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INSTITUTION Peat, Marwick, Mitchell and Co., Washington, D.C.

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ABSTRACT

The document contains an assessment instrument, developed by three teams of educators, designed to assist career education practitioners in identifying, classifying, and evaluating career education instructional materials to determine the usefulness of a particular unit of material in a specific local situation. It also contains suggestions of sources from which career education instructional materials or information may be obtained. The instrument, which operates on a point-scoring basis, treats six aspects of the material: identification, quality, special conditions for use, content bias, research data provided, and summary evaluation. The bulk of the document consists of the instrument itself and a detailed outline on its use, including definitions of terms and an explanation of some of the individual items of the instrument. Appended are a list of sources of career education materials and a list of more than 100 non-copyrighted career education instructional units, indexed by State, which were developed by local school districts and State departments of education and chosen for inclusion because they seemed to be well-developed and potentially useful for career education programs. (Author/PR)

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A SYSTEMATIC APPROACH TO EVALUATING CAREER EDUCATION MATERIALS AT THE LOCAL LEVEL

Prepared for
OFFICE OF CAREER EDUCATION
UNITED STATES OFFICE OF EDUCATION

NOVEMBER 1974

EDUCATIONAL RESOURCES CENTER
1701 M STREET, N.W.
WASHINGTON, D.C. 20036
EDUCATION

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Prepared by



PEAT, MARWICK, MITCHELL & CO.

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I. BACKGROUND

NATIONAL EFFORT

Since 1971 the U. S. Office of Education has sponsored three national efforts involving a search for and assessment of career educational curriculum materials. The first project, carried out in 1971 by Palo Alto Educational Systems (PAES), was directed at acquiring and assessing noncommercially produced career education materials from such sources as university departments of education, State departments of education, school districts, specially funded curriculum development projects, and professional associations. The second project, carried out by Peat, Marwick, Mitchell & Co. in 1972, was a nationwide survey and assessment of commercially prepared career educational materials. The third project, conducted by Peat, Marwick, Mitchell & Co. in 1974, was to select 30 units of noncopyrighted materials which would then be edited and reproduced by the Curriculum Management Centers and subsequently distributed to interested school districts by the Research Coordinating Units located in each of the 50 States.

NEED FOR ASSESSMENT PROCESS

With the increased interest and involvement of numerous local level practitioners in career education curriculum development, the U. S. Office of Education recognized the need for both an assessment process by which the practitioners could perform their own evaluations and a listing of sources from which they could obtain career education instructional material. This document contains two products, both of which evolved from the three national assessments sponsored by the U. S. Office of Education and which should help meet this need:

A refined version of the assessment instrument developed by the education professionals who served on the three assessment teams. The teams were made up of educators from local public schools, State departments of education, and universities.

Suggestions of resources from which local practitioners can obtain career education instructional materials or information about such materials for assessment purposes.

II. EVALUATION OF MATERIALS

IMPORTANCE OF EVALUATION

Career education is important to people in many local educational agencies. People who believe in the concept, however, find that there is a need for instructional materials to "back up" the concept in practice.

The first two national research projects were search and screen efforts to identify potential career education materials from both the public and private sectors. The third and most recent project was an evaluation of units of noncopyrighted materials for subsequent reproduction and distribution to interested school districts by State Research Coordinating Units. The results of these projects have been reported in several publications (see Appendix A). In addition to a bibliography of potentially usable materials, the projects also developed a system of assessing materials, as to how they would fit into a local education agency's curriculum materials acquisition process. In this system, individual personnel can also benefit by learning, through materials evaluation, what career education is all about and how it would fit into the discipline areas and grade levels closest to their interests. Thus, as people are involved in the assessment of materials, several outcomes can occur:

As the assessors learn the terms of career education, a better understanding of the concept usually results. Thus, it is possible for both new and experienced teachers to profit from the process, which can be described as a form of in-service training.

The assessment can be one input into a systematic evaluation of materials utilized in a district.

Each assessment can be a means of a district-wide cataloging of materials available. In order to obtain greater benefits from the use of the assessment process, it is suggested that a central clearinghouse for career education instructional material be established. Such a clearinghouse would provide a central place where many practitioners can benefit from the assessment done by one.

Evaluating materials is, of course, a subjective task. The evaluator (assessor) interprets terms, regardless of definition, on the basis of his own background and professional training as well as his

own view of what is "best" in instruction in his locale. This is as it should be since career education as a curriculum thrust can only be viable in a given situation if it contributes to that which the local people decide is best.

The assessment instrument in this report is designed to assist career education practitioners in identifying, classifying, and evaluating career education instructional material to determine the usefulness of a particular unit of material in a specific situation.

A SYSTEMATIC APPROACH

The assessment instrument is divided into six tasks.

- . Task 1 identifies the material and determines whether or not it really fits career education goals.
- . Task 2 establishes the quality of the material.
- . Task 3 assists the assessor in determining whether the conditions under which the material may be used are such that additional training, facilities, etc., are not required.
- . Task 4 provides the framework for measuring the objectivity of the materials in terms of job denigration, racial, ethnic, religious, or sexual bias.
- . Task 5 relates to research previously done on the instructional material and informs the assessor of past performance of the material and the conditions under which it was used.
- . Task 6 is a summation of the entire assessment.

Two suggested exit points have been established: the first relates to career education goals and the second to content bias. These are points at which it is recommended that material be removed from the assessment process if it is determined that the material cannot meet the established criteria.

Part IV provides instructions on using the assessment document. Appendix A suggests sources from which the assessor may learn of additional units of instructional material. Appendix B contains a listing of instructional materials identified by PMM&Co. in the search and assessment of materials in the public domain.

SECTION III
THE ASSESSMENT INSTRUMENT

SECTION III.
ASSESSMENT INSTRUMENT

TASK 1.0 IDENTIFICATION

1.1 Document Identification and Source.
The first task is to identify the material.

Title _____
Author _____
Publisher/Source _____
Address _____
Retrieval Number if in ERIC
or Other Retrieval System: _____
Date Published _____
Cost (if known) _____

Name of District _____
Assessor _____
Position
(Include Grade Level) _____
Date Assessed _____
Document Number in District's
System _____
Exited at EXIT 1 Yes No
Exited at EXIT 2 Yes No
Summary Rating of the Material:
 High Usefulness
 Average Usefulness
 Low Usefulness

1.2 Format. Further classify the material as to what it is, and for which group of users, department of the school, and for which grade level it is appropriate.

1.2.0 Packaging (Check one.)

- Single Piece (Item)
- Set of Independent Items
- Set of Related Items

1.2.1 Type of Material (Check all appropriate items.)

A. Printed Materials

- Instructional Unit
- Teacher's Guide
- Curriculum Guide
- Instructional Module for Student
- Student Workbook or Manual
- Laboratory/Practice Manual
- Textbook
- Simulation Situation
- Evaluation Instrument
- Administrative Material
- Bibliography or Directory
- Supplementary Reference Material for Student
- Other _____

B. Audiovisual Materials

- Records, Discs
- Audio Tapes
- Transparencies
- Models/Mock-Ups
- Flat, Pictures
- Posters
- Charts and Graphs
- Single Concept Loops
- Films 8 mm 16 mm
- Filmstrips
- Cassettes
- Videotapes
- Slides
- Other _____

C. Manipulative Materials

- Puzzles
- Laboratory Kits
- Puppets/Dolls/Figures
- Activity Kits
- Tools and Related Items
- Games
- Blocks and Related Items
- Rods/Counters/Etc.
- Other _____

1.2.2 Grade, Reading, and Comprehension Levels
(Check at least one level for both categories.)

Designed Grade Level	Estimated Reading Level
<input type="checkbox"/> Early Elementary (K-3)	<input type="checkbox"/>
<input type="checkbox"/> Upper Elementary (4-6)	<input type="checkbox"/>
<input type="checkbox"/> Middle School (7-9)*	<input type="checkbox"/>
<input type="checkbox"/> Senior High School (10-12)	<input type="checkbox"/>
<input type="checkbox"/> Post Secondary (13-14)	<input type="checkbox"/>

1.2.3 Who Will Use It?

- Students
- Instructional Personnel
- Support Service Personnel
- Parents
- Community at Large
- Business/Labor/Industrial/Professional Persons
- Other _____

1.2.4 Special Learning Needs**

Is the item directly aimed at a student with a special learning need?

YES (Check appropriate items below.) NO

- Gifted and Talented
- Mentally Retarded
- Physically Handicapped (Specify: _____)
- Emotionally Disturbed
- Culturally Deprived

1.2.5 Activity Areas

A. Subject-Matter Area or Co-curricular Activity Toward Which Materials are Directed*

- Agriculture
- Art
- Business
- Distributive Education
- English Language Arts
- Foreign Languages
- Health Occupations Education
- Health and Safety in Daily Living, Physical Education and Recreation
- Home Economics
- Industrial Arts
- Mathematics
- Music
- Natural Sciences
- Office Occupations
- Social Sciences/Social Studies
- Technical Education
- Trade and Industrial Occupations
- General Elementary and General Secondary Education
- Differentialized Curriculum for Handicapped Pupils
- Co-curricular Activities
- Safety and Driver Education
- Junior ROTC

*Recognizing geographic variance, a commonly used range has been selected.

**The categories in 1.2.4 and 1.2.5A are taken directly from Handbook VI, Standard Terminology for Curriculum and Instruction in Local and State School Systems, U.S. Department of Health, Education, and Welfare, 1970, O.E. -23052.

1.2.5 (Cont.)

B. Other Content Areas

- Career Guidance/Counseling
- Career Information
- Community Relations
- Evaluation
- Follow-Up
- Management
- Placement
- Staff Development
- Work Experience
- Other _____

1.2.6 Instructional Approaches
(Check one or more.)

- Self-Instructional
- Lecture
- Discussion
- Programmed Instruction
- Modeling
- Simulation or Gaming
- Individualized Projects
- Role Playing
- Field Observations
- Self-Evaluation
- Demonstrations
- Drill and Practice
- Individual or Group Counseling
- Supervised Work Experience
- Lab Practice
- Dramatic Activities
- Other _____

1.2.7 Objectives of Materials
(Check one or more.)

The following are suggested goals from the U.S. Office of Education. The user may substitute alternate goals.

This material will help students to:

- Increase their self-awareness.
- Increase their basic academic/vocational skills.
- Increase their awareness of work values and their desire to engage in paid and/or unpaid work.
- Increase their awareness of and knowledge about work.
- Increase their competency in career decision-making skills.
- Learn good work habits.
- Demonstrate work-seeking and work-getting skills.
- Be successful (when leaving the formal educational system) in being placed in a paid occupation, in further education, or in unpaid work that is consistent with their current career education.
- Be aware of means available for continued education once they have left the formal educational system.

Does the material meet one or more of the goals of career education? If the answer is no, it is suggested that the assessment process stop and that the material be exited (rejected).

YES

NO

EXIT 1

TASK 2.0 QUALITY: This task has to do with the quality of the materials. How valuable are they? Would you use them? Would you recommend them to others? The first part of this task has to do with determining the adequacy of the content in terms of the goals prescribed.

2.1 Adequacy and Consistency. Are goals and specific objectives contained in the material? Does the content support these goals and objectives?

2.1.1 To what extent are the overall objectives or goals for which the materials have been designed clearly set forth? (Objectives are the broad purposes of the material.)*

- 3 Not applicable. 1 No objectives are identified. 5 Objectives are clearly stated, but are vague and/or need to be improved upon.

2.1.2 To what extent is the nature and scope of the material content adequate to reach the objectives?

- 3 Not applicable. 1 There is no evidence that material content is directed toward defined objectives. 5 Material content is directed to attain its objectives in clear, accurate, and consistent terms.

2.1.3 To what extent are expected outcomes through use of material identified? (Outcomes are specific learnings which the student is expected to accomplish.)

- 3 Not applicable. 1 Outcomes are not cited or are inadequate. 5 Outcomes in terms of behavior and/or level of performance are clearly indicated.

2.1.4 To what extent are there sound methods for measuring achievement consistent with the expected outcomes?

- 3 Not applicable. 1 None are indicated. 5 Methods are identified but improvements should be made. 5 Techniques, procedures, schedules are adequate.

*An explanation of the scoring system is found in Part IV under Task 2.0.

2.1.5 Is the organization and presentation of the content consistent with objectives and outcomes?

- 3 Not applicable. Material is not well organized and/or as poorly presented. Material is generally well organized and presented, but improvements should be made. Material content is well organized and few inconsistencies were identified.

2.1.6 Is the format of the material adequate for easy usage?

- 3 Not applicable. Format does not facilitate its use. Format is adequate but needs improvement. Format facilitates its use.

2.1.7 Is the material content consistent with growth and development characteristics (physical, emotional, social, and intellectual) of target groups?

- 3 Not applicable. Content is directed to one growth and development characteristic. Content is directed to two growth and development characteristics. Content is directed to three or more growth and development characteristics.

2.1.8 Are the methods suggested for the presentation of the content consistent with current knowledge of sound learning theories?

- 3 Not applicable. There is little evidence of consistency. Improvements are necessary to make suggested methods consistent. Methods for presentation consistently reflect awareness and application of sound learning theories.

2.1.9 Are the methods suggested for the presentation of content consistent with current knowledge of student motivational techniques?

- 3 Not applicable. There is little evidence of consistency. Improvements are necessary to make suggested methods consistent. Methods for presentation consistently reflect awareness and application of sound student motivational techniques.

TOTAL RAW SCORE FOR TASK 2.1 (Transfer score to Objective Rating Box on page 14).

2.2 Evaluation Procedures. Does the material include a sound evaluation process which assists the user in measuring student needs and accomplishments?

2.2.1 To what extent are techniques and procedures for sound evaluation specified?

- 3 Not applicable. 1 Techniques and procedures are not specified. 3 Techniques and procedures are specified but cannot be easily modified for special user requirements. 5 Techniques and procedures are clearly identified and sufficiently flexible to meet unique user needs.

2.2.2 Are there provisions for pre-testing?

- 3 Not applicable. 1 No. 3 Pre-testing is recommended, but techniques and procedures for doing so are inadequate. 5 Techniques and procedures are clearly set forth and adequate.

2.2.3 Are there provisions for post-testing?

- 3 Not applicable. 1 No. 3 Post-testing is recommended, but materials and procedures for doing so are inadequate. 5 Materials and procedures are clearly set forth and adequate.

2.2.4 To what extent are there provisions for individual and group diagnostic testing?

- 3 Not applicable. 1 None. 3 Techniques and procedures exist but they require greater detail and/or clarity for general application. 5 Sound techniques and procedures exist for both individual and group testing.

2.2.5 To what extent are remediation procedures identified?

- 3 Not applicable. 1 None. 3 Procedures exist but additional direction is needed for specific applications. 5 Sound procedures exist for remediation and specific applications.

TOTAL RAW SCORE FOR TASK 2.2 (Transfer score to Objective Rating Box on page 14).

2. 3 Versatility. Is this material adaptable to a variety of instructional situations? Does it recognize the need for individual instruction--for group instruction? Is it relevant to the interests of students from different socioeconomic groups?

2. 3. 1 To what extent are various optional instructional strategies provided? (Instructional strategies are methods of teaching such as simulation, group instruction, individual programs, etc.)

- 3 Not applicable. 1 Unit can be taught by only one instructional strategy. 3 Adaptable to a narrow range of instructional strategies (2-4). 5 Adaptable to a broad range of instructional strategies (5 or more).

2. 3. 2 To what extent is a range of student activities provided that involves students in different kinds of learning experiences?

- 3 Not applicable. 1 Provides for a very limited variety of student activities; not easily adaptable. 3 Provides some variety of student activities and could easily be changed to increase adaptability. 5 Provides many varied learning activities for students.

2. 3. 3 To what extent are alternative activities for students with special needs (learning or physical handicaps) provided?

- 3 Not applicable. 1 No specific recognition of special needs; material difficult to adapt. 3 Some recognition of special needs (e. g., slow readers); easily adaptable. 5 Recognizes student differences and provides for activities uniquely suited to students with special needs.

2. 3. 4 To what extent is individual as well as group instruction provided?

- 3 Not applicable. 1 No individualized instruction and difficult to adapt. 3 Individualized instruction. 5 Individualized and group provisions.

2.3.5 To what extent does the material relate to the interests of the target age group?

- 3 Not applicable.
- 1 Low interest value.
- 3 High interest value in spots, but limited in scope.
- 5 High interest value throughout.

TOTAL RAW SCORE FOR TASK 2.3 (Transfer score to Objective Rating Box on page 14).

2.4 User Needs. Does the material provide adequate directions, background information, explanations of needed skills and/or training, etc., to assist the user in determining if he or she can easily utilize the material?

2.4.1 To what extent are user directions provided?

- 3 Not applicable.
- 1 None.
- 3 Inadequate with the content presented.
- 5 Adequate for use by an experienced person as well as a person familiar with its content.

2.4.2 To what extent is background information provided beyond the material itself?

- 3 Not applicable.
- 1 None.
- 3 Incomplete and requires extensive study and other resources.
- 5 Adequate for use without knowledge attained from prior experience or other resources.

2.4.3 To what extent are user strategies specified?

- 3 Not applicable.
- 1 None.
- 3 Inadequate to guide an inexperienced user with alternatives for consideration.
- 5 Sufficiently detailed to aid the user to assess alternative strategies.

2.4.4 To what extent are resource materials identified and referenced so the user can obtain them?

- 3 Not applicable.
- 1 None.
- 3 Primary resources identified but not referenced.
- 5 Resource materials are sufficiently documented to enable the user to acquire them.

2.4.5 To what extent are the specific skills required of the user identified and detailed?

- 3 Not applicable.
- 1 None.
- 3 Skills identified are incomplete and/or in insufficient detail.
- 5 Skills required of the user are identified and clearly detailed.

2.4.6 To what extent are directions for additional training provided?

- 3 Not applicable.
- 1 None, but additional training is necessary.
- 3 Inadequate for use without additional information and guidelines.
- 5 Adequate for most additional training required without additional information and guidelines.

2.4.7 To what extent are training materials identified and provided?

- 3 Not applicable.
- 1 None, but needed.
- 3 Materials are identified but not provided or are not adequate.
- 5 Materials needed are identified and those provided are suitable.

TOTAL RAW SCORE FOR TASK 2.4 (Transfer score to Objective Rating Box on page 14).

TASK 3.0 SPECIAL CONDITIONS FOR USE:

This task involves making a determination as to whether or not this material can be used in a typical school situation or if there are special requirements for its use which may impose new "costs" upon your district.

3.1 Personnel and Staffing
(Staffing Patterns)

- (Not Applicable)
- Team Teaching
- Differentiated Staffing (Describe)

- Low Pupil-Teacher Ratio
paraprofessional support
- Year Student Support
- Special Support Personnel (Describe)

- Specially Trained Instructor (Describe)

- Other _____

3.2 Scheduling and Organization

- (Not Applicable)
- Unique Grade Organization (Describe)

- Outside Normal Day/Year (Describe)

- Modular or Flexible Schedule
- Community Organization Based Classroom
- Industry or Business-Based Classroom
- Other _____

3.3 Equipment and Facilities

- (Not Applicable)
- Open Space, Multiple Group Instruction
Special Facilities (Describe)

- Special Equipment (Describe)

- Special Transportation (Describe)

- Other _____

3.4 Community Resources

- (Not Applicable)
- Volunteer Support, General or Specific
- Industry/Labor/Business Instructors
- Community Agency Support
- Home and Family Participation
- Work Experience Stations
- Other _____

TASK 4.0 CONTENT BIAS: Instructional material containing bias, either in illustration or copy, has to be questioned as to its usefulness. The following are suggested questions to use in evaluating the use of the materials in a local situation.

- 4.1 Material is free of racial bias.
 Yes No
- 4.2 Material is free of ethnic bias.
 Yes No
- 4.3 Material is free of religious bias.
 Yes No
- 4.4 Material is free of sex role stereotyping.
 Yes No
- 4.5 Material is free of job denigration.
 Yes No
- 4.6 Material accurately and objectively presents descriptions of life-styles and social conditions associated with the career categories involved.
 Yes No
- 4.7 Material contains role-models to which a member of a minority group can relate.
 Not Applicable Yes No
- 4.8 If the material contains visuals, the characters depicted represent a variety of racial groups.
 Not Applicable Yes No
- 4.9 Material includes characters with names indicative of a variety of ethnic groups.
 Not Applicable Yes No
- 4.10 With minor additions/revisions the material can include a positive reference to minority groups.
 Not Applicable Yes (How?) No (Why not?)
- 4.11 Any bias identified can be eliminated by recommended changes indicated in the assessor's statement, below.
 Not Applicable - no bias identified
 Yes
 No (reject material)
 EXIT 2
- Assessor's statement of recommended changes:

TASK 5.0 RESEARCH DATA PROVIDED: If there is research accompanying the material, the assessor is to identify the type of research, note the results, and evaluate its quality. If research material is not available, this task may be ignored without significantly altering the assessment process.

- 5.1 The item has documented evidence of investigation and evaluation:
 Yes No Unknown
 Source of Evidence: _____

- 5.2 Types of Students
 General, Homogeneously Grouped
 General, Heterogeneously Grouped
 Handicapped
 Non-Readers
 Non-English Speaking
 Gifted
 Other _____ (Specify)
- 5.3 Sample Size
 Less than 50
 50 to 99
 100 to 199
 More than 200 _____ (Specify)
- 5.4 Location of Target Student Group Tested
 Inner City
 City (population of less than 100,000 but not restricted to inner city)
 City (population of more than 100,000 but not restricted to inner city)
 Suburban
 Rural
 Other _____ (Specify)
- 5.5 What specific tests were used for pre-testing?

- 5.6 What specific tests were used for post-testing?

- 5.7 Were control groups used?

- 5.8 What specific types of statistical techniques were applied?

- 5.9 What were specific changes in post-test/pre-test results?

- 5.10 Additional information and/or clarification regarding research data:

- 5.11 Was the research adequate enough to base your selection of the material upon it? Why or why not?

TASK 6.0 SUMMARY EVALUATION: With the material carefully reviewed, it is necessary to make a final professional judgment.

In the following space the assessor is to give a summary description of the material which should include both identification information and the assessor's qualitative opinion.

Objective Rating

Maximum Points Possible	Task Number	Raw Score	Weight* Factor	Weighted Total Points
45	2.1		1	
25	2.2		1	
25	2.3		1	
35	2.4		1	

Total Possible Points
 Total Raw Score
 Evaluation Score (Raw Score = ___% of Total Possible Points)

Item is placed in:

- High-level priority: most useful
- Middle-level priority: it is useful if nothing of first-level priority is available
- Low-level priority: should only be used if nothing else is available

Please record this scoring on the front page.

*An explanation of alternative uses of the weighted scoring system can be found in the instructions for Task 6.0 in Part IV.

IV. USE OF THE ASSESSMENT INSTRUMENT

This section of the report consists of a detailed outline on use of the assessment instrument and defines those terms used in each "task" or step in the procedure.

TASK 1.0 - IDENTIFICATION

Task 1.0 identifies and classifies the material through descriptions of (a) packaging, (b) type of material, (c) grade, reading, and comprehension levels, (d) special learning needs, (e) subject areas, (f) instructional approaches, and (g) objectives. A detailed description of each of these elements is found in the following paragraphs.

1.2.0 Packaging

Single Piece One item, totally unrelated to any other piece of material, not part of a series or set, and can stand alone in appropriate use in a school program (e.g., supplementary reference material, achievement test; or curriculum guide).

Set Consisting of Independent Items. The items in the set are self-contained and may be used independently of each other. Though prepared as a set, they can usually be obtained separately and can definitely be used separately (e.g., a set of occupational manuals, a set of teaching units, a set of instructional modules). It is recommended that each item in a set be assessed separately.

Set Consisting of Related Items. The items in the set are not self-contained but are dependent on each other or interrelated to the extent that they cannot be used separately. Their value rests on the fact that together they make a worthwhile unit of curriculum materials. Such sets are usually prepared as one item or unit (e.g., a set of transparencies, a set of unit tests, a curriculum guide with accompanying administrative manuals, reports, testing instruments, etc.). Since the items are dependent upon each other they should be assessed together.

1.2.1 Type of Material

A. Printed

Instructional Unit. A guide which is broad in nature and directs instructional personnel to teaching techniques or assists them in

developing certain kinds of units. It requires much additional planning by the user.

Teacher's Guide. An aid to help teachers use or implement a particular curriculum material; it usually accompanies the material.

Curriculum Guide. Teacher-directed materials, informational in nature, which help the teacher to plan and carry out programs of study.

Instructional Module for Student. Instructional modules are units or parts of units of instruction developed in modular form for student use with or without the supervision of an instructor through each step. They may also be described as a LAP (Learning Activity Package) or a UNIPAC.

Student Workbook or Manual. Student-directed materials usually referenced to an item in an accompanying textbook. It can be a supplementary unit which a teacher would use for drill and practice exercises, or it may be a handbook of the "how-to" type or an informational piece for students.

Laboratory/Practice Manual. Provides exercises or experiences which give students an opportunity to apply or practice learning in a laboratory situation.

Textbook. A "standard" text for the grade and/or subject field involved.

Simulation Situation. A technique in which the instructor reproduces in the classroom, or elsewhere, "real-life" situations.

Evaluation Instrument. Achievement tests, aptitude tests, self-tests, or other materials which help teachers assess their students or their programs are considered evaluation instruments.

Administrative Material. Material directed at noninstructional personnel which provides assistance in managing and administering a school program or a phase thereof.

Bibliography or Directory. List of references, resource materials, or resource persons.

Supplementary Reference Material for Student. Materials which are self-contained, not part of a related set or text. They would be used in addition to other curriculum materials or made available to students for use at their own discretion.

1.2.2 Grade, Reading, and Comprehension Levels

Instructional material is developed for a specific grade or series of grades. In some cases material is developed for a student population of a particular grade range with a reading comprehension either superior or inferior to their grade level. The assessor is asked (a) to identify the grade range for which the material is developed and (b) to decide if the reading level matches the grade level--is it higher than the designated grade level, or lower.

1.2.4 Special Learning Needs

The following definitions of students with special learning needs are based on Handbook VI, Standard Terminology for Curriculum and Instruction in Local and State School Systems, U.S. Department of Health, Education, and Welfare, 1970, O.E. -23052.

Gifted and Talented. Pupils identified by professionally qualified personnel as being mentally gifted or talented in areas such as general academic work, fine arts, vocational and technical areas, athletics, human relationships, etc.

Mentally Retarded. Pupils identified by professionally qualified personnel as being mentally retarded, according to degree of retardation. This includes those individuals whose level of mental development is such that they have been identified as unable, without special help, to profit from the usual school program.

Physically Handicapped. Pupils identified by professionally qualified personnel as having one or more physical handicaps; this would include the blind, the hard of hearing, those with speech defects, and the crippled.

Emotionally Disturbed. Pupils identified by professionally qualified personnel as having an emotional handicap of such a nature and severity as to require one or more special services.

Culturally Deprived. Pupils who have deviations or deficiencies in cultural or environmental background that adversely affect their learning ability or general performance in school.

1.2.5 Activity Areas

A. Subject-Matter Area or Cocurricular Activity Toward Which Materials are Directed.

The following definitions of subject fields are based on Handbook VI, Standard Terminology for Curriculum and Instruction in Local and State School Systems, U.S. Department of Health, Education, and Welfare, 1970, O. E. -23052.

Agriculture. Agriculture is comprised of the group of related courses or units of subject matter which are organized for carrying on learning experiences concerned with preparation for or upgrading of occupations requiring knowledge and skills in agricultural subjects.

Art. Art is comprised of the organized body of subject matter or related courses involving primarily visual, tactile, kinesthetic expression.

Business. Business includes the body of related subject matter, or related courses, and planned learning experiences designed to develop in pupils the attitudes, knowledge, skills, and understanding concerned with business principles and practices having applications for personal use and/or activities.

Distributive Education. Distributive education includes various combinations of subject matter and learning experiences related to the performance of activities that direct the flow of goods and services, including their appropriate utilization from the producer to the consumer or user.

English Language Arts. English language arts is comprised of the body of related courses, organized for carrying on learning experiences concerned with developing (1) an understanding of the language system; (2) proficiency and control in the use of the English language; (3) appreciation of a variety of literary forms; (4) understanding and appreciation of various aspects of past and present cultures as expressed in literature; and (5) interests which will motivate lifelong learning.

Foreign Languages. The body of subject matter in this area is comprised of a variety of foreign languages, including English as a foreign language.

Health Occupations Education. Education for health occupations comprises the body of related subject matter, or the body of related courses, and planned experiences designed to impart knowledge and develop the understanding and skills required to support the health professions.

Health and Safety in Daily Living, Physical Education and Recreation.

The body of related subject matter and activities in health and safety in daily living, physical education, and recreation is organized for carrying on learning experiences concerned with developing (1) knowledge, attitudes, appreciation, and conduct essential to individual and group health; (2) awareness of, concern for, and knowledge, skills, and judgment necessary for practicing and promoting personal and public safety in the home, at school, on the job, and in traffic; and (3) physical and mental growth and fitness by means of activities designed to improve the muscles, motor skills, and attitudes and habits of conduct of individuals and groups.

Home Economics. Home economics comprises the group of related courses or units of instruction organized for purposes of enabling pupils to acquire knowledge and develop understanding, attitudes, and skills relevant to (1) personal, home, and family life, and (2) occupational preparation using the knowledge and skills of home economics.

Industrial Arts. Industrial arts is the body of related subject matter, or related courses, organized for the development of understanding about the technical, consumer, occupational, recreational, organizational, managerial, social, historical, and cultural aspects of industry and technology.

Mathematics. Mathematics comprises the body of related subject matter, or the body of related courses, organized for carrying on learning experiences concerned with the science of methods used for deducing from other quantities, known or supposed, the quantities sought.

Music. Music is the fine art that utilizes sounds in time in a meaningful and organized manner.

Natural Sciences. The natural sciences include the body of related subject matter, or the body of related courses, with the knowledge of the physical and biological world and of the processes of discovering and validating this knowledge.

Office Occupations. This body of subject matter, or combinations of courses and practical experience, is organized into programs of instruction to provide opportunities for pupils to prepare for and achieve career objectives in selected office occupations.

Social Sciences/Social Studies. The social sciences/social studies are comprised of interrelated subject matter organized to impart knowledge, develop skills, and identify goals concerning elements and institutions of human society in the disciplines of history, economics, political science, sociology, anthropology, psychology, geography, and philosophy.

Technical Education. Technical education is concerned with that body of knowledge organized in a planned sequence of classroom and laboratory experiences, usually at the postsecondary level, to prepare pupils for a cluster of job opportunities in a specialized field of technology.

Trade and Industrial Occupations. Trade and industrial occupations is the branch of vocational education which is concerned with preparing persons for initial employment or for upgrading or retraining workers in a wide range of trade and industrial occupations.

General Elementary and General Secondary Education. These terms usually refer to instruction which takes place in a self-contained class. Learning experiences are concerned with the knowledges, skills, appreciations, attitudes, and behavioral characteristics considered to be needed by all pupils in terms of the broad educational outcomes which should be achieved by all pupils to the limits of their capacities during the elementary and secondary school years or grades.

Differentiated Curriculum for Handicapped Pupils. The differentiated curriculum for handicapped pupils reflects an increasing awareness today of the individual needs of children. Many children with various types of handicaps cannot benefit from basic subject matter without special education. Handicapped children present learning difficulties and sensory and motor impairments which require careful study for successful adaptation of instruction. Teachers of exceptional children integrate professional information from psychology, education, and medicine for instructional and therapeutic services. Consequently, special education, as applied to each type of handicapped child, has developed some distinctive techniques and materials which distinguish it from regular classroom instruction.

Cocurricular Activities. Cocurricular activities (experiences) are comprised of the group of school-sponsored activities, under the guidance or supervision of qualified adults, designed to provide opportunities for pupils to participate in such experiences on an individual basis or in small or large groups--at school events, public events, or a combination of these, for purposes such as motivation, enjoyment, and improvement of skills.

Safety and Driver Education. The subject matter and related activities in safety and driver education are organized for carrying on learning experiences concerned with developing the ability to respond appropriately and efficiently (a) in the operation of a motor vehicle and (b) as a pedestrian in traffic.

Junior ROTC. Junior ROTC is comprised of a body of subject matter, or combinations of courses and practical experience, organized into programs of instruction to provide opportunities for pupils to prepare for and achieve career objectives in selected branches of the military service.

B. Other Content Areas

While local school systems may have their own definitions of the following terms, the definitions that follow are suggestive of the types of activities implied in a career education context.

Career Guidance/Counseling. Individual and/or group assistance aimed at helping persons become aware of, explore, make decisions about, prepare for, enter, and/or progress in various types of paid or unpaid work.

Career Information. Printed or nonprinted material describing the characteristics, benefits, required education and training, and life-style associated with one or more types of paid or unpaid work.

Community Involvement. The use of business, labor, industry, professional, community, government, home, and family persons and/or settings as resources in the planning and/or operation of educational programs.

Evaluation. The design and implementation of plans for the collection of data to study and improve the operation and effectiveness of educational activities.

Follow-Up. The act of collecting and analyzing information gained from prior participants in an educational activity for the purpose of assisting these persons in their present position and/or improving existing or future educational programs.

Management. The process of supervising the design and operation of planned activities including the processes of problem identification, needs assessment, priority setting, solution generation, activity planning, operational implementation, and evaluation.

Placement. The act of successfully assisting persons to enter paid jobs, further education, or other activities consistent with their previous education and work experience.

Staff Development. The training or retraining of professional and support personnel, as individuals and/or groups, to improve their knowledge and/or skills in career education.

Work Experience. Part-time or full-time observation or active participation in a paid or unpaid work setting for the purpose of becoming aware of, exploring, or preparing for future work opportunities.

1.2.6 Instructional Approaches

Instructional approaches are strategies or teaching skills that have been identified as being necessary to successfully teach an instructional unit. The 17 items listed are self-explanatory. Check as many as are necessary to describe the teaching techniques included, stressed, and/or provided for in the curriculum materials.

1.2.7 Objectives of Materials

The goals or objectives stated in the assessment instrument are suggested by the U.S. Office of Education. The user may, however, substitute an alternative set of goals. If the unit of instructional material fails to meet any of the established goals, it is suggested that the assessment stop and the material be exited (rejected).

The goals suggested by the U.S. Office of Education are stated in terms of student growth. The assessment instrument is based heavily on the utility of the materials in an educational system and the extent to which they are directed to a variety of instructional objectives, issues, and needs. It is assumed that there is a direct relationship between teaching behaviors and learning outcomes. Making available to teachers a range of effective and useful career education materials should help to bring about viable learning in their classrooms.

TASK 2.0 - QUALITY

After identifying and classifying the material and determining that it meets career education goals, the assessor goes on to evaluate the quality of the material. A rating system has been designed to lend a measure of objectivity to what essentially is a subjective analysis.

There are four possible answers to each question in Task 2.0; each has been given a rating. If the assessor feels that the material does not meet the objectives, he/she checks the appropriate box, which carries a minimum score of 1 point. If the assessor thinks the material meets the requirement but could stand improvement, he/she checks the box carrying the average score of 3 points. If the assessor wishes to indicate that the material is outstanding on the particular point,

he/she checks the box carrying the maximum 5-point rating. There will be instances, however, where a question will not apply to the material being assessed. In order to accommodate this situation without penalizing the material, the assessor is to check the "Not applicable" response, which carries a score of 3 points. At the end of each subtask the assessor is to add the scores and transfer the totals to the appropriate space in the Objective Rating box found in Task 6.0 (Summary Evaluation).

The following is an explanation of the subtasks under Task 2.0.

2.1 Adequacy and Consistency

Effective use of materials depends partially on the adequacy and consistency of their design. Material design should be based on sound theories, proven research, successful applicable techniques, and the best judgment of authorities in the field. Materials should be designed so that the users can identify precisely the nature and scope of the content, the objectives to be attained, and the methodologies to be applied. Users should be assured that these three elements are compatible and consistent with each other as well as the stated goals of career education.

2.2 Evaluation Procedures

A sound evaluation process should provide opportunities for the users of materials to assess the strengths and weaknesses of their own classroom situations and to plan appropriate actions based on findings. To accomplish this the basis for the evaluation must be accurate and complete. It must include:

- identification of objectives to be attained over a prescribed period of time;
- criteria to be used in making the evaluation;
- measurement descriptions that provide a qualitative and/or quantitative determination of how well the criteria have been met;
- standards to determine whether the objectives to be attained are realistic and sound; and/or
- whether the means for making the evaluation should be changed.

2.3 Versatility

In evaluating materials a major concern is the extent to which they are adaptable to teaching styles and student learning styles. Without specifically

defining either set of characteristics, it is possible to examine materials with a concern for the flexibility and adaptability of the materials themselves. Indicators are whether or not the unit includes provisions for students with special needs, and optional teaching and/or instructional strategies (e.g., simulation, group instruction, individual programs). In general, a unit of material will be given a high rating if it (a) enables teachers to fit it into their own teaching styles and patterns of instruction and (b) meets the varied needs of students.

2.4 User Needs

Successful use of material depends, in part, on the adequacy of its content and the background and level of skill of the user. Requirements for the successful use of materials should be clearly set forth since many users may not be familiar with current career education principles and goals. The primary judgments to be made are the degree and/or adequacy of materials to stand alone. Ideally, those responsible for assignment of persons who will use the material should match the competence of the users with the degree to which support components are provided.

TASK 3.0 - SPECIAL CONDITIONS FOR USE

In this task the assessor identifies the special conditions for use of the instructional material relating to staffing, facilities, equipment, and so forth. The results of this task will be invaluable to the career education practitioners when they must determine if it is possible to utilize the material in their classrooms without imposing "costs" which the local school district would be unable to meet.

TASK 4.0 - CONTENT BIAS

Material which stereotypes sex roles, shows bias towards racial, ethnic, or religious groups, and/or imposes artificial hierarchies of social values on various job or occupational categories (job denigration), should be avoided. At the same time, it is important that accurate and objective descriptions of life-styles and social conditions associated with specific occupational categories be a part of a career education instructional unit. Where the evaluator checks a statement indicating the presence of bias in the unit, a recommendation for modification is to be included in the statement--providing the revisions are determined by the assessor to be comparatively minor.

TASK 5.0 - RESEARCH DATA PROVIDED

Material which has demonstrated its effectiveness in previous classroom situations will be of great interest to potential users. This task assists the assessor in analyzing research accompanying the material to determine the similarities in user situations, the type of research performed, and the success or failure of the material in earlier usage.

TASK 6.0 - SUMMARY EVALUATION

In this task the assessor summarizes the evaluation of the instructional material. The first step in this summary is to score the quantitative analysis found in Task 2.0. The assessor totals the raw scores and compares them with the total possible score and concludes with an evaluation rating expressed in a percent. This is particularly valuable when a number of units of material are being assessed. An objective comparison of the units can be readily made if the quantitative scoring process has been carefully completed.

The assessor then checks off whether the material is considered in a high, middle, or low priority for use. Different point ranges may be used to make this category placement more objective (e.g., 100-130 = high priority; 70-99 = middle priority; below 70 = low priority).

If the assessor feels that certain subtasks of Task 2.0 are more important than others, he/she may weight the scoring system accordingly. In the assessment sponsored by the U.S. Office of Education and conducted by PMM&Co. in 1974, the education professionals considered Task 2.1- Adequacy and Consistency and Task 2.2- Evaluation Procedures to be of such importance that they were each given a weight factor of 2. This meant that the assessor multiplied the raw scores for Task 2.1 and Task 2.2 by 2 to reach the weighted scores. This changes the Maximum Points Possible for Task 2.1 from 45 to 90; for Task 2.2 from 25 to 50; and for Total Possible Points from 130 to 200.

In the final step the assessor is to write a brief summary of his/her evaluation of the material, giving an idea of the identification, classification, and quality of the material. The purpose of a written summary is to share one practitioner's evaluation with others in the field. This final task can easily be transmitted to an index card to be stored in a central place within a school district or State department of education to be utilized by other educators seeking quality career education material for their particular classroom situations.

APPENDIX A

SOURCES OF CAREER EDUCATION INSTRUCTIONAL MATERIAL

Information is available from a number of sources on current instructional materials as well as on new developments in the career education field. This appendix briefly describes the most accessible sources of information available to the career education practitioner.

STATE COORDINATORS FOR CAREER EDUCATION

Each of the 50 States and six territories has a State Coordinator for Career Education who is appointed by the chief State school officer. Since the coordinators are responsible for helping the local practitioners locate career education materials, they hold regular meetings to familiarize themselves with developments in other parts of the country. A practitioner may locate his/her State Career Education Coordinator by contacting the State educational agency.

RESEARCH COORDINATING UNITS

Each state and territory has a Research Coordinating Unit (RCU) that is responsible for coordinating vocational education research. RCUs are responsible for career education programs sponsored by vocational education funds. RCU directors are also appointed by the chief State school officer and may be located by contacting the State educational agency. The RCU directors have regular meetings to exchange information and coordinate their activities.

CURRICULUM COORDINATION CENTERS

Six regional curriculum laboratories serve as Curriculum Coordination Centers for vocational and technical education. The centers coordinate and sponsor curriculum development that is primarily concerned with occupational preparation; however, they also work with career awareness and career exploration materials. Each state has a curriculum liaison officer responsible for coordinating developments within the State for the regional curriculum laboratory. The curriculum liaison officers within each region meet quarterly with the regional laboratory representatives. In addition, the six regional curriculum laboratories regularly communicate with each other and schedule meetings, thus providing a

national network for curriculum coordination. A practitioner seeking curriculum material information may contact the State education agency which will put her/him in touch with the State curriculum liaison officer who will conduct a search on the practitioner's behalf. The names and addresses of the directors of the six regional Curriculum Coordination Centers are listed below:

Directors of the
Curriculum Coordination Centers

States Served

Dr. James Becket, Director
Western Curriculum Coordination Center
Vocational Education Section
Department of Education
721 Capitol Mall
Sacramento, California 95814

American Samoa, Arizona,
California, Guam, Hawaii,
Nevada, Trust Territory of
Pacific Islands

Mr. William E. Reynolds, Director
East Central Curriculum Coordination Center
Professional and Curriculum Development Unit
Division of Vocational-Technical Education
1035 Outer Park Drive
Springfield, Illinois 62706

Delaware, District of
Columbia, Indiana, Illinois,
Maryland, Michigan, Minnesota,
Ohio, Pennsylvania, Virginia,
West Virginia, Wisconsin

Dr. James E. Wall, Director
Southeast Curriculum Coordination Center
Mississippi State University
Research and Curriculum Unit
Drawer JW
Mississippi State, Mississippi 39762

Alabama, Florida,
Georgia, Kentucky,
Mississippi, North Carolina,
South Carolina, Tennessee

Dr. Joseph Kelly, Director
Northeast Curriculum Coordination Center
Bureau of Occupational Research
Division of Vocational Education
225 West State Street
Trenton, New Jersey 98625

Connecticut, Maine, Rhode
Island, Massachusetts, New
Hampshire, New Jersey, New
York, Puerto Rico, Vermont,
Virgin Islands

Mr. Ron Meek, Director
Midwest Curriculum Coordination Center
State Department of Vocational and
Technical Education
1515 West 6th Avenue
Stillwater, Oklahoma 74074

Arkansas, Iowa, Kansas
Louisiana, Missouri,
Nebraska, New Mexico,
Oklahoma, Texas

Mr. James L. Blue, Director
Northwestern Curriculum Coordination Center
Washington State Coordination Council
for Occupational Education
222 Airdustrial Park
Box 17
Olympia, Washington 98504

Alaska, Colorado, Idaho,
Montana, North Dakota,
Oregon, South Dakota,
Utah, Washington, Wyoming

MONTHLY JOURNAL: RESOURCES IN EDUCATION

The monthly abstract journal Resources in Education announces recently completed research studies, evaluation reports, and instructional materials in the field of education. The journal not only announces such materials but also provides an abstract of each item. Items related to career education can be located in the subject index under the heading of "career education." An "ED" number is provided for each abstract; this "ED" number can be used to order the entire document, either on microfiche or hard copy, from the ERIC Document Reproduction Service. A subscription to Resources in Education can be obtained for \$42.70 per year from the U.S. Government Printing Office, Washington, D. C. 20402. Current issues of Resources in Education, as well as annual indexes of back issues, can be found in libraries in many universities, State departments of education, and in some local school districts.

BI-MONTHLY JOURNAL: ABSTRACTS OF INSTRUCTIONAL AND RESEARCH MATERIALS

The bi-monthly journal Abstracts of Instructional and Research Materials in Vocational and Technical Education (AIM/ARM) announces recently completed research studies, evaluation reports, exemplary project reports, and instructional materials developed with funds appropriated under the Vocational Education Amendments of 1968 (Public Law 90-576). Included in the journal are announcements of documents emanating from the career education pilot projects supported under Part C and Part D of the Vocational Education Amendments of 1968. The AIM/ARM journal not only announces the availability of documents, but it also provides an abstract of each item. Items related to career education can be located in the subject index under the heading of "career-education." A "VT" number is provided for each abstract; this "VT" number can be used to secure the entire document on microfiche from a VT-ERIC microfiche set, available from the ERIC Document Reproduction Service. A subscription to AIM/ARM can be obtained for \$34.00 per year from the Center for Vocational Education, Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210. Also, current issues of AIM/ARM, as well as annual indexes of back issues, are available in the vocational divisions of most State departments of education, universities, and large city school systems.

BIBLIOGRAPHIES AND RESOURCE MATERIAL LISTINGS

During the past four years, a number of bibliographies and resource material listings have been prepared in the subject area of career education. Several of these basic bibliographic documents in career education have been entered into the ERIC system and are now available from the ERIC Document Reproduction Service.

Listed below are some of the career education bibliographies and resource material listings which are currently available in the ERIC system. In many States, free access to ERIC collections is available through the State department of education and/or university libraries. In such States, an individual needs only to cite the "ED" number of the document desired and it can be retrieved from the ERIC collection maintained by the State or by a university.

Individuals who do not have ready access to a State-maintained ERIC collection can place direct orders for ERIC Documents from the national ERIC Document Reproduction Service. A microfiche reproduction of an ERIC Document costs 75 cents (plus postage). A full-size hard-copy reproduction of the document costs \$4.20 per 100 pages (plus postage). An order should specify the "ED" number of the document desired, should state whether a microfiche or hard-copy reproduction is wanted, and should include a check, money order, or official purchase order. Orders should be addressed to: ERIC Document Reproduction Service, P.O. Box 190, Arlington, Virginia 22210.

1. Bailey, Larry J. Facilitating Career Development: An Annotated Bibliography, I. Springfield, Illinois: Illinois State Board of Vocational Education and Rehabilitation; July 1970. (ED-042-217)
2. Bailey, Larry J. Facilitating Career Development: An Annotated Bibliography, II. Carbondale, Illinois: Southern Illinois University; February 1974. (ED-092-674)
3. Begle, Elsie P. Career Education: An Annotated Bibliography for Teachers and Curriculum Developers. Palo Alto, California: American Institutes for Research; January 1973. (ED-073-297)
4. Division of Occupational Education Instruction. Career Education Resource Materials. Albany, New York: New York State Education Department; September 1973. (ED-095-282)
5. Herr, Edwin L. Review and Synthesis of Foundations for Career Education. Columbus, Ohio: Ohio State University; March 1972. (ED-059-402)

6. High, Sidney C. and Linda Hall. Bibliography on Career Education. Washington, D. C.: U.S. Office of Education; May 1973. (ED-079-554)
7. Indiana Career Resource Center. Resources for Career Development. South Bend, Indiana: Indiana University; 1972. (ED-075-637)
8. Lakeshore Technical Institute. K-14 Career Education Multi-Media Catalogue. Sheboygan, Wisconsin: Sheboygan Public Schools; 1972. (ED-075-639)
9. Moore, Allen B. Abstracts of Instructional Materials for Career Education. Columbus, Ohio: Ohio State University; 1972. (ED-068-627)
10. Moore, Allen B. Abstracts of Instructional Materials for Career Education (Supplement). Columbus, Ohio: Ohio State University; 1973. (ED-075-576)
11. Palo Alto Educational Systems, Inc. A First Step Toward Career Education: A Project to Identify, Compile, Catalogue, Analyze, and Assess Past and Present Career Education Efforts (Volume I, Volume II, Appendices). January 1972. (ED-060-224)
12. Peat, Marwick, Mitchell and Co. Instructional Materials for Career Education: A Search and Assessment for the Office of Education. February 1974. (ED-090-441)
13. Peat, Marwick, Mitchell and Co. Search and Assessment of Commercial Career Education Materials. 1972. (ED-075-657)
14. Peterson, Marla. Enrichment of Teacher and Counselor Competencies in Career Education, K-6: An Annotated Bibliography. Charleston, Illinois: Eastern Illinois University; October 1972. (ED-073-287)
15. Reynolds, William E. A National Annotated Bibliography of Curriculum Materials in Vocational and Career Education. Springfield, Illinois: Illinois State Board of Vocational Education and Rehabilitation; 1974. (ED-090-442)

APPENDIX B

CAREER EDUCATION INSTRUCTIONAL MATERIALS IDENTIFIED THROUGH A SEARCH AND ASSESSMENT IN THE PUBLIC DOMAIN

In the Fall of 1973, the firm of Peat, Marwick, Mitchell and Company, working under a contract from the U.S. Office of Education conducted a nationwide search to locate and identify non-copyrighted career education instructional materials which had been developed by local school districts and State departments of education. A full account of this effort can be found in the final report of the project, which is available in the ERIC System under the accession number ED-090-441. In the course of this effort, Peat, Marwick, Mitchell and Company located and identified more than 100 instructional units which seemed to be well-developed and appeared to be potentially useful for career education programs. These units are listed below, indexed by State.

ALASKA

Exploring the Working World, Dayton Benjamin et al., 1973. North Star Borough School District, P.O. Box 1250, Fairbanks, Alaska 99707.

ARIZONA

Accounting Clerk Guide, Part I: Instructor, Learner, Test, and Exercise and Worksheet Packets, Foster, Irwin, and Olsen. Center for Career Development, Mesa Public Schools, 161 East First Street, Mesa, Arizona 85201. Also available from Arizona Career Education Clearinghouse, Phoenix, Arizona.

Accounting Clerk Guide, Part II: Instructor, Learner, Test, and Exercise and Worksheet Packets, Foster, Irwin, and Olsen. Center for Career Development, Mesa Public Schools, 161 East First Street, Mesa, Arizona 85201. Also available from Arizona Career Education Clearinghouse, Phoenix, Arizona.

Accounting Clerk Guide, Part III: Instructor, Learner, Test, and Exercise and Worksheet Packets, Foster, Irwin, and Olsen. Center for Career Development, Mesa Public Schools, 161 East First Street, Mesa, Arizona 85201. Also available from Arizona Career Education Clearinghouse, Phoenix, Arizona.

Careers Calling, W. Julius Johnson. State Department of Education
Arizona Career Education Clearinghouse, Phoenix, Arizona.

Curriculum Guide and Course Outline for Job Exploration and Machine Skills (JEMS), George F. Dunn et al., 1973. Phoenix Union High School System, Phoenix, Arizona.

The Future Me, Debra Vild, 1973. State Department of Education
Arizona Career Education Clearinghouse, Phoenix, Arizona.

Model Cities Exemplary Vocational Education Program: Curriculum Guide, K-6, John T. Michel et al., Tucson Schools, Tucson, Arizona.

Readin', Writin' and Relevance, Scott and Washburn, 1972. Center for Career Development, Mesa Public Schools, 161 East First Street, Mesa, Arizona 85201. Also available from Arizona Career Education Clearinghouse, Phoenix, Arizona.

Reading, Writing, and Numbering, Sandra McCormick, 1973. State Department of Education, Arizona Career Education Clearinghouse, Phoenix, Arizona.

Swimming Pool Serviceman, Instructor, Learner, Test, and Work and Exercise Packets, Lindersmith, Kunde, and Campbell, 1973. Center for Career Development, Mesa Public Schools, 161 East First Street, Mesa, Arizona 85201. Also available from Arizona Career Education Clearinghouse, Phoenix, Arizona.

Waiter/Waitress: Instructor, Learner, Test and Work and Exercise Packets, 1973. Center for Career Development, Mesa Public Schools, 161 East First Street, Mesa, Arizona 85201. Also available from Arizona Career Education Clearinghouse, Phoenix, Arizona.

What, When, and Why, Rasmussen, McCormick, and Thacker. Center for Career Development, Mesa Public Schools, 161 East First Street, Mesa, Arizona 85201. Also available from Arizona Career Education Clearinghouse, Phoenix, Arizona.

ARKANSAS

Arkansas Guidebook for Vocational Orientation, Oswald Weese, et al., 1971. Arkansas State Department of Education, Little Rock, Arkansas. (VT014891)*

*VT numbers refer to the indexing number in the AIM/ARM System (Abstracts of Instructional Materials/Abstracts of Research Materials in Vocational Education). ED numbers refer to the ERIC system.

Investigating Career Opportunities: Curriculum Guide, 1973. Little Rock Public Schools, Little Rock, Arkansas. Also available from Arkansas State Department of Education, Division of Vocational Technical, and Adult Education, Little Rock, Arkansas. (VT018880; ED072308)

CALIFORNIA

Introduction to Allied Health Careers, Doris Rosenthal and Phyllis Agran, 1972. University of California, Division of Vocational Education, Los Angeles, California.

Public Services Occupations, Patrick J. Weagraff, 1972-73. State Department of Education, Vocational Education Section, Program Planning Unit, Sacramento, California.

DELAWARE

Strategies for Teaching English in Career Education, Final Report, Gary G. Haupt, 1971. State Department of Education, Dover, Delaware. (ED059404)

DISTRICT OF COLUMBIA

Career Development Curriculum Guides, 7th and 8th Grades, Metropolitan Educational Council for Staff Development and the Career Development Exemplary Staff, 1972. District of Columbia Public Schools, 415 12th Street, N. W., Washington, D. C. 20004.

FLORIDA

Auto Mechanics -- Auto Mechanic Service Specialist, Virgil Hoover. Orange County Career Development Program, 410 Woods Avenue, Orlando, Florida 32805.

Business Education -- General Office Clerk, Joyce Chavez et al., Orange County Career Development Program, 410 Woods Avenue, Orlando, Florida 32805.

Child Care, Judith Coombs et al., July 1973. Orange County Career Development Program, 410 Woods Avenue, Orlando, Florida 32805.

Food Service, Dorothy Gregory et al., Orange County Career Development Program, 410 Woods Avenue, Orlando, Florida 32805.

Horticulture, James Sims et al. Orange County Career Development Program, 410 Woods Avenue, Orlando, Florida 32805.

Introduction to Masonry, William Semmens et al., July 1973. Orange County Career Development Program, 410 Woods Avenue, Orlando, Florida 32805.

Introduction to Power Mechanics, Tom Dumencich et al., July 1973. Orange County Career Development Program, 410 Woods Avenue, Orlando, Florida 32805.

Mason's Assistant, William Semmens, July 1973. Orange County Career Development Program, 410 Woods Avenue, Orlando, Florida 32805

Work Experience Program - 8769 (You and Your Occupation), Course Outline, 1971. Dade County Public Schools, Miami, Florida. (ED070014)

GEORGIA

Building Construction: Careers in Construction, John Hull, 1972. Cobb County Occupational and Career Development Program, P.O. Drawer R, Marietta, Georgia 30061.

Commercial Airlines and Airports: Careers in Transportation, D. Franklin Roberts, 1972. Cobb County Occupational and Career Development Program, Georgia.

The Final Report on the Evaluation of a Developmental Program of Occupational Education -- Project No. O-361-0063, D. Katz and R. Morgan. North Carolina State University, Raleigh, North Carolina.

Music: Careers in Fine Arts and Humanities, 1972, Cobb County Occupational and Career Development Program, P.O. Drawer R, Marietta, Georgia 30061.

The Newspaper: Careers in Communications and Media, 1972. Cobb County Occupational and Career Development Program, P.O. Drawer R, Marietta, Georgia 30061.

Photography: Careers in Communications and Media, Jane Durden, 1972. Cobb County Occupational and Career Development Program, P.O. Drawer R, Marietta, Georgia 30061.

Place Packages and Teacher Guides for Agricultural Occupations, William McGraw, 1972. University of Georgia, Athens, Georgia.

Place Packages and Teacher Guides for the Child Care Program, Wanda Grogan et al., 1972. University of Georgia, Athens, Georgia.

Place Packages and Teacher Guides for Construction, 1972. University of Georgia, Athens, Georgia.

Place Packages and Teacher Guides for Data Processing Program, Wanda Aldridge, 1972. University of Georgia, Athens, Georgia.

Place Packages and Teacher Guides for Electro Mechanics Program, Ben Nash, 1972. University of Georgia, Athens, Georgia.

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