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ABSTRACT

Focusing on the identification of career education activities sponsored by business and industry in the Milwaukee area, a review of literature pertaining to the Home-Community Based, the School-Based, and the Employer-Based career education models was made, and data from personal interview questionnaires supplied from a Milwaukee survey of job training programs were analyzed by computers. Many businesses and industries in the Milwaukee area seem capable of implementing the Employer-Based Career Education Model sponsored by the U.S. Office of Education because they are already conducting employee training courses using their own facilities and instructors. Further studies of industry's potential for providing career education training and vocational development programs are recommended. Numerous tables present the data, and resource materials are appended. (AG)

FINAL REPORT
Project No. 19-019-151-222-F

CAREER EDUCATION PROVIDED BY BUSINESS AND INDUSTRY IN THE MILWAUKEE AREA

June, 1972

WISCONSIN BOARD OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION
Madison, Wisconsin

Final Report

Project No. 19-019-151-222-F

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Abigail A. Vander Kamp

June 30, 1972

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Abigail A. Vander Kamp

CHAPTER 1

CAREER EDUCATION - MILWAUKEE PROJECT

Summary

The central problem of this research project is the identification of career education activities sponsored by business and industry in the Milwaukee area.

Career education is rapidly gaining status as a means to make available quality education to all students so that they will be able to secure satisfactory employment at any exit point from school. It also aims to help workers move into other jobs if their present jobs become obsolete.

To meet this need, the U. S. Office of Education has set up three models. The Home-Based Model is designed to help women with their employment needs. The School Based Model centers on career education in the present school system - K through 12. The student will identify and examine occupational career roles to help him make a tentative career choice. The student will develop his training through skill-building courses and actual work experience. The Employer Based Model will involve employers in the education of high school students. Industry will be responsible for the student's academic, social, and occupational training. Through individualized learning packages, the student will learn the language and math skills needed to perform his work satisfactorily. In the Employer Based Model, the industries become the main instructors of students interested in this type of education.

The data secured by the Milwaukee Area Technical College Career Education Project survey and processed through the Data Processing Center, University of Wisconsin - Stout, shows that a number of industries in the Milwaukee area are already conducting employee training courses using their own facilities and instructors. The information gathered through this survey seems to point to the fact that many of the businesses and industries in the Milwaukee area are capable of implementing the Employer Based Career Education Model sponsored by the U. S. Office of Education since they already have many on-the-job training programs.

All the data seems to indicate that career education does not end with the completion of formal schooling. It is rather, a developmental, decision-making process for the continuous determination of one's livelihood.

Statement of the Problem

The problem this study focuses on is the identification of career education activities sponsored by business and industry in the Milwaukee area.

Objectives

The objectives of this study are as follows:

1. Assist in collecting data if necessary.
2. Determine the data processing categories to utilize in assessing industries' responses in order to determine their attitude toward career education.
3. To analyze the responses in the Milwaukee area to determine the scope and extent of the industries' career education activities.
4. To develop a report based on these findings.

Background for the Study

There is a need to determine what business and industry in Wisconsin are doing to assist the career development of their employees. In addition, training facilities for employees could be a resource for training high school students (Industry Based Career Education Model). The Milwaukee Area Technical College (MATC) surveyed industries in the Milwaukee area to determine the types and scope of vocational training they provide (Spring, 1972). Questions related to career education were included in the survey.

With the rapid obsolescence of jobs in our technological society, most people will have to change jobs several times during their working years. During the 1950's and early 1960's, it was estimated that the average person would have seven jobs. This estimate is now being increased to as many as twelve.

Formal educational programs at the elementary, secondary, and post-secondary levels have been encouraged to develop career education programs in order to prepare their students for the changing nature of the world of work. However, career development is a life-long, developmental, decision-making process which involves an understanding of self, the work world, and career development education. It is a planned, developmental, decision-making

process for the continuous determination of one's livelihood. Thus, the career education process does not end with completion of formal schooling nor does the need for assistance with career decisions cease at this point. U. S. Office of Education's Industry-Based Career Education Model recognized this need.

Review of the Literature

In reviewing the literature it was found that the U. S. Office of Education sees the need for more relevancy in career education programs within the present school systems. It is estimated that about 80 per cent of the school population do not go on to college or higher education and that many of these do not have the salable skills necessary to secure employment when they leave school. The U. S. Office of Education sees the need for these people to have the opportunity to acquire the necessary job skills to secure satisfactory employment when they leave school at whatever exit point they choose. It also sees an equally important need to encourage them to re-enter at any time for retraining and upgrading.

To help meet this need the U. S. Office of Education is coordinating a number of pilot projects in the initial phase of a model program aimed to help the young people in the present school system. The following laboratories and institutions are aiding in this program: The Education Development Center, Newton, Massachusetts--"The Home-Community Based Model"; The Center for Vocational and Technical Education, Ohio State University--"The School Based Model"; and the Far West Laboratory for Educational Research and Development and the Center for Urban Education, New York City--"The Employer Based Model." These models are being tested in a number of pilot school districts in different parts of the United States this school year and if they prove successful, will be offered to other interested school districts. Following is a brief summary of the different models being tested.

Home-Community Based Model

An exploratory program pertaining to the Home-Community Based Model was implemented in July, 1971 by the Education Development Center (EDC) in Newton, Massachusetts. In the three months following, EDC concentrated on these three objectives: (a) determining the population to be reached; (b) developing the procedures to be used; and (c) studying other significant career education programs.

This pilot program is career-oriented and concentrates on individualized learning programs. Career development centers in the communities are to provide tutorial, testing, and referral service to help in identifying and developing career interests. The Home-Community Based Model is flexible and can be adapted to the interests of any community (Butler, pp. 1-4).

The main purpose of the Home-Community Based Model is to help women with their employment needs. The EDC staff is investigating the use of television and radio as an important media in interesting women listeners in this program. This is being done because surveys have revealed that most U. S. homes contain television sets and over half of the country's adult population viewers are women. They believe the use of television will be very helpful in developing the career potential of interested women listeners (D & R Report, p. 18).

The EDC's goals for the Home-Community Based Model are as follows: (a) to make available career education resources to people not now using them, (b) to help people to enter community life through volunteer activities or paid employment, (c) to bring together career education agencies and the people needing their services, and (d) to identify and provide additional non-existent community resource needs (Butler, 1972, pp. 2-4).

Based on the research carried on by EDC the Office of Education proceeded to establish pilot programs in other cities to test the feasibility of this model (Butler, pp. 1-2).

School Based Model

The School Based Comprehensive Career Education Model Project conducted by the Center for Vocational and Technical Education, Ohio State University, centers on career education in the present school system in grades K through 12 and continuing through adulthood. The plan is to restructure the curriculum integrating the academic knowledges and skills with career education training. The model developed will assist the student from his earliest knowledge of career opportunities to career exploration, preparation, placement, and follow-up including retraining if necessary or desired. Career preparation is developmental in nature. The student observes and participates in career training through skill-building courses, field trips, and actual work experience in selected businesses in the community (Miller, 1972, pp. 1-12; Walter, D & R Report, p. 17).

The major goal of this project is to test this new curriculum in six pilot school districts in different parts of the United States during the 1972-73 school year. If the results of this testing project are satisfactory, the career education model will be made available to any interested school district for implementation (Miller, 1972, p. 12).

Employer Based Model

An Employer Based Career Education Model (EBCE) is being designed and piloted by the Far West Laboratory for Educational

Research and Development. The Far West Laboratory is working to develop a new kind of school in cooperation with employers. If the plan is successful, the cooperating employers will be responsible for the entire education of interested students. The EBCE plan is an optional not supplemental educational program for any junior-high or senior-high student. Its purpose is to provide the student with academic, vocational, and avocational training. It aims to attract a heterogeneous group of interested teen-aged students with respect to sex, race, college-bound and non-college bound and expose them to a variety of careers. The purpose of these experiences is to assist the student in making a career choice early in his school life (Banathy, 1972, pp. 1-12).

The learning program is individualized, allowing the student to help in planning his own education according to his interest and ability. He then proceeds at his own rate of learning. Performance objectives serve as guides. Advancement and/or job placement are based on the student's ability to demonstrate his competency.

EBCE is concerned with developing a favorable cost-benefit program comparable to that of the public school. If the program is found workable and economically feasible, a number of selected employers will manage this new kind of secondary school (D & R Report, p. 18).

The EBCE model differs from the present school system in that it allows a student (a) to advance at his own rate, (b) to become involved in real-life situations now, (c) to participate in planning his own educational program, and (d) to use the resources of the entire community as a learning lab. Through such a learning situation, the student has the opportunity to develop attitudes, habits, skills, and values that will help him adjust to his role as a contributing adult in the community (Banathy, 1972, pp. 7-11).

The Employer Based Model is also being tried in New York City using "satellite academies" located in rented buildings near businesses and industries that are willing to help train the students. The students will work under direct supervision of company managers. The students will also have the opportunity to develop math and language arts skills through programmed learning activities. Counseling services are made available to the interested students and their families (D & R Report, p. 17).

If the Employer Based Models being tested in various parts of the United States prove workable, then selected businesses and industries will be awarded government contracts to operate this type of school. The Employer Based Model is not a replacement of the traditional school system but an option for those students interested in this type of education (D & R Report, pp. 17-18).

Career Preparation

The purpose of career education according to Moullette (1972, pp. 1-10) is to prepare every student leaving school at any point either to secure useful employment or to be able to enter higher education. Career education can be provided by the present public secondary school system or it can also be provided by public secondary education agencies.

The major goal of career preparation through education, training, and skill development is the use of all educational possibilities which will: (a) plan a student-centered curriculum, (b) give equal consideration to education and training and students' needs and interests, (c) correlate academic and occupational education and training, and (d) inform students that a career choice is not a one-time decision (Moullette, 1972, pp. 2-4).

Career preparation is the whole effort of the home, the school, and the community to prepare students for satisfactory employment and advancement in an occupation. It is the concentrated effort of the home, the school, and the community to educate youth so that they can become well adjusted contributing members of society (Hoyt, 1972, pp. 2-4).

Career education refers to all learning experiences from kindergarten through adult life. As the child progresses in school and becomes more aware of the world of work, he will be able to make a tentative career choice and begin to acquire the necessary skills to secure gainful employment upon leaving school. Because of the rapidly changing job requirements of today, it is important that he be able to return to school at any time during his working career to improve his job skills or enrich his personal life (Hoyt, 1972, pp. 3-5).

Career education specialists must plan a program to help youth realize the importance of work in our society. Students must become aware of the many and varied occupations available and be on the alert for the constantly emerging new careers. It is important that all individuals appreciate the dignity of every working individual. Respect for all people and the work they do is basic to our American way of life (Pucinski, pp. 11-15).

Career education is being developed through state-level curriculum laboratories and state vocational research coordinating units in other areas besides those already mentioned. States with outstanding examples of local efforts to install career education programs include Delaware, Georgia, Mississippi, New Jersey, North Dakota, and Wyoming. Large-city school systems turning to career education as their basic design include those of Dallas and San Diego (Career Education, pp. 9-10).

Career Placement and Follow-up

A very important part of the career preparation program is placement and follow-up. When students have attained employment entry skills, they will need help in securing employment. For those students working under the Employer Based Model, advancement and/or job placement are based on the student's ability to demonstrate his competency.

With fewer jobs and the termination of many jobs in this rapidly changing technological world, it is important to have well-trained placement personnel to help secure satisfactory employment for those desiring employment. Placing a person today is no longer a one-time operation.

Placement personnel need to keep close contact with the workers and help them advance or change occupations if they are dissatisfied with the occupation. A worker's dissatisfaction with a job should not be taken as a personal affront on the part of the placement personnel; it should be a challenge. The well-trained personnel director will be constantly on the lookout for new job opportunities and will show as much interest in placing a person a second, third, fourth, or more times as he did the first time.

Placement and related follow-up are a part of career education. When placement is the main responsibility of the school, career education and coordinated efforts will be more relevant (Pucinski, 1971, pp. 11-15).

CHAPTER 2

PROCEDURES

In order to carry out this study a review of the current literature on Career Education was made. The three models: Home-Community Based Model, the School Based Model, and the Employer Based Model were given careful consideration. Other Career Education studies were examined to gain background for what is being done in other sections of the United States in the field of Career Education.

To find out what emphasis is given Career Education in industry in Wisconsin a study was made of the data supplied by the Milwaukee Area Technical College (MATC) Survey of Training Programs Sponsored by Business, Industry, Labor, and Government. It was found that questions pertaining to career education were included in the personal interview questionnaire developed by MATC and used in interviewing a sample of businesses and industries in the Milwaukee area. The firms included in the study were a part of a small random sample of businesses and industries in Milwaukee.

The survey questionnaires provided by MATC were reviewed and coded and processed through the Data Processing Center at Wisconsin University - Stout. The results of this data are given in Chapter 3.

CHAPTER 3

ANALYSIS AND INTERPRETATION OF DATA

The personal interview questionnaire* used by the Milwaukee Area Technical College (MATC) Survey of Training Programs Sponsored by Business, Industry, Labor, and Government was developed by Dennis Redovich for the purpose of collecting data pertaining to the following five areas of employee training programs in industry in the Milwaukee area: (a) administrative and supervisory, (b) other professional and technical staff, (c) clerical and secretarial, (d) apprentices, and (e) production and maintenance personnel.

In analyzing the data of the personal interview questionnaires used by MATC Study, it was found that business and industry in the Milwaukee area have career education training programs for their employees. Out of 79 questionnaires processed for this study the data indicate that 54.43 per cent of the industries responding have formal training programs for employees in administrative and supervisory positions. Half of the 79 questionnaires processed show that the industries have formal training programs for apprectices.

There are also training programs for production and maintenance personnel in a number of the industries. A number of the businesses and industries offered some formal training programs for other professional, technical, clerical, and secretarial personnel. Table 1, page 3.2 gives a brief summary of the types of programs and the percentages of those responding that have these programs for their employees.

The formal employee training programs as shown in Table 2, page 3.3 are designed for the following: job entry, retraining, and upgrading of the employee or any combination of these. Employees enrolled in the administrative and supervisory programs are doing so for the purpose of advancement in their work.

In analyzing Table 2, page 3.3, it appears that upgrading ranks first for employees enrolled in the following three programs: administrative and supervisory, professional and technical, and production and maintenance personnel as compared with job entry which ranked first for people enrolled in the clerical and apprentice programs.

Many of the industries provide employee training using their own facilities. Table 3, page 3.4 shows the number of industries

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NOTE: *See Appendix A-1 for the Personal Interview Questionnaire.

TABLE 1

INDUSTRY AND BUSINESS HAVING ORGANIZED FORMAL TRAINING PROGRAMS FOR EMPLOYEES

N=79

Item No. 1 on Questionnaire

Programs	Yes	Per Cent	No	Per Cent
Administrative & Supervisory Personnel	43	54.43	19	24.05
Apprentices	40	50.63	16	20.25
Other (Production, Maintenance, etc.)	29	36.70	16	20.25
Other Professional & Technical	27	34.17	26	32.91
Clerical & Secretarial	12	10.51	33	41.77

TABLE 2

PURPOSE OF FORMAL EMPLOYEE TRAINING PROGRAMS

N=79

Item No. 2 on Questionnaire

	Job Entry		Retraining		Upgrading of Employees		Job Entry and Retraining		Job Entry and Upgrading		Retraining and Upgrading		Job Training Retraining Upgrading	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Administrative & Supervisory	4	5.06	6	7.58	19	24.05	1	1.26	3	3.79	8	10.12	2	2.53
Other Professional & Technical	6	7.58	2	2.53	10	12.65	1	1.26	1	1.2	3	3.79	5	6.33
Clerical	3	3.79	1	1.26	2	2.53	1	1.26	1	1.26	2	2.53	2	2.53
Apprentices	20	25.31	7	8.86	4	5.06	4	5.06	0	- --	3	3.79	1	1.26
Other (Production, Maintenance, etc.)	4	5.06	3	3.79	11	13.92	2	2.53	1	1.26	4	5.06	6	7.58

TABLE 3

NUMBER OF INDUSTRIES PROVIDING EMPLOYEE TRAINING IN 1971
USING INDUSTRIES' CLASSROOMS AND SHOP FACILITIES

N=79

Item No. 3 on Questionnaire

Training Courses	Number of Industries Training				
	Under 10 Employees	11-25 Employees	26-50 Employees	51-100 Employees	101 & Over Employees
Administrative & Supervisory Personnel	9	8	9	10	7
Other Professional & Technical	6	5	7	3	6
Clerical	6	3	1	2	1
Apprentices	16	10	8	3	2
Other (Production, Maintenance, etc.)	8	8	6	2	5

providing employee training programs in 1971. The data indicate that 16 industries have 10 or less employees enrolled in the apprentice programs, 10 industries have between 11 and 25 employees enrolled in an apprentice program, and 10 industries have 51 to 100 employees enrolled in the administrative and supervisory programs. This seems to indicate that industries in the Milwaukee area have the capabilities of training interested students for job entry with on-the-job training programs as stressed in the Employer Based Career Education model proposed by the U. S. Office of Education.

In Table 4, Appendix C-1, it would seem that a number of industries pay for the training programs conducted in off-premise classrooms. The number of employees enrolled in these training programs ranges from under 10 to over 101. Several industries had 10 or less employees enrolled in each of the following programs: administrative and supervisory, other professional and technical, clerical, apprentice, and production and maintenance. Some industries had between 11 and 25 employees enrolled in these programs. A few industries had more than 100 employees enrolled in the administrative and supervisory, and professional and technical training programs.

The skills, trades, and apprentice programs seem to be the most used with 73.4 per cent or 58 programs in these areas as indicated in Table 5, Appendix C-2. The management, supervisory, and tech. II (engineering, technicians, etc.) ranked from 34.1 per cent to 24.0 per cent. Other programs, secretarial and office, safety and health, clerical and speed reading and writing skills were also being offered by the industries interviewed.

In a general questioning of business and industry about training programs conducted off their premises and/or instructors who are not full time employees of their firm, it was found that 47 or 59.4 per cent of the industries providing such training did so for the administrative and supervisory programs; 44 or 55.6 per cent sponsored the apprentice programs; and 31 or 39.2 per cent sponsored the professional and technical programs. Table 6, Appendix C-3 gives a more detailed break-down of these off-premise programs.

An analysis of Table 7, Appendix C-4, which gives a listing of schools or firms used for industry training programs, shows that company on-the-job training programs ranked first with 27.8 per cent of the programs being conducted by industries using their own facilities and instructors. However, industry uses a number of schools and firms for training programs for their employees. Ranking second with 26.5 per cent of the training programs was the VTAE District 9 - MATC, and trade schools ranked third, conducting 25.3 per cent of the training programs.

Since many of the responding industries provide their own training programs for their employees using their own facilities and their own instructors it would seem that the Milwaukee industries would be able to handle the U. S. Office of Education's Employer Based Career Education Model of instruction for training interested students. However, since a great number of businesses and industries also use a number of schools and firms for training their employees it appears that both types of programs are needed in the Milwaukee area for the training and upgrading of employees.

In the area of major program changes since 1970, 17 or 21.51 per cent of the industries responding made employee training changes in the administrative and supervisory programs. There were also some changes in the professional and technical and apprentice training programs since 1970. More information concerning program changes will be found in Table 8, Appendix C-5.

The Milwaukee industries are interested in a number of new vocational technical and adult programs or courses that would aid their training programs. The data seem to indicate that most of this training could be provided by the various VTAE schools and trade schools in the area. See Table 9, Appendix C-6 for more details regarding new programs desired by industry.

From a detailed study of the interview questionnaire and the data compiled, it seems that the average length of the formal employee training programs range from less than 100 hours of training to over 9000 hours. Some of the programs (the administrative and supervisory, and production and maintenance programs) are continuous. See Table 10, Appendix C-7 for more detailed information concerning hours of training.

All the data seems to indicate that career education does not end with completion of formal schooling, but is a developmental, decision-making process for the continuous determination of one's livelihood.

The information gathered through this survey seems to point to the fact that many of the businesses and industries in the Milwaukee area are capable of implementing the Employer Based Career Education Model sponsored by the U. S. Office of Education since they already have many on-the-job training programs.

CHAPTER 4

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to identify the career education activities sponsored by business and industry in the Milwaukee area.

A review of the literature indicates that career education is rapidly gaining status as a means to make available quality education to all students so that they will have the opportunity to either secure satisfactory employment or enter higher education. The three career education models sponsored by the U. S. Office of Education being piloted this year are a means of improving career education in the present school system. The models are set up to provide each student with an opportunity to gain the necessary skills that will help him find employment. If the Employer Based Model proves feasible it will be important to industries because they will be the main instructors of students interested in this type of education.

Conclusions

The review of the Milwaukee project shows that a number of industries in the Milwaukee area are already conducting employee training courses using their own facilities and instructors. If the Employer Based Career Education Model is implemented in Wisconsin, it would seem that these industries, using their own facilities, would be capable of training interested students.

Recommendations

From the study of the Milwaukee project the following recommendations are being made:

1. Further study should be made of industries' training programs to determine the quality of these training programs.

2. Additional study should be made to determine if industry is willing and able to provide sufficient training programs for all students interested in this type of education.

3. Further study should be made to determine if industry will accept the new concept in career education--that of training interested students with on-the-job training in a number of different job positions.

4. Studies should be made to determine ways of interesting industries that do not have employee training programs to become involved in on-the-job training.

5. Further study should be made to determine if industry placement departments would be able to place all students who complete this training program.

6. Study should be made to determine if industry's placement department would give continuous help to secure higher positions for employees who enroll in retraining and upgrading courses for the purpose of advancement.

7. Study should be made of other areas of Wisconsin to determine the kinds and number of job training programs in existence at this time.

8. Study should be made to see if industry would be interested in providing career education training programs as a supplement to the present education system.

REFERENCES

BIBLIOGRAPHY

Banathy, Bela, and Robert M. Peterson. "Employer Based Career Education (EBCE)" A Model Developed at the Far West Laboratory for Educational Research and Development, prepared for a Symposium on Career Education conducted at the 1972 annual meeting of the American Educational Research Association.

Butler, Cornelius F. "The Home-Community Based Model" ("Model Three") of the U. S. Office of Education's Career Education R & D Program, A Synopsis. Career Education Development Task Force. (Mimeographed.)

DeVore, Paul W. "Curriculum Focus--Occupations and the World of Work." Morgantown, West Virginia: Office of Research and Development, Appalachian Center, West Virginia University, 1969. Information Series 5.

District 1 - Technical Institute. A Guide to Career Education. Eau Claire, Wisconsin: District 1; Technical Institute, 1972.

Educational Testing Service. "Proceedings of the Conferences on Career Education." Beverly Hills, California, Washington, D.C., May, 1972. Princeton, New Jersey: Educational Testing Service, 1972.

Howe, Harold II. "Implications of Career Education," in Proceedings of the Conferences on Career Education. Beverly Hills, California, Washington, D.C., May, 1972. Princeton, New Jersey: Educational Testing Service, 1972.

Hoyt, Kenneth B., Rupert N. Evans, Edward F. Mackin, and Garth L. Mongum. Career Education--What It Is and How To Do It. Salt Lake City, Utah: Olympus Publishing Company, 1972.

Information Office for the Council for Educational Development and Research, Inc. "Vocational Education," D & R Report, Periodical of the Council for Educational Development and Research, Inc., Denver, Colorado: Information Office for the Council for Educational Development and Research. Volume 1, Number 4.

Logan, Richard L. "Career Education for Industrial Workers." (A paper prepared for Instrumentation for Research Class at University of Wisconsin - Stout, Summer Session, 1972. (Mimeographed.)

Miller, Aaron J. "Strategies for Implementing Career Education: A School Based Model." Prepared for the 1972 Annual Meeting of the American Educational Research Association, Chicago, Illinois, April 3-7, 1972. Columbus, Ohio: The Center for Vocational & Technical Education, The Ohio State University, 1972. (Mimeographed.)

Moullette, John B. "Career Preparation in the Integrated Curriculum of Comprehensive Career Education." Presented to Local Education Personnel at the LEA Curriculum-Career Preparation Workshop Jefferson County, Colorado, 1972. Columbus, Ohio: The Center for Vocational & Technical Education, the Ohio State University, 1972. (Mimeographed.)

Pucinski, Roman C. "Nature of Career Education," in Proceedings of the Conferences on Career Education. Beverly Hills, California, Washington, D. C., May, 1972. Princeton, New Jersey: Educational Testing Service, 1972, pp. 11-15.

U. S. Department of Health, Education, and Welfare. Career Education. Washington, D. C.: Government Printing Office, 1971.

U. S. Superintendent of Documents. Career Education: A Handbook for Implementation. (Developed Pursuant to a Grant with the U. S. Office of Education by the Maryland State Board of Education under a subcontract with the Olympus Research Corporation, February, 1972). Washington D. C.: Government Printing Office, 1972.

APPENDIX A

INTERVIEW QUESTIONNAIRE

Used by MATC in the Milwaukee Industry Survey

INTERVIEW QUESTIONNAIRE*

Questionnaire completed by: Name _____ Title _____

1. Do you have organized, formal training programs for any of the following employees?

			Average Total Length of Programs (In Hours)
Administrative and Supervisory Personnel	Yes ___	No ___	_____
Other Professional and Technical	Yes ___	No ___	_____
Clerical and Secretarial	Yes ___	No ___	_____
Apprentices	Yes ___	No ___	_____
Other (Production, Maintenance, etc.)	Yes ___	No ___	_____

A-1

2. What is the purpose of these training programs?

	Job Entry	Retraining For New Positions Or Promotions	Upgrading of Employees to Do Their Jobs Better
Administrative and Supervisory	___	___	___
Other Professional and Technical	___	___	___
Clerical	___	___	___
Apprentices	___	___	___
Other (Production, Maintenance, etc.)	___	___	___

(Please turn to next page)

NOTE: *This Interview Questionnaire was developed by Dr. Dennis Redovich, Research Coordinator, Milwaukee Area Technical College, Milwaukee, Wisconsin, 1972.

3. Approximately how many employees were trained in 1971 in the following types of training courses?

Training done in classrooms, laboratories, or shops at your facility:

	Number of Employees Taking Training in 1971				
	Under 10	11 - 25	26 - 50	51 - 100	101 and Over
Administrative and Supervisory	____	____	____	____	____
Other Professional and Technical	____	____	____	____	____
Clerical	____	____	____	____	____
Apprentices	____	____	____	____	____
Other (Production, Maintenance, etc.)	____	____	____	____	____

Training done in classrooms off of the premises but paid for by your organization; i.e., employees sent to company sponsored training programs out of state, or state VTAE schools.

Administrative and Supervisory	____	____	____	____	____
Other Professional and Technical	____	____	____	____	____
Clerical	____	____	____	____	____
Apprentices	____	____	____	____	____
Other (Production, Maintenance, etc.)	____	____	____	____	____

4. What training programs are conducted using classrooms off your premises and/or instructors who are not full-time employees of your organization? What schools or firms are used for these training programs? (Use extra page, if necessary.) (Include vocational-technical schools.)

Program	For Whom	School or Firm

5. Have there been major changes in your training programs (such as type of training, number of programs, number of trainees, length of training, etc.) since 1970? Since 1966?

6. What new programs or courses might be offered at vocational, technical and adult schools that could be used in your training programs?

APPENDIX B

CODES FOR PROCESSING QUESTIONNAIRE

CODES FOR PROCESSING QUESTIONNAIRE

Code for Question No. 1

1 Omit
2 1-100
3 101-300
4 301-500
5 501-1000 (6 months)
6 1001-3000 (1 year = 2080 hours
7 3001-6000 (1 1/2 years = 3120; 2 years = 4160 hours)
8 6001-9000 (4 years = 8320 hours)
9 Over 9001 (5 years = 10,400 hours)
10 Continuous
11 Per Contract
12 Other

Code for Question No. 4 -- Programs

1 Clerical
2 Tech. I (Skills, Trades, Pipefitters, Apprentices, etc.)
3 Tech. II (Engineers, Technicians)
4 Secretarial and Office (Accountants)
5 Sales
6 Safety and Health
7 Reading (Speed Reading and Writing Skills, etc.)
8 Supervisors
9 Management
10 Improve Existing Programs
11 Modify to Meet Needs
12 None
13 Other

Code for Question No. 4 -- For Whom

1 Administrative and Supervisory
2 Other Professional and Technical
3 Clerical
4 Apprentices
5 Other (Production, Maintenance, etc.)
6 None or Omit

Code for Question 4 -- Schools

1	VTAE District 1 - Eau Claire
2	VTAE District 2 - La Crosse
3	VTAE District 3 - Fennimore
4	VTAE District 4 - Madison
5	VTAE District 5 - Janesville
6	VTAE District 6 - Kenosha
8	VTAE District 8 - Waukesha
9	VTAE District 9 - Milwaukee
10	VTAE District 10 - Fond du Lac
11	VTAE District 11 - Sheboygan
12	VTAE District 12 - Appleton
13	VTAE District 13 - Green Bay
14	VTAE District 14 - Wisconsin Rapids
15	VTAE District 15 - Wausau
16	VTAE District 16 - Rhinelander
17	VTAE District 17 & 18 - Superior - New Richmond
19	Trade Schools
20	Company On-the-Job Training Schools
21	University of Wisconsin - Eau Claire
22	University of Wisconsin - La Crosse
23	University of Wisconsin - Madison
24	University of Wisconsin - Milwaukee
25	University of Wisconsin - Oshkosh
26	University of Wisconsin - Platteville
27	University of Wisconisn - River Falls
28	University of Wisconsin - Stevens Point
29	University of Wisconsin - Stout
30	University of Wisconsin - Superior
31	University of Wisconsin - Whitewater
32	University of Wisconsin - Branch Campus - Green Bay
33	University of Wisconsin - Branch Campus - Rice Lake
34	University of Wisconsin - Branch Campus - Richland Center
35	University of Wisconsin - Branch Campus - Parkside
36	University of Wisconsin - Extension - Madison
37	Marquette University - Milwaukee
38	University of Illinois
39	University of Michigan
40	University of Minnesota
41	University of Northern Illinois
42	Spencerian College
43	Local High Schools
44	Correspondence Schools
45	Other
46	None or Omit

Code for Question No. 5

1 Administrative and Supervisory
2 Other Professional and Technical
3 Clerical
4 Apprentices
5 Other
6 No

Code for Question No. 6

1 Administrative and Supervisory
2 Other Professional and Technical
3 Clerical
4 Apprentices
5 Other (Production, Maintenance, etc.)
6 None or Omit

APPENDIX C

RESULTS OF MATC PERSONAL INTERVIEW QUESTIONNAIRE

TABLE 4

NUMBER OF INDUSTRIES PAYING FOR EMPLOYEE TRAINING IN 1971 USING OFF-PREMISE CLASSROOMS

N=79

Item No. 3 on Questionnaire

Training Courses	Number of Industries Paying for Training				
	Under 10 Employees	11-25 Employees	26-50 Employees	51-100 Employees	101 & Over Employees
Administrative & Supervisory Personnel	11	12	7	2	1
Other Professional & Technical	8	8	2	1	2
Clerical	7	3	1	0	0
Apprentices	17	6	5	2	0
Other (Production, Maintenance, etc.)	11	6	2	3	0

TABLE 5

NUMBER OF EMPLOYEE TRAINING PROGRAMS PROVIDED BY INDUSTRIES USING OFF-PREMISE CLASSROOMS AND/OR INSTRUCTORS WHO ARE NOT FULL-TIME EMPLOYEES OF THEIR ORGANIZATION

N=79

Item No. 4 on Questionnaire

Training Courses	Number of Programs	%
Tech. I (Skills, Trades, Apprentices, etc.)	58	73.4
Management	27	34.1
Supervisors	23	29.1
Tech. II (Engineering, Technicians, etc.)	19	24.0
Secretarial & Office (Accountants)	6	7.5
Safety & Health	5	6.3
Clerical	4	5.0
Other	4	5.0
None	4	5.0
Reading (Speed Reading & Writing Skills)	2	2.5

TABLE 6

INDUSTRIES PROVIDING TRAINING PROGRAMS USING CLASSROOMS OFF PREMISES AND/OR INSTRUCTORS WHO ARE NOT FULL-TIME EMPLOYEES OF THEIR ORGANIZATION

N=79

Item No. 4 on Questionnaire

	Number of Industries Having Programs	%
Administrative and Supervisory	47	59.4
Apprentices	44	55.6
Other Professional & Technical	31	39.2
Other (Production, Maintenance, etc.)	15	18.9
Clerical	5	6.3

TABLE 7

SCHOOLS OR FIRMS USED FOR INDUSTRY TRAINING PROGRAMS

N=79

Item No. 4 on Questionnaire

	Number of Programs	%
Company On-the-Job Training	22	27.8
VTAE District 9 - Milwaukee	21	26.5
Trade Schools	19	25.3
University of Wisconsin - Madison	10	12.6
VTAE District 13 - Green Bay	9	11.3
University of Wisconsin - Milwaukee	8	10.1
University Extension - Madison	7	8.8
VTAE District 5 - Janesville	6	7.5
VTAE District 6 - Kenosha	5	6.3
Other	5	6.3
VTAE District 1 - Eau Claire	4	5.0
VTAE District 2 - LaCrosse	4	5.0
VTAE District 14 - Wisconsin Rapids	4	5.0
Marquette University - Milwaukee	4	5.0
VTAE District 3 - Fennimore	2	2.5
VTAE District 11 - Sheboygan	2	2.5
VTAE District 15 - Wausau	2	2.5
University of Wisconsin - Stout	2	2.5
Local High Schools	2	2.5
VTAE District 4 - Madison	1	1.2
VTAE District 12 - Appleton	1	1.2
University of Wisconsin - Stevens Point	1	1.2
Branch Campus - Parkside - Kenosha	1	1.2
University of Illinois	1	1.2
University of Michigan	1	1.2
Spencerian College - Milwaukee	1	1.2

TABLE 8

AREA WHERE MAJOR PROGRAM CHANGES TOOK PLACE

N=79

Item No. 5 on Questionnaire

	Since 1970		Since 1966	
	No.	%	No.	%
Administrative & Supervisory	17	21.51	6	7.58
Other Professional & Technical	7	8.86	7	8.86
Clerical	0	- --	1	1.26
Apprentices	3	3.79	1	1.26
Other (Production, Maintenance, etc.)	1	1.26	0	- --
No Change	21	26.58	16	20.25

TABLE 9

NEW VOCATIONAL TECHNICAL AND ADULT PROGRAMS OR COURSES
THAT WOULD AID INDUSTRY TRAINING PROGRAMS

N=79

Item No. 6 on Questionnaire

	Number	%
Tech. I	22	27.8
Management	16	20.2
Modify Courses to Meet Needs	9	11.3
Secretarial & Office (Accountants)	8	10.1
Safety & Health	8	10.1
Supervision	8	10.1
Improve Existing Programs	8	10.1
Tech. II (Engineers, Technicians, etc.)	5	6.3
No or none	5	6.3
Clerical	3	3.7
Reading (Speed Reading and Writing Skills)	3	3.7
Sales	2	2.5
Other	1	1.2

TABLE 10

AVERAGE LENGTH OF FORMAL EMPLOYEE TRAINING PROGRAMS

N=79

Item No. 1 on Questionnaire

	Hours 1-100	Hours 101-300	Hours 301-500	Hours 501-1000	Hours 1001-3000	Hours 3001-6000	Hours 6001-9000	Hours Over 9000	Con-tinuous	Per Contract	Other
Administrative & Supervisory	26	3	0	2	2	1	1	1	1	0	3
Other Professional and Technical	11	4	2	3	1	1	2	0	0	0	2
Clerical and Secretarial	8	0	1	0	0	0	0	0	0	0	4
Apprentices	1	0	5	2	0	3	9	2	0	1	2
Other (Production, Maintenance, etc.)	11	1	0	1	3	2	2	0	1	0	2