The report briefly describes a project to develop career orientation materials for special needs students--disadvantaged and educable mentally handicapped (EMH)--at the junior and senior high school levels in North Dakota. The activities involved in selecting the career areas are briefly discussed. By polling various students in different parts of the State, 10 vocational areas were selected: (1) Service Station Attendant, (2) Janitorial Services, (3) Food Service Worker, (4) Laundry Worker, (5) Farm Worker, (6) Auto Body Repairman, (7) Nurse's Aide or Orderly, (8) Food Store Worker, (9) Construction Worker, and (10) City Worker. The report also includes a brief description of the format of the materials. Developed in booklets and accompanied by 35mm slides and cassette tape, the materials are written in a language that most EMH students can read; the type is large and the sentences short. Appended to the report is the form used to identify educational needs of the special students. Also appended is a package and cost description for each of the developed units. (NJ)
A Project to Develop Career Awareness Materials for Special Needs Students

NORTH DAKOTA RESEARCH COORDINATING UNIT
STATE BOARD FOR VOCATIONAL EDUCATION
STATE OFFICE BUILDING BISMARCK, NORTH DAKOTA 58505

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Final Report

A PROJECT TO DEVELOP
CAREER AWARENESS MATERIALS
FOR SPECIAL NEEDS STUDENTS
(Project No. 19)

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Dickinson Area Vocational High School
Dickinson, North Dakota

In Cooperation With
North Dakota State Board
For Vocational Education
Bismarck, North Dakota

December, 1975
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ABSTRACT

In evaluating the Career Education Classes required of all sophomores at Dickinson Area Vocational High School, it became evident that the needs of disadvantaged and handicapped students were not being met. A different approach and in many cases completely different materials were needed to enable these students to adequately explore careers for themselves. Our major objective was to produce career orientation materials that were suitable for use by this target group.

The ten career areas were selected after polling Special Education departments in four schools in North Dakota. The results of this poll revealed the ten areas where there was an obvious need for career materials. Those selected were: Service Station Attendant, Janitorial Services, Food Service Worker, Laundry Worker, Farm Worker, Auto Body Repairman, Nurses' Aide or Orderly, Food Store Worker, Construction Worker and City Worker.

In developing the booklets, special attention was given to the reading level of the target group. Large type was used for the benefit of the visually impaired student. Art work and rebuses were used to increase student comprehension. Accompanying each booklet is a set of 35mm slides depicting the career area. The cassette tapes are a verbatim reproduction of the booklet text.

As a result of the piloting of these materials at Dickinson Area Vocational High School, it has become apparent that they are suitable for use in Junior and Senior High School Special Education Departments and career programs at all levels.

These materials are available from:
Dickinson Public School District
Instructional Media Center
Post Office Box 1057
444 West 4th Street
Dickinson, ND 58601
I. Purpose and Objectives of the Project:

The core to the "Education for Living" concept at Dickinson Area Vocational High School is the nine weeks Careers program given to all sophomores. The curriculum materials used in the Careers program were developed with the State Board for Vocational Education through its Exemplary Part D funds.

While conducting the above program, a particular problem became evident. Special Needs students (Disadvantaged and EMH students) going through the regular Careers program could not adequately formulate an appropriate career plan. The Career materials used by average or above average students are not suited to this target group.

The major objective was to produce Career materials of a level at which this group of students can identify and understand, so this target group can have as equal an opportunity at career planning as other students in the school system.

II. Methods and Procedures:

The first step to be resolved was the selection of the career areas to be included in the Project. It was decided that the most appropriate method was to poll various students in different areas in the state to see which vocational areas were indicated most frequently. Another local project, "Project AVCEM" had sent out a Seven Point Evaluation Plan (see Appendix, Exhibit "A") to Special Education departments in four schools in the state. The schools polled were Minot, Devils Lake, Lignite and Dickinson. The AVCEM project (Adaptive Vocations and Career Education through Media) is a Title III project which is in the process of being developed at the Instructional Media Center in Dickinson, North Dakota. AVCEM is developing training packages for Trainable and Educable Mentally Handicapped children having educability in the social area and who can learn vocational and career skills with some limitations. The project committee selected ten areas from the sixteen listed in the original proposal submitted by Theodore F. Renner, Vocational Director, Dickinson Area Vocational High School.
Career Areas Selected

1. Service Station Attendant
2. Janitorial Services
3. Food Service Worker
4. Laundry Worker
5. Farm Worker
6. Auto Body Repairman
7. Nurses' Aid or Orderly
8. Food Store Worker
9. Construction Worker—Building Trades
10. City Worker

These areas were chosen to fit jobs that can be found in the state of North Dakota. These booklets and materials are for the purpose of career awareness and are not meant to be instructional materials. (A complete description of each package is outlined in the Appendix, Exhibit "B"). This material will tie in with the Project AVCEM, which is developing self-instructional packages for the actual training in many of the above areas.

This training will include career exploration utilizing the Career Awareness materials. After the student has selected a career area he could move into training, utilizing the self-instructional packages produced through the AVCEM project. This program will culminate in actual training by means of on-the-job training through the use of work experience in the student's selected area. (See Flow Chart in Appendix, Exhibit "C").

The second step to be resolved was the format for presentation of the materials. Initially, we were planning to use a video-tape accompanied by booklets. Through further investigation it was decided that video-tapes would not be practical because of the excess expense and the limited availability of the proper equipment in other schools in the state to utilize the video-tapes. It was decided to use booklets accompanied by 35mm slides and a cassette tape. Thirty five mm slides were utilized so the students could use the sets individually and to allow for ease of updating if any of the slides need replacement. The materials are set up so the booklets can be used alone or with the slides and cassette tapes. The tapes follow the written material in the booklets so the very poor or non-reader can listen to the information that is written in the booklets. The last five pages of each booklet contain specific career information on the career area, such as: physical requirements, training needed, and salary for that area. These pages are not included on the cassette tape, due to the fact that any changes in the wages or job requirements would result in the necessity to make a new cassette tape.
Finally, it was decided that the booklets should be written in a language that most EMH students should be able to read. It was also decided to use large type so the visually impaired students would have less difficulty in reading the materials. The sentences were kept short to make reading comprehension easier. The amount of writing on each page is kept at a minimum so the booklets do not overwhelm the student. The booklets have graphics depicting the activities described in the corresponding written material. The booklets are designed to have a maximum number of graphics with a minimum amount of written language. The selection of the 35mm slides to be included was made after the booklets were written and graphics were drawn. The slides correspond with the graphics and in many cases more than one slide will show activities depicted in the graphics. The booklets also contain rebuses superimposed on difficult words to make reading easier for the students.

Conclusions and Recommendations

The material produced has been piloted in Dickinson High School EMH classes. The students read the materials to test the language used and were tested to make sure they comprehended the main points about the career area. As a result of this pilot, it is felt that the materials are suitable for utilization in Junior and Senior High School EMH and TMH programs and High School Career programs. Because of the language, the material could also be used in Elementary and Junior High School Career units.

The project was originally designed to develop materials in ten areas. It is suggested that similar materials could be developed in a wider variety of career areas. It may be possible to expand this concept to include some of the emerging occupations resulting from industrial development in western North Dakota.
Exhibit "A"

SEVEN POINT EVALUATION PLAN

1. Identify purpose of the school.
   a. 
   b. 
   c. 

2. Identify Learner's needs.
   a. Vocational
   b. Pre-Vocational

VOCATIONAL CHOICE
   a. 
   b. 

3. Identify individual learning characteristics (retarded student).
   a. Sensory activity
   b. Learning level
   c. Learning speed
   d. Entry level in–
      1. Reading
      2. Writing
      3. Understanding
      4. Calculating (simple math)

4. Learning tendencies.
   a. To make assumptions based on logic and intuition
   b. Need all steps laid out

5. Reinforcement style.
   a. Positive
   b. Negative

6. Reassurance.
   a. Immediate feedback
   b. Reward

7. Level of tolerance for learning.
   a. Approximate time for one sitting without fatigue
   b. Motivational characteristics
CAREER AWARENESS MATERIALS FOR SPECIAL NEEDS STUDENTS

I. A Career as a Service Station Attendant

A. Areas included in program

1. Work at the service island
2. Cash and credit
3. Station maintenance
4. Service work
   a. Tire repair
   b. Oil change—grease job
   c. Car wash
   d. Tune-up
   e. Minor replacement and repair

B. Number of slides—75
C. Length of tape—11¼ min.
D. Cost of package

   1. Booklet alone — $2.00
   2. Cassette tape — $2.00
   3. Slides — $30.00
      $34.00

II. A Career as a City Worker

A. Areas included in program

1. Trash removal
2. Sewer and water
3. Street maintenance
4. Park and recreation

B. Number of slides—33
C. Length of tape—7¼ min.
D. Cost of package

   1. Booklet alone — $2.00
   2. Cassette tape — $2.00
   3. Slides — $13.20
      $17.20
III. A Career as an Autobody Repairman

A. Areas included in program

1. Estimating
2. Removing dents
3. Filler and replacement
4. Sanding and smooth surface
5. Painting

B. Number of Slides—23
C. Length of tape—7 min.
D. Cost of package

1. Booklet alone — $ 2.00
2. Cassette tape — $ 2.00
3. Slides — $ 9.20
$13.20

IV. A Career as a Laundry Worker

A. Areas included in program

1. Pick-up and delivery
2. Marker
3. Sorter
4. Washing machine operator
5. Extractor operator
6. Drying tumbler operator
7. Shaker
8. Feeders
9. Flat work fold operator
10. Finish operator
11. Bundle wrapper

B. Number of slides—26
C. Length of tape—9 min.
D. Cost of package

1. Booklet alone — $ 2.00
2. Cassette tape — $ 2.00
3. Slides — $10.40
$14.40
V. A Career as a Nurses’ Aide or Orderly

A. Areas included in program

1. Bedmaking
2. Patient care
3. Food trays
4. Cleaning rooms
5. Taking vital signs

B. Number of slides—28
C. Length of tape—7 min.
D. Cost of package

1. Booklet alone — $2.00
2. Cassette tape — $2.00
3. Slides — $11.20
   $15.20

VI. A Career in Janitorial Services

A. Areas included in program

1. Cleaning hotel and motel
2. Cleaning a hospital or nursing home
3. Schools
4. Industrial building
5. Commercial cleaning service
6. Domestic

B. Number of slides—46
C. Length of tape—12 min.
D. Cost of Package

1. Booklet alone — $2.00
2. Cassette tape — $2.00
3. Slides — $18.40
   $22.40
VII. A Career as a Food Store Worker

A. Areas included in program

1. Stock boy
2. Produce clerk
3. Stock clerk
4. Carry-out
5. Checker

B. Number of slides—33
C. Length of tape—7 min.
D. Cost of Package

1. Booklet alone — $ 2.00
2. Cassette tape — $ 2.00
3. Slides — $13.20
$17.20

VIII. A Career as a Food Service Worker

A. Areas included in package

1. Institutional
   a. Schools
   b. Hospital
   c. Nursing home

2. Commercial
   a. Fast food
   b. Restaurant
   c. Drive-in

3. Jobs surveyed
   a. Kitchen worker
   b. Dishwasher
   c. Busboy
   d. Waiter—waitress
   e. Cashier
   f. Cook

   (1) Short order
   (2) Fry cook
VIII. Continued

9. Bartender

B. Number of slides—35
C. Length of tape—10½ min.
D. Cost of Package

1. Booklet alone — $ 2.00
2. Cassette tape — $ 2.00
3. Slides — $14.00
   — $18.00

IX. A Career as a Farm Worker

A. Areas included in program

1. Dairy Farm Worker
2. Grain Farm Worker
3. Cattle Ranch Worker

B. Number of slides—34
C. Length of tape—7 min.
D. Cost of Package

1. Booklet alone — $ 2.00
2. Cassette tape — $ 2.00
3. Slides — $13.60
   — $17.60

X. A Career as a Construction Worker—Building Trades

A. Areas included in program

1. Structure Worker
   a. Framing
   b. Excavating
   c. Cement worker
   d. Carpenter’s helper
   e. Bricklayers
   f. Iron workers
X. Continued

2. Finish Worker
   a. Plasterer
   b. Painter
   c. Paper hanger
   d. Glaziers
   e. Roofer
   f. Insulation worker

3. Mechanical worker
   a. Plumber
   b. Electrician

B. Number of slides—28
C. Length of tape—7 min.
D. Cost of Package

1. Booklet alone — $ 2.00
2. Cassette tape — $ 2.00
3. Slides — $11.20
   $15.20

COST OF PACKAGES

Booklets Only . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $10.00
Cassette Tapes Only . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $17.50
* 35mm Slides Only . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $142.50

Complete Package (Booklets, Cassette Tapes,
and 35mm slides) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $170.00

Cost of individual booklets, tapes, or 35mm slides are
indicated after each program outline.

All audio tape cassettes have both an audible and inaudible impulse for slide advancement. They
may be used with a regular cassette tape recorder and slide projector or with a synchronized slide-
tape system.

* If there is a sufficient number of requests for the slide packages, the possibility exists that these
slides can be transferred to filmstrips at a substantial savings to the purchaser.

Available from: Dickinson Public School District
               Instructional Media Center
               Post Office Box 1057, 444 West 4th Street
               Dickinson, North Dakota 58601
Exhibit "C"
(EMH—Special Needs—Disadvantaged)

CAREER AWARENESS MATERIALS

Regular Vocational Programs

Modified Programs

On-the-Job Training

Post High School Training

Employment

*AVCEM and/or other training packages