce Weigher." The following is an example of a file with dividers arranged in alphabetical order.



The problem with using an alphabetical system is keeping the materials in order behind each of the letter dividers. Also, the file divisions have no special meaning and do not provide access to common groups of occupations. Although used in some schools, the alphabetical system is not recommended.

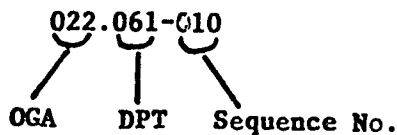
### Occupational Grouping Structure

In selecting an occupational grouping structure to be used as a filing system, consideration should be given to the structure used in the school's career guidance materials. If that grouping structure is not used then the filing system should be cross indexed.

The two most common occupational grouping structures used as filing systems are structures developed by the Department of Labor -- the Occupational Group Arrangement (OGA) and the Career Area/Worker Trait Group Arrangement.

In the Dictionary of Occupational Titles (DOT), occupations are arranged by the nine-digit DOT code. Each DOT main occupational title has been assigned a nine-digit code and should be used on the occupational information source regardless of the filing system. The code is divided into three sections. The first three digits are the Occupational Group Arrangement (OGA) code and identifies the broad category, division, and group to which an occupation belongs. The second three digits are the Data-People-Things code and represents the highest level of involvement that an occupation has with each of the basic elements of work - data, people, and things. The last three digits have no special meaning, but provide a unique code for each occupation, primarily for use in computer and other systems of occupational information.

**EXAMPLE  
NINE-DIGIT DOT CODE**



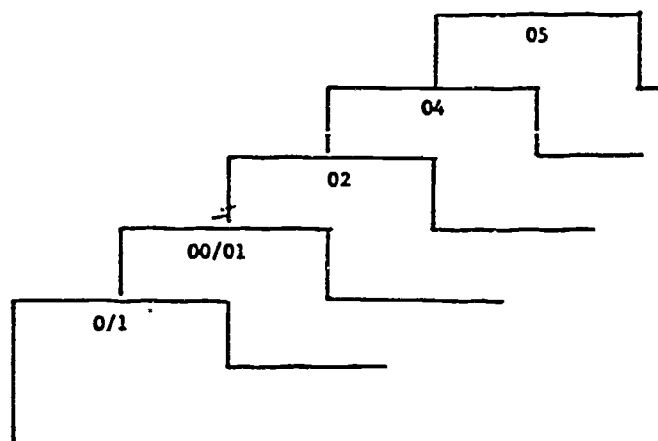
The first three digits identify a particular occupational group. All occupations are clustered into one of nine broad categories (first digit) -- these are:

- 0/1 Professional, Technical, and Managerial
- 2 Clerical and Sales
- 3 Service
- 4 Agricultural, Fishery, Forestry, and Related
- 5 Processing
- 6 Machine Trades
- 7 Bench Work
- 8 Structural Work
- 9 Miscellaneous

These categories are divided into 82 occupationally specific "divisions" (first two digits), and the divisions are further divided into 559 small, homogeneous "groups" (first three digits).

The nine digit code must be recorded on each piece of material and placed in a folder with the same OGA code. The folders are filed in numerical order. Only the nine categories and 82 divisions are used for filing unless it is a very large system of resources. The OGA filing system groups related occupations together representing the work performed; machines tools, equipment used; materials processed, products made, subject matter dealt with, or services rendered.

Below is an example of a filing system arranged by the OGA structure.



Career Area/Worker Trait Group Structure

This filing system is based upon the 12 Career Areas and 66 Worker Trait Groups from the Guide for Occupational Exploration (GOE). The 12 Career Areas are:

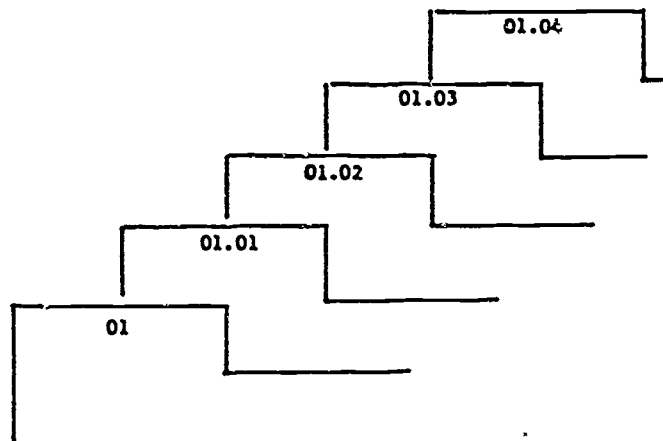
- |               |                        |
|---------------|------------------------|
| 01 Artistic   | 07 Business Detail     |
| 02 Scientific | 08 Persuasive          |
| 03 Nature     | 09 Accommodating       |
| 04 Authority  | 10 Humanitarian        |
| 05 Mechanical | 11 Social/Business     |
| 06 Industrial | 12 Physical Performing |

All resources that can be linked with occupations or with Worker Trait Groups are processed into the system by using a standard method of classifying occupational titles, according to their appropriate Career Area/Worker Trait Group and by filing or indexing the resources.

The vertical file is prepared by making dividers with the Career Area codes and the Worker Trait Group codes. As materials

are processed into the system, they are filed behind the appropriate dividers.

Below is an example of a filing system representing the Career Area/Worker Trait Group structure.



#### Other Filing System Structures

The following is a brief description of eight other systems that have been used to a lesser extent for organizing career information resources.

USOE Fifteen Occupational Clusters. The U.S. Office of Education Career Clusters is a method of categorization more suitable for elementary, middle school, and junior high schools. This system clusters occupations by work environment. The Career Clusters present some difficulties in placing specific occupational titles, but the problem of a job's title appearing in more than one cluster can be solved through primary and secondary assignments.

Bennett Occupations Filing Plan and Bibliography. An alphabetic filing plan in which the subject headings are adapted from the Dictionary of Occupational Titles (DOT), but the DOT code numbers are not used. Plan includes a set of preprinted tabs for file folders and instructions for setting up the system. All types of career materials can be catalogued and filed under this system.

Ann Roe's Two-Dimensional Occupational Classification Scheme (1956). Occupational titles are categorized on one level according to the kinds of activities workers engage in; and jobs that share common factors are clustered. A second dimension is

job stratification according to level of responsibility, skills, or capabilities required.

The basic two-dimensional system was expanded by Roe and Kloss (1972) to include two additional factors that further clarify the nature of contrasting occupational clusters. Factor QI separates interpersonal relations, or working with people, and natural phenomena-oriented occupations. Factor II specifies orientation to purposeful communication or resourceful utilization. With the field and level dimensions of the original system superimposed on the axes created by Factors I and II, the Roe and Kloss system illustrates the degree to which various occupations involve contact with people and the natural sciences, and the type and degree of communication and organization skills they require.

Academic Subject Classification. Occupational materials can be filed according to school subject areas to which they primarily relate. The appropriate occupations related to each subject are organized alphabetically under the subject heading. Students can easily identify with the academic areas and see what occupations are associated with different areas. On the other hand, extensive cross reference is needed since an occupation can pertain to more than one academic area.

Census Classification of Occupations and Industries. Provides an alphabetic and classified index covering several thousands titles, which are classified in occupational and industrial categories. This system has been largely abandoned as a basis for occupational filing systems since the publication of the Dictionary of Occupational Titles.

Fields of Interest or Other Personal Traits. Filed by categories of interests or traits as measured by various instruments or structures of the world of work used in publications. For example, materials can be filed as they relate to an interest inventory such as the 23 OVIS scales or filed by the Holland codes which relate to personality types.

Dewey Decimal System. A modification of the Dewey Decimal System can be used as a filing system. This type of system is one which most people are somewhat familiar with.

Library of Congress Classification System. A library classification using the letters of the alphabet plus numbers for its notation.

## Indexing

As occupational information resources are entered into a filing system, an index card file should be developed for each title. This is necessary in order to identify what resources are available and their location. The cards can be stored in a library file drawer or on a Rolodex.

It is recommended that the DOT main title be used and a cross reference card be developed for alternate titles. This provides a systematic use of the system and related occupations will not be overlooked.

The card should contain group code numbers, titles, or other specific information related to the grouping structure used. In addition, it should contain a reference to all of the resources available that are related to the occupation. Below is an example of a file card used by Wytheville Community College, Wytheville, Virginia.

DOT Main Title Card  
(front)

CLOTHES DESIGNER		01 02
		AREA WTG#
DOT MAIN TITLE		
DOT CODE	142.061-018	ALTERNATE FILE CODE: _____
WTG FILE	<input checked="" type="checkbox"/>	OOH <input checked="" type="checkbox"/> EOC <input checked="" type="checkbox"/>
SUPPLEMENTARY CODES:	Bd4; Av/F5; Av/C3	
REFERENCES:	Kinney; VIEW; ARCO	
EXPERIENCE RESOURCES:	W/E; C.C.; FT	

REORDER ITEM NO 5114



DOT Main Title Card

(back)

OOH (86-87): Designers p. 218

AREO Series: Apparel Designer, Book 6 - Pg. 37  
Costume Designer, Book 14 - Pg. 78  
Fashion Designer, Book 15 - Pg. 11

Finney: Costume Designer, Unit 4C, Vol. 14, No. 18  
Fashion Designer, Unit 1C, Vol. 11, No. 1

VIEW: Fashion Designer, SP10-C6

Note that some resources are referenced by a code such as Work Experience (WE), Career Club (CC), and Field Trip (FT). Students see a counselor for information on these resources and to schedule the activities. In addition, cards contain information on bound references such as the Occupational Outlook Handbook (OOH) as well as computerized systems. However, only one card per title should appear in the card file.

### Managing Occupational Information

The effort needed to maintain a career resource center can be reduced if maintenance procedures are established. Files and materials that are organized and easily accessible encourage use. However, users are discouraged when information is missing or out of place. Time should be set aside periodically to check the system for outdated materials and determine what should be discarded and replaced.

For outdated materials, the standard rule is to discard those materials which are five years old or older. Some

materials may be out-of-date sooner, or may have relevance for a longer period than five years. Therefore, discretion should be used in applying this rule. When materials over five years old are retained, mark their covers with the statement: "CAUTION - MAY CONTAIN OUT-OF-DATE INFORMATION." System users should be informed that specific information contained in these materials such as salaries and job outlook, should be viewed critically.

Outdated materials can be identified by publication or copyright dates and marked or pulled from the system. Materials should be checked to determine what is to be discarded and reordered. This "weeding" process may not be necessary for certain materials, such as commercially published briefs, when a subscription service has been acquired. A commercial subscription service replaces briefs periodically to keep them up-to-date. Or, replacement materials can be acquired by checking with the publisher to see if the material has been revised. Discarded materials on an occupation should be replaced or publications from other sources which cover the same occupational title should be obtained.

Free materials for updating the system may be obtained from such sources as government agencies and professional organizations. Caution should be used in selecting free materials as they may represent biased concepts or recruitment literature.

Occasionally, materials in the system may be misfiled or lost. To insure that materials are filed in the correct divisions a periodic check should be made by scanning the files

weekly or monthly, depending on how frequently the file is used.

Materials should not be kept out of the system for an extended length of time. Refiling should occur as soon as possible by assigned personnel.

If materials are used outside the Career Resource Center or for a prolonged period of time, then a sign-out sheet should be used and a return area determined. The sign-out sheet should be a simple form containing spaces for the student's name, title of the material, and dates checked out and in.

**Division of Career Guidance  
Appalachia Educational Laboratory, Inc.  
P.O. Box 1348  
Charleston, West Virginia 25325**

**September 1988**

## Systems for Organizing Resources

Bennett Occupations Filing Plan and Bibliography: The organizational scheme for this system is based on the field-of-work coding from the Dictionary of Occupational Titles. Plan includes a set of preprinted tabs for file folders and instructions for setting up the system. All types of career materials can be catalogued and filed under this system.

Ann Roe's Two-Dimensional Occupational Classification Scheme. (1956) Occupational titles are categorized on one level according to the kinds of activities workers engage in; and jobs that share common factors are clustered. A second dimension is job stratification according to level of responsibility, skills, or capabilities required.

(1972) The basic two-dimensional system was expanded by Roe and Kloss to include two additional factors that further clarify the nature of contrasting occupational clusters. Factor I separates interpersonal relations, or working with people, and natural phenomena-oriented occupations. Factor II specifies orientation to purposeful communication or resourceful utilization. With the field and level dimensions of the original system superimposed on the axes created by Factors I and II, the Roe and Kloss system illustrates the degree to which various occupations involve contact with people and the natural sciences, and the type and degree of communication and organization skills they require.

USOE Fifteen Occupational Clusters. The U.S. Office of Education Career Clusters is a method of categorization suitable for elementary, middle school, and junior high school career resource centers. This system clusters related occupations together. The Career Clusters present some difficulties in placing specific occupational titles, but the problem of a job's title appearing in more than one cluster can be solved through strict adherence to the distribution of occupations within each cluster.

Academic Subject Classification: Occupational materials can be filed according to school subject areas to which they relate. The appropriate occupations related to each subject are organized alphabetically under the subject heading. Students can easily identify with the academic areas and see what occupations are associated with different areas. On the other hand, extensive cross reference is needed since one occupation can pertain to more than one academic area.

Dewey Decimal System: A modification of the Dewey Decimal System can be used as a filing system. This type of system is one which most people are somewhat familiar with and can easily use. However, in order to implement the system, one needs to know how to set-up the Dewey Decimal System.

SRA Career Information Kit Filing Plan: This plan is based upon the arrangement of titles found in the Dictionary of Occupational Titles. Unbound materials are filed in 174 folders. There are nine folders for the major occupational groups. There are folders for sub-divisions of specific occupations.

Chronicle Plan: This plan is based upon the arrangement of titles by codes found in the Dictionary of Occupational Titles and are arranged in 10 major headings and subdivided into occupational fields.

AEL's Career Information System: This system uses the Dictionary of Occupational Titles main titles and codes materials to the appropriate Career Area/Worker Trait Group numbers. All occupational information is either filed or indexed into the system by Worker Trait Group numbers. Omnibus materials are assigned to the appropriate Career Areas and filed or indexed by Career Area numbers.

DOT Occupational Titles Classification: The DOT coding system is a basis for a filing option. The occupational materials are filed according to the classifications with the Dictionary of Occupational Titles. Through this system all related occupations are placed together.

Census Classification of Occupations and Industries: Provides an alphabetic and a classified index covering several thousands titles, which are classified in occupational and industrial categories. This system has been largely abandoned as a basis for occupational filing systems since the publication of the Dictionary of Occupational Titles.

Alphabetical: Information is filed alphabetically by the name of the occupation.

Fields of Interest or Other Personal Traits: Filed by categories of interests or traits as measured by various instruments or structures of the world of work used in publications.

School Subjects: Same as Academic Subject Classification.

Stations by Categories: Numerical or alphabetical designations are used to denote each station.

Self-Awareness Materials--information designed to assist individual in gaining a better understanding of themselves is located at this station.

College and University Information--resources at this station provide descriptions of colleges and universities throughout the nation.

Career Games--this station contains career games, kits, etc., to provide experiences in decision-making, values clarification, occupational exploration, career planning, and selection.

State Occupational Information Systems--information from a state occupational information system is located at this station. This information in many instances is available on microfiche or computer.

Local Employment Opportunities--placement opportunities are enhanced by this station that identifies up-to-date job opportunities in the local area.

## REFERENCES FOR A CAREER INFORMATION HOTLINE

Call 1-800-542-5870  
for further information

September, 1988

Virginia VIEW  
205 W. Roanoke Street  
Virginia Tech  
Blacksburg, Virginia 24061-0527

### PRIMARY SOURCES--The ones most used

- Billy, C. & Wells, J. (1988). Peterson's guide to independent secondary schools 1988-1989 (9th ed.). Princeton, NJ: Peterson's Guides.
- Colgate, C. (Ed.). (1987). National trade and professional associations of the United States. (22nd ed.). Washington, D.C.: Columbia Books.
- The College Blue Book. (1987). Vols. 1-5 (21st ed.). New York: Macmillan Information.
- Croner, U.H.E. (Ed.). (1985). American trade schools directory. Queens Village, NY: Croner Publications Inc. (Monthly Update).
- X Hopke, W.E. (Ed.). (1987). Encyclopedia of Careers. (3 vols., 7th ed.). Chicago, IL: J.G. Ferguson Publishing Co.
- Index of Majors 1987-88. (1987). (10th ed.). New York: College Entrance Examination Board.
- Lehman, A.E. & Suber, E.A. (Eds.). (1987). Peterson's annual guide to four year colleges, 1988 (18th ed.). Princeton, NJ: Peterson's Guides.
- Lehman, A.E. & Suber, E.A. (Eds.). (1987). Peterson's annual undergraduate guide to two year colleges, 1988 (18th ed.). Princeton, NJ: Peterson's Guides.
- Lehman, A.E. & Suber, E.A. (Eds.). (1987). The 1988 college money handbook. (5th ed.). Princeton, NJ: Peterson's Guides.
- Lovejoy, C.E. (1988). Lovejoy's college guide. (19th ed.). New York: Simon and Schuster.
- Lovejoy, C.E. (1988). Lovejoy's prep and private school guide. (9th ed.). New York: Simon and Schuster.
- Malnig, L.R. and Malnig, A. (1984). What can I do with a major in ...? Ridgefield, NJ: Abbot Press.
- Mangrum, C. & Strichart, S. (Eds.). (1985). Peterson's guide to colleges with programs for learning disabled students. Princeton, NJ: Peterson's Guides.
- Matheson, M. (Ed.). (1987). The college handbook 1987-88. (25th ed.). New York: College Entrance Examination Board.
- Moore, T.C. & Sacchetti, R.D. (1987). Graduate and professional programs, 1988. Princeton, NJ: Peterson's Guides.
- Parnell, D. & Peltasm, J.W. (Eds.). (1985). American community, technical and junior colleges. (9th ed.). New York: Macmillan Publishing Company.
- University Counseling Services and Faculty. (1987). A Guide to majors and careers at Virginia Tech. Blacksburg, VA: Virginia Tech.
- U.S. Department of Defense. (1988). Military career guide, employment and training opportunities in the military, (1988-89). Washington, D.C.: U.S. Department of Defense.
- X U.S. Department of Labor. (1977). Dictionary of occupational titles. (4th ed.). Washington, D.C.: U.S. Government Printing Office.
- X U.S. Department of Labor. (1988). Occupational outlook handbook (1988-89). Washington, D.C.: U.S. Government Printing Office.
- Virginia Occupational Information Coordinating Committee. (1988). Virginia VIEW (Vital Information for Education and Work). Microfiche, Blacksburg, VA: Virginia Tech, College of Education (producer).

### SECONDARY SOURCES

- American Legion Education Program. (1988). Need a lift? (37th ed.). Order \$1.00 prepaid from: The American Legion, National Emblem Sales, P.O. Box 1050, Indianapolis, IN 46206.
- Cassidy, D.J. & Alves, M.J. (1988). The scholarship book (NSRS). Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Health careers reference manual. (1988). (8th ed.) Richmond, VA: Virginia Council on Health and Medical Care, 1989.
- HEP 87 higher education directory. (1987). Washington, D.C.: Higher Education Publications, Inc.
- Jobst, K. (Ed.). (1986). 1987 internships. Cincinnati, OH: Writer's Digest Books.
- The Macmillan guide to correspondence study. (1988). New York: Macmillan Publishing Co.
- Ready, B.C. & Sacchetti, R.D. (1986). The independent study catalogue. Princeton NJ: Peterson's Guides.
- The Robert Leider Series on Financial aid available from Octameron Associates, Inc., Alexandria, VA.
1. Don't miss out: The ambitious student's guide to scholarships and loans 1986-87. (\$2.75).
  2. Fabisch, V.A. (1985). The As and Bs, your guide to academic scholarships 1986-87.
  3. College loans from Uncle Sam: The borrower's guide that explains all 1985-87. (\$1.50).
  4. College loans from Uncle Sam: Am I eligible and for how much? 1986-87. (\$1.50).
  5. How we do it: Admission procedures at the nation's most competitive colleges 1984. (\$1.50).
  6. Earn & learn: Cooperative education opportunities with Uncle Sam 1986-87. (\$1.50).
- The student guide for five federal financial aid programs (1988-89). (Free). Call 1-800-333-4636.

## OTHER USEFUL SOURCES

- Achabel, C.J. (Ed.). (1986). 1987 Summer employment directory of the United States. Cincinnati, OH: Writer's Digest Books.
- Allen, J.S. & Gorkin, J. (1985). Finding the right job at midlife. New York: Simon & Schuster.
- Biegeleisen, J.I. (1987). Make your job interview a success. New York: Simon & Schuster.
- Bloch, D.P. (1988). How to get and get ahead on your first job. Lincolnwood, IL: VGM Career Horizons.
- Block, D.A. (1987). How to have a winning job interview. Lincolnwood, IL: VGM Career Horizons.
- Bolles, R.W. (1987). What color is your parachute? Berkeley, CA: Ten Speed Press.
- Brennan, L.D., Gruber, E.C., & Strand, S. (1987). Resumes for better jobs. New York: Prentice Hall Press.
- Cassidy, D.J. & Alves, M.J. (1987). The scholarship book (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.
- Eisenberg, G.G. (1986). Learning vacations (5th ed.). Princeton, NJ: Peterson's Guide.
- Farrar, R.T. (1984). College 101. Princeton, NJ: Peterson's Guides.
- Haponski, W.C. & McCabe, C.E. (1985). New horizons: The education and career planning guide for adults. Princeton, NJ: Peterson's Guides.
- Kaye, K.R., Henne, R.E., & Bohlander, R.E. (Eds.). (1988). Peterson's higher education directory 1988. Princeton, NJ: Peterson's Guides.
- Lehrman, A.E. & Kaye, K.R. (Eds.). (1987). Peterson's guide to colleges in the middle atlantic states 1988. Princeton, NJ: Peterson's Guides.
- Leider, R. & Leider, A. (1987). Lovejoy's guide to financial aid (2nd ed.). New York: Simon & Schuster.
- Moore, D. (1985). Financial aid officers: What they do to you and for you. 1986-87. Alexandria, VA: Octameron Associates, Inc.
- Munschauer, J.L. (1986). Jobs for English majors and other smart people. Princeton, NJ: Peterson's Guides.
- Nadler, B.J. (1986). Liberal Arts jobs. Princeton, NJ: Peterson's Guides.
- Phifer, P. (1987). College majors and careers: A resource guide for effective life planning. Garrett Park, MD: Garrett Park Press.
- U.S. Department of State. (1986). Foreign Service careers. Washington, D.C.: U.S. Government Printing Office.

## USEFUL LISTS/NUMBERS

- Area Voc-Tech Centers in Virginia  
Division of Voc. Program Service  
Department of Education  
P.O. Box 60  
Richmond, VA 23216
- Military Service Toll-Free Recruitment Nos.  
Navy 800/327-NAVY  
Army 800/872-2769  
Marines 800/552-9548  
Air Force 800/531-5980  
(Medical recruiting only)  
Coast Guard 800/424-8883
- Virginia Association of Private Career Schools  
10800 Staples Mill Road  
Richmond, VA 23230
- NHSC 1987-88 Directory of Accredited Home Study  
Schools, National Home Study Council  
1601 18th St., NW  
Washington, DC 20009
- Department of Rehabilitative Services  
4901 Fitzhugh Avenue  
Richmond, VA 23230
- Virginia Educational Directory School Year 1988  
Department of Education  
P.O. Box 60  
Richmond, VA 23216
- Directory of Federal Personnel Offices  
Offices of Personnel Management  
Washington, DC 20415
- Delores Esser, Executive Director  
Virginia Occupational Information Coordinating Committee  
Virginia Employment Commission  
P.O. Box 1358  
Richmond, VA 23211
- Federal Workstudy Loans & Grants  
800/333-4636  
Hours: 9 a.m. - 5:30 p.m., Monday - Friday
- Virginia's General Educational Development Testing  
Program, Department of Education  
P.O. Box 60  
Richmond, VA 23216
- Financing Your College Education  
An Introduction to Financial Aid Opportunities in VA (Brochure)  
State Council of Higher Education  
James Monroe Building  
101 N. Fourteenth Street  
Richmond, VA 23219
- Virginia VIEW  
205 W. Roanoke Street  
Virginia Tech  
Blacksburg, VA 24061-0527  
800/542-5870 or 703/961-7158

## INFORMATION SHEET

### Virginia VIEW, Career Information Delivery System

Virginia Tech, 205 W. Roanoke Street, Blacksburg, VA 24061-0527

The Federal Education Amendments of 1976 & subsequent legislation mandated the creation of State Occupational Information Coordinating Committees which must implement comprehensive Occupational Information Systems to serve the needs of planners, career counselors & others. The Virginia Occupational Information Coordinating Committee (VOICC) has awarded a contract to Virginia Tech to develop & disseminate a Career Information Delivery System, VIRGINIA VIEW.

#### Virginia VIEW (Vital Information for Education and Work)

#### THE INFORMATION

The MICROFICHE FILES - The Virginia VIEW system provides information on the 371 major occupations in which most Virginians are employed. The system is based on the Michigan Occupational Information System and revised to contain Virginia state & local data. Additional files provide information on secondary school subjects, apprenticeships, military (enlisted & officer) training financial aid, postsecondary schools & other training opportunities in Virginia. PREVIEWS, an abbreviated format of the Occupational Files, written on a 4-5th grade level is available on MICROFICHE.

INTERACTIVE VIEW - During 1988 - 89 the following will be made available for IBM-XT & compatible microcomputers with 20 mb hard disk storage: the CAREER SEARCH, Occupational Files, Post Secondary School Files and Financial Aid Files.

The CAREER INFORMATION HOTLINE - The toll-free HOTLINE number, 800-542-5870, provides answers to inquiries related to post secondary education and job training opportunities, occupational licensing in Virginia, job outlook information, apprenticeships, as well as general occupational-educational information. HOTLINE hours are 8 AM - 5 PM, Monday through Friday, except state holidays. Over 23,400 persons throughout the Commonwealth have called the Hotline since its inception in 1980.

THE CAREER HUNT - This tabloid provides occupational & educational information in a newspaper format. Over 130,000 CAREER HUNTS were distributed at the beginning of 1988.

The VOICC NEWSLETTER - A VOICC Newsletter, FORUM, is printed & disseminated to those concerned with occupational & educational information activities.

#### THE ACCESSING STRATEGIES

The CAREER SEARCH - The Virginia VIEW Career Search is an accessing strategy to the MICROFICHE & INTERACTIVE VIEW. The user indicates on the CAREER SEARCH self-assessment inventory preferences such as interests, physical capabilities, areas of work, physical strengths, working conditions, education & temperaments. Indicated preferences are matched with occupational titles using either a microcomputer or a paper and pencil hand scan.

The Virginia VIEW COLLEGE SEARCH - This Search matches user preferences in seven areas (length, affiliation, size of surrounding community, admissions selectivity, enrollment, region of state, and cost) to Virginia community colleges, 2-year colleges & 4-year colleges & universities. The COLLEGE SEARCH serves as an accessing strategy to information on Virginia Colleges found in the MICROFICHE in the Postsecondary School Files & Financial Aid Files.



## A SUMMARY of the Virginia Career Information HOTLINE

<b>Age:</b> 14 & under 835	<b>Sex:</b> Male 8762	<b>Rating of Service:</b>
15 - 18 2260	Female 12,911	Helpful 4,245
19 - 30 7298	<b>TOTAL</b> 21,673	Very Helpful 11,996
31 - 45 5341		Of No Help 186
46 - 65 671		<b>TOTAL</b> 16,427
Over 65 16		
<b>TOTAL</b> 17,421		

### Work status:

In School 6157
Re-entering School 1654
Entering Work 1161
Re-entering Work 1997
Changing 3556
Counselor(s) 1000
<b>TOTAL</b> 15,525

### Geographic region of the state:

Lynchburg 856
Newport News/Hampton 1647
Norfolk/Portsmouth 3643
Petersburg 536
Richmond 3598
Roanoke 1529
Northern Virginia 2429
All Other Regions 7492
Not Available 2223

## HOW DID YOU HEAR ABOUT THE HOTLINE?

Workshop 101	TV 1802	Radio 347	Newspaper 1452	School 1851
College 1115	VEC 817	Poster 1286	Bookmarks 1169	Library 162
Telephone Book 419	Counselor 2891	Other 3435	<b>TOTAL</b> 16,847	

In the first two years, 8 months of service, the HOTLINE has been used by 23,400 persons throughout the Commonwealth. The HOTLINE hours are from 8 AM - 5 PM, Monday through Fridays, except holidays.

### TIME OF CALL

	8 - 12 AM	12 - 5 PM	TOTAL
MONDAY	2146	2937	5083
TUESDAY	2235	2928	5163
WEDNESDAY	2043	2855	4898
THURSDAY	1948	2569	4517
FRIDAY	1698	2044	3742
<b>TOTAL</b>	<b>10,070</b>	<b>13,333</b>	<b>23,403</b>

For further information contact:

**CARL McDANIELS, Project Director**  
 Virginia Tech, 205 West Roanoke Street, Blacksburg, VA 24061-0527  
 (703) 961-7571 or 1-800-542-5870

August 31, 1988

Appendix A  
Listing of Contributing Publishers/Distributors to the ECD  
Project

This is a listing of contributing publishers/distributors and the specific materials they have donated to the Education for Career Development Project as of January 12, 1986.

PUBLISHERS/DISTRIBUTORS

MATERIALS DONATED

Accelerated Development, 1400  
Wilgore Avenue, Muncie, IN  
47304

books: Consideration;  
Practice & Preparation;  
Counselor's Book; 12100;  
Enhancing Self-Esteem;  
Marriage and Family;  
Better Ready Than Born;  
Coming Within the  
Alcoholic Family; and  
Helping Children Cope  
with Grief

Alphons J. Hackl, President,  
Acropolis Books, Ltd., 2400  
17th Street, NW, Washington, DC  
20009

books: America's New  
Women Entrepreneurs;  
America's New Breed of  
Entrepreneurs; Fast Time  
Professional; Simple  
Facts About How to Have  
More Money; Making It on  
Your Own; Earn College  
Credit for What You Know;  
To Be a Congressman and  
Computer Confidence

Mary Beth Gayheart, Allyn and  
Bacon, Inc., Rockleigh, NJ  
07647

book: Major Psychological  
Assessment Instruments

American Association for  
Vocational Instructional  
Materials, The National  
Institute for Instructional  
Materials, 120 Dittmer  
Engineering Center, Athens, GA  
30602

American Guidance Service,  
Publishers Building, Circle  
Pine, MN 55014

American Legion Education  
Program, American and Child  
& Youth Division, Indianapolis,  
IN 46206

Deborah Phillips, Bell & Howell,  
Micro Photo Division,  
Publications Products, Old  
Mansfield Road, Woodser, Ohio  
44691

Bennett McKnight, 17337 Ventura  
Boulevard, Encino, CA 91316

Claire Verduin, Brooks/Cole  
Publishing Company, 555 Abrego  
Street, Monterey, CA 97940

10/8/86 sent Vocational  
Competency Measures

5 specimen sets of the  
Harrington-G'Shea Career  
Decision Making System  
(CDMS) & Data Disquette  
and 1 prototype printout  
letter of 9/18/86.  
promises in addition: 1  
CDM Microcomputer, 1  
Guide for Vocational  
Exploration and 1 Career  
Planning Handbook for  
Special Needs Students

2 copies of Need a Lift?

booklet: How to Find  
Career Guidance Programs

book: Succeeding in the  
World of Work

books: Using Assessment  
Results For Career  
Counseling and Counseling  
Programs for Employees in  
the Workplace

Paul Fiedzik, Grilly Curtis Co.,  
1111 N. Las Palmas Ave.,  
Hollywood, CA 90038

film: The Time of Your  
Life

Career Dynamics, Inc., POB 501,  
Bloomfield, CO 80020

book: Group Career  
Dynamics and 2 Career  
Folders

Career Research and Testing,  
2005 Hamilton Avenue, Suite  
250, San Jose, CA 95125

Motivated Skills Card  
Sort Kit; Career Values  
Card Sort Kit and  
Occupational Interest  
Card Sort Kit

Robert A. Alexander and Phil  
Jarvis, CSS Corporation, 277  
South Washington Street, Suite  
209, Alexandria, VA 22314

software: CHOICES, Jr.

Charles E. Merrill Publishing  
Company, 1300 Elm Creek Drive,  
Box 202, Columbus, Ohio

book: Lifelong Career  
Planning

Blaine Duncan, Marketing  
Manager, Chronicle Guidance  
Publication, Inc., Aurora  
Street, Moravia, NY 13188

Chronicle Occupational  
Library and software: GO  
LECT, Jr.

The College Board, 888 Seventh  
Avenue, New York, NY 10106

Books: The Admission  
Strategist, College  
Recruiting in the 90's;  
Academic Preparation for  
College; How to Decide;  
and College to Career

Nan Holland, Public Relations,  
CompCare Publications, 2415  
Annapolis Lane, Minneapolis, MN  
55441

books: An Elephant in the  
Living Room, The  
Children's Book; An  
Elephant in the Living  
Room, A Leader's Guide,  
and Anorexia Nervosa

Consulting Psychologists Press,  
Inc., POB 60070, Palo Alto, CA  
94306

speciman set and Manual  
for the California  
Psychological Inventory  
and Manual for the Revised  
Ericks Type Indicators: A  
Guide to the Development  
and Use of the MB:I and  
Gifts Differing

CTE/McGraw-Hill  
Hightstown/Princeton Road,  
Hightstown, NJ 08520

speciman set: Planning  
Career Paths and specimen  
of Doc-U-Sort

Lisa Lee, Evaluation  
Consultant,  
EDITS, POB 7234, San Diego, CA  
92107

speciman sets of: COPE,  
COPE-2, and COPE-3

Shelly Kauer, Education  
Associates, Inc., 8 Crab  
Orchard Road, POB 5, Frankford,  
NJ 40602

software: Life and Career  
Planning

Educational Testing Service,  
Publications Order Service, CI:  
6706, Princeton, NJ 08541

booklet: Focus Beyond  
Computer Literacy

Gorsuch Scarsbrick Publishers,  
8233 Via Paseo Del Norte,  
Suite E-400,  
Scottsdale, AZ 85253

books: The Career Fitness  
Program Exercising Your  
Options and The Job Game: A  
Career Handbook

J. G. Ferguson Publishing  
Company, 111 E. Wacker Drive,  
Chicago, IL 60601

Encyclopedia of Careers

Garrett Park Press, Garrett  
Park, MD 20896

complete set of posters of  
pool: Careers In Mental  
Health

Ronald Krannick, Ph.D., Impact  
Publications, Careers  
Department, 10655 Big Oak  
Circle, Manassas, VA 22111

book: The Complete Guide  
to Public Employment

Marilyn Johnson, Marketing  
 Consultant, Institute for  
 Personality and Ability  
 Testing, Inc., POB 195,  
 Champaign, IL 61820

books: Self-Initiated  
 Career Planning Kit and  
two Personal Career  
 Development Profile  
 Manuals

E. Ty Gardner, President,  
 Cambridge Career Products,  
 Jefferson Software, 723 Kanawa  
 Boulevard, East, Charleston, WV  
 25301

demonstration disk: Career  
 Directions

Pam Rone, Johnson/Rudolph  
 Training & Development, Inc.,  
 1004 State Street, Bowling  
 Green, KY 42101

videotape: The Employment  
 Interview

Kathryn L. Haten, Special Sales  
 Coordinator, Jossey-Bass Inc.,  
 Publishers, 433 California  
 Street, San Francisco, CA 94104

book: Dual Career  
 Families and Changing  
 Careers

Meridian Education Corporation,  
205 E. Locust Street,  
Bloomington, IL 61701

software: Career Compass;  
sound filmstrips: Career  
Choice and Job Search;  
books: Career Choice and  
Job Search with  
Instructor's Manual;  
Children's Dictionary of  
Occupations;  
A Helping Hand: Adult  
Career Counseling; and  
Career Information in the  
Classroom: A Workshop  
Guide

National Computer Systems,  
Professional Assessment  
Services, POB 1416,  
Minneapolis, MN 55440

specimen set: Career  
Assessment Inventory

Earl W. Coleman, President,  
National Publishers of the  
Clark Hills, Inc., 137 East  
Main Street, Elmsford, NY 10523

book: Your Job, Your  
Future

Gail L. Cassel, Trade Sales  
Manager, National Pestcock  
Company, 2855 Touhy,  
Lincolnwood, IL 60466

books: Opportunities  
In...series: Banking;  
Business Management;  
Chiropractic Health  
Careers; Counseling and  
Development;  
Environmental Careers;  
Foreign Language Careers;  
Law Careers and Nutrition  
Careers

Tom Ellison, The New Careers  
Center, 6003 N. 51st Street,  
POB 297, Boulder, CO 80306

books: How to Work for a  
Living and Still be Free  
to Live and 900,000 Plus  
Jobs Annually

Pennsylvania College of  
Optometry, 1200 West Godfrey  
Avenue, Philadelphia, PA 19141

Booklet: Admission of  
Schools of Optometry

Peterson's Guides, Linda  
Coumeri, Account  
Representative, Box 2123,  
Princeton, NJ 08549

software and books:  
Peterson's College  
Selection Service (4 yr);  
Peterson's Financial Aid  
Service; Peterson's  
College Selection Service  
(2 yr); Peterson's SAT  
Success for Micro;  
Peterson's Career  
Planning Service;  
Peterson's  
Engineering/High Tech  
Student Handbook and  
Peterson's Guide to  
Opportunities for Kids  
and Teenagers 1989

Pro-Ed, 5341 Industrial Blvd.,  
Austin, TX 78735

books: Career, Computers  
and the Harpagonian and  
A Guide to Social Self  
Assessment

Psychological Assessment  
Resources, Inc., POB 998,  
Odessa, FL 33556  
Research Press, 2612 Mattis  
Avenue, Champaign, IL 61821

specimen set of Self  
Directed Search

books: Shop Talk and Shop  
Studying, Start Learning

Barlene Labadie, Director of  
Administration, Research  
Psychologists Press, Inc., 110  
Military Street, POB 984, Port  
Huron, MI 48061

test: Johnson Vocational  
Interest Survey Manual  
and 1 CVIS test booklet  
and 1 complimentary  
computer scoring sheet  
and sample printouts

Rod W. Durgin, Ph.D.,  
Publisher, Resource  
Directories, 3103 Executive  
Parkway, Suite 212, Toledo,  
Ohio 43606

book: Guide to Federal  
Jobs



Roger Rosen, Publisher. The  
Rosen Publishing Group, 29 East  
21st Street, New York, NY 10010

books: Blood, Sweat and  
Tears: Calculating Your  
Career Costs: Coping with  
Family Violence: Coping  
with School Aged Suicides:  
Coping with  
Discrimination: Coping  
with Stepfamilies: Coping  
with Academic Anxiety:  
Coping with AIDS and  
Coping with Your Image

David A. Hietala, Publisher.  
RFM Press, Inc., POB 157, South  
Farwell Street, Verndale, MN  
56481

book: Guide to Basic  
Skills Jobs, Vol. 1

Kim McManus, Associate Director  
of Services, 70001 Training &  
Employment Institute, West  
Wing, Suite 300, 600 Maryland  
Avenue, SW, Washington, DC  
20024

notebook: the 70001 Job  
Readiness Curriculum

Ronald R. Fry, Materials  
Development Center, Stout  
Vocational Rehabilitation  
Institute, School of Education  
and Human Services, University  
of Wisconsin-Stout, Menomonie,  
WI 54751

books: Functional  
Assessment Manual and A  
Comparison of Commercial  
Vocational Evaluation  
Systems

Ten Speed Press, POB 7123,  
Berkeley, CA 94707

books: The Job Hunt and  
the 1986 What Color is  
Your Parachute?

Raymond D. Fellers, President,  
University Press of America,  
Inc., 4720 Boston Way, Lanham,  
MD 20706

books: Making Life Plans:  
Skills of Living: Help  
for Job Hunters: and The  
Engineering Profession

Ms. Pat Behnen, Vocational  
Biographies, POB 71, Saul  
Centre, MN 56378

Starter Library

Walker and Company, 720 Fifth  
Avenue, New York, NY 10019

book: The Career: A Career  
Encyclopedia

Larry Lebowitz, Assistant  
Marketing Manager, Walt Disney  
Educational Media Company, 500  
South Buena Vista Street,  
Burbank, CA 91521

William Kaufmann, Inc., 95  
First Street, Los Altos, CA  
94022

Susan Dunn Weinberg, Asst. to  
the President, Western  
Psychological Services, 12031  
Wilshire Boulevard, Los  
Angeles, CA 90025

filmstrip set: Disney's  
Career Planning Program

book: The High-Tech  
Career Book

books: WPS Career  
Planning Program: Student  
Handbook and WPS Career  
Planning Program:  
Leader's Handbook