THE ADULT EDUCATION PROGRAM OF THE UAW LOCAL 412 TECHNICAL TRAINING CENTER

Thesis for the Degree of Ph. D.

MICHIGAN STATE UNIVERSITY

Jack F. Zook

1965

This is to certify that the

thesis entitled

The Adult Education Program Of The UAW
Local 412 Technical Training Center

presented by

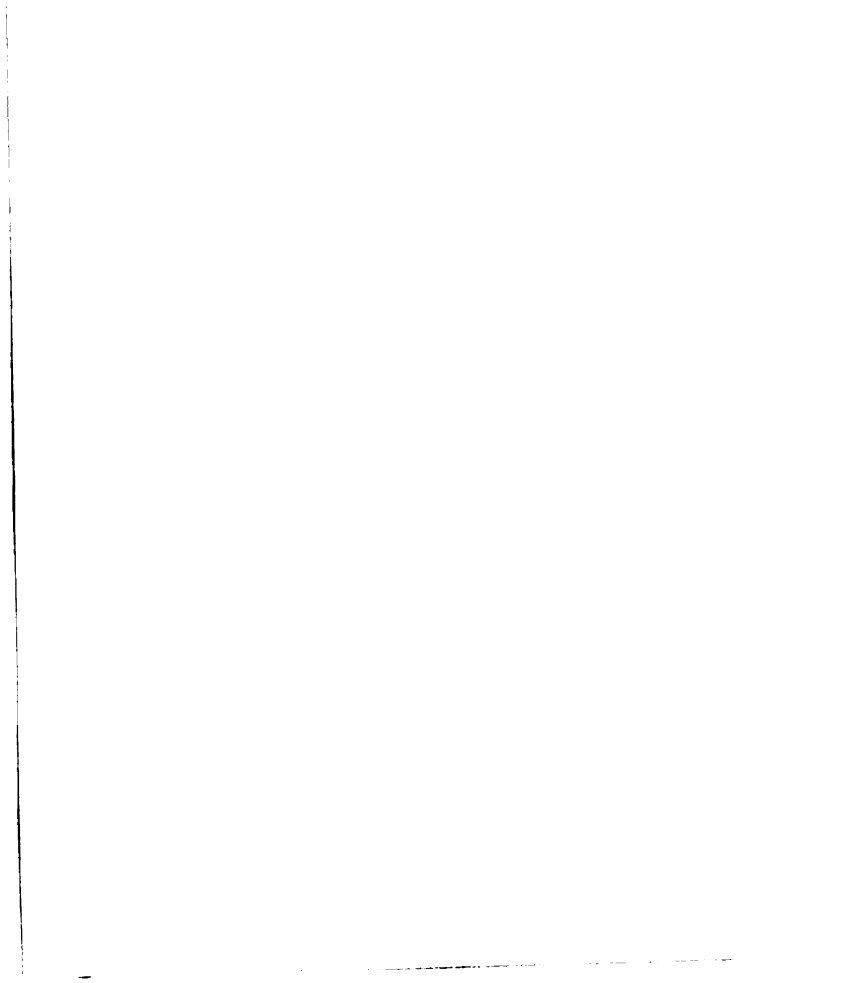
Jack F. Zook

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Administration and Higher Education

Harold K. Dillon
Major professor

Date November 9, 1965



THE ADULT EDUCATION PROGRAM OF THE UAW LOCAL 412 TECHNICAL TRAINING CENTER

By

Jack F. Zook

AN ABSTRACT OF A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

College of Education

1965

ABSTRACT

THE ADULT EDUCATION PROGRAM OF THE UAW
LOCAL 412 TECHNICAL TRAINING CENTER

By Jack F. Zook

The purpose of this study was to evaluate a unique adult educational program initiated by UAW Local 412, a Detroit labor union. This organization, the Amalgamated Engineers, Technicians, and Associates which were based in the engineering division of the Chrysler Corporation, faced the problem that some of its members were to be phased out of their jobs by automated equipment.

As a solution to this problem, UAW Local 412 planned an adult education program that was designed to retrain these workers in the saleable skills of clay modeling, graphic illustrating and product detailing. Research had shown there existed a demand for workers with these skills in the Detroit metropolitan area. In the early planning stages it was learned that the United States government, through the Manpower Development and Training Act, would aid in the selection of trainees, underwrite most of the cost and attempt job placement of the graduates.

This has been an examination of the resultant program, the UAW Local 412 Technical Training Center. The study dealt with the background and history of the program, investigated the curriculum and the participants and evaluated the entire operation.

Both the staff and the students were asked to evaluate the training program as it was nearing completion. These data were gathered, tabulated and analyzed for future reference. Later, three months after the classes graduated, the students were again contacted and asked to relate their training experience to their current employment status. They were also asked to again evaluate various phases of the training program. These data were added to that which was gathered earlier and the combination was further analyzed. From this analysis, certain observations, conclusions and recommendations were made. It was here that the apparent strengths and weaknesses of the program were recorded.

Major recommendations for the improvement of this and future programs were made. These suggest that the criteria used in the selection of students for training programs be realistic in terms of the job placement potential and that industry be included as a full and equal partner with government and labor if job placement is the goal of such training programs.

THE ADULT EDUCATION PROGRAM OF THE UAW LOCAL 412 TECHNICAL TRAINING CENTER

By

Jack F. Zook

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

College of Education

1965

ACKNOWLEDGEMENTS

The writer wishes to express his gratitude to Dr. Harold J. Dillon, Chairman of his Guidance Committee, for the help and direction that was extended to him throughout his studies for the doctoral degree. A thank you is also extended to the members of the Guidance Committee: Dr. Clyde Campbell, Dr. John Useem and Dr. Max S. Smith.

The study of the UAW Local 412 Technical Training Center would not have been possible without the cooperation of the staff and members of its administrative board. The cooperation and assistance of Joseph V. Tuma, UAW International Union, Ray J. Sullivan, President, UAW Local 412, and Wayne E. Schultz, Director of the school is gratefully acknowledged. The assistance of W. E. Gleason, Professional Division of the Michigan Employment Security Commission, and the staff and students of the Technical Training Program is appreciated.

CONTENTS

		Page
ACKNOWLEDGEMENTS		ii
LIST OF TABLES		iv
CHAPTER		
I.	THE PROBLEM	1
II.	BACKGROUND INFORMATION	9
III.	HISTORY OF THE PROGRAM	18
IV.	THE UAW LOCAL 412 TECHNICAL TRAINING CENTER	25
V.	THE PARTICIPANTS	29
VI.	INITIAL EVALUATION OF THE PROGRAM	38
VII.	THE FOLLOW-UP STUDY EVALUATION	60
VIII.	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	72
BIBLIOGRAPHY		84
APPENDICES		
I.	PERSONNEL SURVEY	87
II.	INSTRUCTOR SURVEY	94
III.	FOLLOW-UP QUESTIONNAIRE	97

LIST OF TABLES

TABLE		Page
I.	CHANGE IN EMPLOYMENT, 1960-1970	20
II.	RECRUITMENT SOURCE	31
III.	DEMOGRAPHIC CHARACTERISTICS OF 55 TECHNICAL TRAINING CENTER STUDENTS	35
IV.	EDUCATIONAL LEVEL	40
V.	THE SELECTION PROCESS	41
VI.	THE FACILITY AND FURNISHINGS	42
VII.	QUALITY OF SUPPLIES	43
VIII.	TRAINING RECEIVED	44
IX.	VALUE OF TIME AND EFFORT EXPENDED	44
X.	TRAINEES' MOST DIFFICULT AREA OF TRAINING . .	45
XI.	AREA OF TRAINING FOUND MOST ENJOYABLE BY THE TRAINEES	46
XII.	INDIVIDUALIZED INSTRUCTION	47
XIII.	QUALITY OF THE GROUP LECTURES	48
XIV.	THE GRADING SYSTEM	49
XV.	THE INSTRUCTOR RATINGS	50
XVI.	SUGGESTIONS FOR IMPROVING THE INSTRUCTION	51
XVII.	PLANNING	53
XVIII.	SUGGESTIONS FOR IMPROVING THE OPERATION . .	54
XIX.	UNDIFFERENTIATED DROP-OUT AND GRADUATE COMPARISONS	57

LIST OF TABLES (Continued)

TABLE		Page
XX.	DIFFERENTIATED DROP-OUT AND GRADUATE COMPARISONS	59
XXI.	PERCENTAGE OF FOLLOW-UP QUESTIONNAIRES RETURNED	62
XXII.	FOLLOW-UP EVALUATIVE CRITERIA	63
XXIII.	RELATIONSHIP OF PRESENT EMPLOYMENT TO TRAINING RECEIVED	64
XXIV.	WEEKLY WAGE INCREASES	65
XXV.	METHOD OF PLACEMENT.	66
XXVI.	AGENCIES FROM WHICH EMPLOYMENT WAS SOUGHT . .	67
XXVII.	REASONS FOR REJECTING JOB OFFER	68
XXVIII.	PROSPECTIVE EMPLOYER CONTACTS AND RESPONSES	71

CHAPTER I

THE PROBLEM

UAW Local 412 is a Detroit based labor union that has conducted an upgrading training program for approximately sixty individuals in skills peculiar to the automotive industry. The program was carried out in an abandoned union hall that was refurbished and renamed the UAW Local 412 - Technical Training Center. It has retrained approximately twenty individuals in the area of product detailing, twenty in graphic illustrating and twenty in clay modeling.

This privately promoted adult education program is unique in several important ways. It was promulgated by a labor union that assumed greater responsibility to its membership other than just representing it in labor disputes and contract negotiation with industry representatives. Some of its members were to be "phased out" of their jobs as a result of technological change and it was thought that retraining these individuals in new skills to upgrade them in their work would relieve them of the possibility of unemployment. The new skill areas were selected on the basis that shortages of workers already existed in the field and new workers would find ready employment.

Later, as this idea developed, it became a cooperative venture with the Federal government, who not only co-sponsored

the program, but underwrote most of the costs. The agreement was carried out through the Manpower Development and Training Commission, an Act passed by Congress in 1962.

The participants were unique for such a program, for they did not come from the ranks of the unemployed, but were under-employed on their existing jobs. The over-riding theme of this program was to upgrade workers whose potential skills were not being fully utilized in their present work. Once these workers were retrained and moved to better jobs, the void they left, if not eliminated by technological change, would be occupied by those who had less potential.

The classroom instruction had a somewhat different emphasis than that found in many adult education classes. The instructors for all three training areas were men working in industry, practicing the skills they were teaching. All possessed formal teaching experience but the major concern in retaining them was based on their first-hand knowledge of the skills they were to teach in relation to the standards required by industry.

Finally, the school is housed in an obsolete union hall that was remodeled and refurbished to approximate the conditions and standards demanded by industry. It houses offices, a clay modeling room and a drafting room -- all designed to furnish students with the latest equipment in their field of work.

The nature of this study is intended to describe the adult education program of the UAW Local 412 - Technical

Training Center and to subsequently evaluate this program. In so doing, the causative factors, such as research studies and roles played by various agencies will be discussed. Since the Federal government has been so extensively involved, it too, will draw much attention in this section.

The following section will discuss the program conducted at the Technical Training Center. It will include a description of the facility, a briefing about the staff and its functions and an examination of the curriculum.

Succeeding this will be a chapter devoted to the participants. Their recruitment and the screening process used to select them including the functions of certain agencies will be discussed. Also to be included will be the demographic characteristics of the students and a discussion of these statistics. The ensuing chapter dwells on an internal evaluation of the program. Students and staff were asked to fill out questionnaires requesting them to record their feelings about the training received and to offer suggestions for improving the program. A summation and evaluation of the returns concludes this section.

A subsequent chapter concentrates on a follow-up study and, in turn, evaluates the results. It is based on a questionnaire submitted to students three months following graduation where an attempt is made to determine if any type of job improvement has accrued as a result of retraining. The final chapter is employed in summarizing the data accumulated.

Delimitations:

I. The study was confined to describing and evaluating the UAW Local 412 - Technical Training Center which is located at 4850 Conners Avenue, Detroit, Michigan. The school sponsored an adult education program which was cooperatively financed by UAW Local 412 and the Office of Manpower, Automation and Training, an agency of the United States Government under the Manpower Development and Training Act of 1962.

II. The entire study covers a two-year period of time ending in February of 1965.

III. The study was limited to conducting an internal evaluation and a follow-up evaluation. The internal evaluation was directed at obtaining opinions from students and staff concerning the value of training and suggestions for improving the program. These data were collected, tabulated, and evaluated. The follow-up study concerned the occupational placement of graduates from the school and evaluated this in terms of training received.

IV. The study is limited to evaluating the Technical Training Center in terms of the dropouts, recruitment and costs of training as related to the internal and follow-up studies.

Definitions:

ADULT. Any person who has passed beyond the age at which

compulsory school attendance laws apply.

ADULT EDUCATION PROGRAM. A sponsored program for adults by the agencies cited in the delimitations of the problem.

BUREAU OF APPRENTICESHIP TRAINING (BAT). A division of the United States Department of Labor that is responsible for maintenance of minimum standards in government sponsored training and apprenticeship programs.

DROPOUT. Any trainee who fails to complete the requirements for graduation from a training program.

MANPOWER DEVELOPMENT AND TRAINING ACT (MDTA). A Bill passed by the 87th Congress of 1962 which authorizes and subsidizes approved training programs in an effort to reduce unemployment.

MICHIGAN EMPLOYMENT SECURITIES COMMISSION (MESC). A division of the United States Department of Labor which is responsible for the placement or compensation of unemployed workers. Since the enactment of MDTA, it is responsible for discovering the need for training programs and in turn authorizing and screening applicants for them.

ON-JOB-TRAINING (OJT). This is the title of a particular type of training program where the trainee spends time on the job learning the specific skills peculiar to that job. It is a formalized program under the Manpower Development and Training Act.

OFFICE OF MANPOWER, AUTOMATION, AND TRAINING (OMAT). A division of the United States Department of Labor responsible for certain phases of the Manpower Development and Training Act.

PARTICIPANT. Any individual who was enrolled in the adult education program described. At various times, throughout the study, he may be referred to as enrollee, student, or trainee to avoid monotonous repetition.

SEMISKILLED WORKER. Semiskilled workers are those who have ordinarily received only on-the-job training. Usually they are told what to do and how to do it and their work is closely supervised.

SKILLED WORKER. Those workers in skilled occupations who have received extensive training. Skills may have been acquired through apprenticeship or other formalized training.

TECHNICIAN. A worker whose job requires the use and knowledge of scientific and mathematical theory with specialized training in some aspect of technology or science. As a rule, they generally work directly with scientists and engineers.

TRAINING PROGRAM. Any of the three classes conducted at the UAW Local 412 - Technical Training Center. The classes include clay modeling, graphic illustrating and product detailing.

UNITED AUTOMOBILE WORKERS (UAW). A labor union whose membership includes workers from the automotive industry and related fields. The UAW is affiliated with the Congress of Industrial Organizations, (CIO).

UNDER-EMPLOYED. The description of a worker who is not using the skills he already possesses or the skills he is capable of possessing at his present employment.

UNSKILLED WORKER. Laborers who work in manual occupations which generally require no special training or background. Frequently their jobs involve handling and moving materials, sometimes requiring heavy physical work.

ENTRY POSITION. A position for which an applicant must find employment on some other basis than prior work experience or training. "Although most of the applicants are young people who lack significant work experience or who have not reached occupational maturity, this group also includes experienced workers who are barred from their former occupations because of technological developments, economic changes, physical handicaps, age, or a disuse of skills."

Hypothesis Tested:

I. That there exists a direct, positive relation between the training received and the adult education program at the UAW Local 412 - Technical Training Center and the kind of work secured by graduates following successful completion of the training program.

Procedure and Methodology:

I. A search and review of the literature was completed.

II. A study of the history and related events was made to understand the rationale for establishing the UAW Local 412 - Technical Training Center.

III. A study was undertaken that describes the factors that account for the adoption of the curriculum for the program to be described.

IV. The program of instruction is described in detail and includes descriptions of the instructors, the curriculum and the administration.

V. The students are described in relation to the process used to select and screen them. Training and the demographic characteristics that they possess are fully described.

VI. An initial evaluation was conducted asking students and staff to report their opinions concerning the entire operation of the school. The results were tabulated and classified and later used as a basis for evaluation of the program.

VII. A follow-up study was made of the students three months after their graduation from the Technical Training Center. It was sought to determine if their present work employed any of the skills gained through training. A positive relation was considered to exist if graduates were working at jobs that required the use or knowledge of the skills they had obtained at the school.

VIII. The results of the initial evaluation and the follow-up study were summarized and interpreted. The implications resulting from these gathered data are reported in terms of recommendations and conclusions.

CHAPTER II

BACKGROUND INFORMATION

In order to fully understand the adult education program to be presented here, it is necessary to possess certain knowledge and background information before proceeding with the actual study. The training program was established through the combined efforts of many individuals working with several private and public organizations. When an awareness of the purpose and function of these organizations is held, the balance of the study becomes interesting and more meaningful. Here, too, a contemporary working concept of adult education is developed and applied.

It is the purpose of this section to introduce the single elements that, when combined, led to the formation of the training program. In describing the functions of the various agencies and relating them to adult education, it will be shown how the elements dove-tailed to culminate in what is presently known as the UAW Local 412 - Technical Training Center.

Adult education may be conceptualized as being an extension or continuation of the formal learning process beyond the age of compulsory school attendance. If, within this conceptual framework, it is used to continuously educate individuals to perform a useful role in our constantly

changing society, then its function is clearly established.

In the past, adult education programs have been supported by various community groups, conventionally sponsored by schools, churches, YMCA's and occasionally by a special interest group from within the community. In some cases, private companies or whole industries have worked cooperatively with public institutions and have sponsored special programs. It is the normal procedure to house such programs in a school, church or some other public building. Such is not the case for the UAW Local 412 - Technical Training Center. This adult education program is sponsored by a local labor union and is housed in an unused union hall.

The Unemployment Problem:

In recent years America has been plagued with both chronic and acute unemployment problems. Its causes are many and varied and no one solution has been able to resolve the entire problem. Some workers are unemployed because the market for their skill is being decreased or eliminated, while others have never possessed a saleable skill. The problem threatens to worsen because jobs calling for the work of the unskilled are rapidly being eliminated. President Johnson noted this in his report to Congress in 1964:

> Manpower needs are shrinking in declining industries and in those where new machines and methods are replacing workers faster than new jobs are being created by new demand. . . .
>
> Occupationally, unskilled jobs are declining in importance. Demand is ex-

> panding most in professional and technical, clerical, and service occupations. Requirements for education and training for employment are increasing steadily. (20:2-3)

A type of unemployment that has recently drawn widespread attention is that caused by rapid technological change -- automation -- and its impact is felt mostly by the unskilled worker whose work tasks are usually repetitive or require great strength and endurance. The elimination of an individual's job by automation is termed "phasing out" by industry. The semi-skilled and skilled worker have been little affected by automation at this time. A paradox seemes to be reached, for while the work of the unskilled is being eliminated, their number already account for the great numbers of unemployed. The future does not appear bright. Some experts predict that there presently exists enough skilled workers to satisfy demands well into the 1970's.

> Reflecting the growth in the service components of the economy and in the production of relatively complex technical products, the fastest growing occupations during the next decade will be the professional and technical positions -- especially engineers, scientists, and technicians -- and the white-collar clerical and sales occupations. Among manual occupations, only the most skilled groups (craftsmen, foremen, etc.) will expand at a rate at least as rapid as total employment. The number of semi-skilled jobs is expected to increase at two-thirds the rate of growth of total employment, and the number of unskilled jobs will remain about the same, continuing their long-term relative decline. (23:21)

Thus, the prospects for the unskilled and semi-skilled, even in our expanding economy, are not very hopeful. It cannot be presumed that the unemployment problem faced by these individuals will be solved with the passage of time.

UAW Local 412:

UAW Local 412, Amalgamated Engineers, Technicians, and Associates (AETA), is a local labor union that represents most of the workers in the Engineering Division of the Chrysler Corporation of Detroit, Michigan. It is called an amalgamated local because it includes some of the salaried and all of the hourly paid workers within that division. Its members number approximately 4,000 in ninety-eight salaried and seventy-one hourly rated classifications. The members work at diversified jobs that range from relatively unskilled to the highly skilled.

Its prime function is to protect the rights of its members and to represent them in labor negotiations with the Chrysler Corporation. This local labor union has, in the past, accepted additional responsibility to its member by sponsoring adult education classes in blueprint reading, mechanical drawing and leadership and contract negotiation skills. Attention is directed to the sponsorship of the adult education classes because a relationship exists between them and the ensuing program that will be described.

The Manpower Development and Training Act (MDTA):

The Federal government has been cognizant of the problem

of unemployment that has plagued the nation for quite some time. At various intervals it has attempted solution by passing legislation or making public works projects available. In many instances it has relied upon adult education programs to alleviate the problem. In recent years Congress has passed many laws in an effort to relieve unemployment. The 87th Congress passed the Manpower Development and Training Act on March 15, 1962. This Act is pertinent to the program to be described and the background of its origin is outlined as follows:

> During the post-World War II period, the Secretary of Labor and a growing number of Congressmen and manpower experts have been disturbed by the increasing number of "hard core" jobless workers. Motivated by this concern over the number of those persons who were unemployed six months or more, Congressional committees held hearings on the unemployment problem.
>
> These hearings indicated that many persons were unemployed because their skills were no longer needed as a result of the introduction of new machines in our factories and offices, changes in manufacturing processes, the movement of industries from old established areas, and the decline in the importance of some industries and other circumstances. The experts who testified at the Congressional hearings noted that at the same time that many workers were unemployed, a considerable number of jobs remained unfilled in the very same labor market area, because workers with the necessary skills were not available. (28:1)

These hearings and the ensuing discussions prompted the passage of this law. The Bill has since been amended, broadening its scope and benefits, but basically providing funds

to organizations and individuals that engage in training or retraining workers. Its primary purpose is to relieve the unemployment problem by training workers in skills for which employment can be found. It can thus be seen that Congress recognized the critical need to train unskilled workers and upgrade others whose skills were becoming obsolete. Further, it assumed an obligation for this function by accepting responsibility and authorizing funds for this accomplishment.

Section 201 of the MDTA is especially pertinent, for it is here that on-the-job training is specifically mentioned, and it is from this that the Technical Training Center derives its sanction to operate.

> In carrying out the purposes of this Act, the Secretary of Labor shall determine the skill requirements of the economy, develop policies for the adequate occupational development and maximum utilization of the skills of the Nation's workers, promote and encourage the development of broad and diversified training programs, including on-the-job training, designed to qualify for employment the many persons who cannot reasonably be expected to secure full-time employment without such training, and to equip the Nation's workers with the new and improved skills that are or will be required. (24: 2-3).

The United States Department of Labor has the ultimate responsibility of guaranteeing that on-the-job training programs meet rigid standards of quality. A division within this department, the Bureau of Apprenticeship Training (BAT), is delegated the responsibility of assuring that appropriate training standards are maintained.

The Bureau of Apprenticeship Training was responsible for maintaining these specific standards in on-the-job training programs. Since the Technical Training Center was authorized under these sections of MDTA, it consequently was under the jurisdiction of BAT.

Under the conditions of MDTA, both the Secretary of Labor and the Secretary of Health, Education, and Welfare are required to submit a yearly report to Congress. In the 1963 Labor Report, John F. Kennedy, then President of the United States, said in reference to our manpower and occupational needs for tomorrow:

> Growth and change in manpower requirements vary by industry, occupation, and area, as do changes wrought by technology and by other powerful forces. Our manpower resources also grow irregularly: Skills, age distribution, and other characteristics are in constant flux. Public policies must encourage and facilitate the adjustments made necessary by the ever-changing pattern of job requirements. Private industry and trade unions must also exercise initiative and responsibility to adapt jobs and employment practices to make the fullest use of manpower resources, and to do so in a humane and efficient manner. (26:XI-XII)

It will be noted here that the President of the United States has charged labor and industry with a responsibility too, for help in relieving unemployment problems. In his 1963 report, Anthony Celebrezze, Secretary of Health, Education, and Welfare, in pointing out the need for occupational training said:

> The MDTA takes several significant steps in this direction. It provides for the development of national manpower policy. It establishes a pattern of resources for the training and retraining of both the unemployed and under-employed. Moreover, the act also provides for training in any occupation for which demands exist or shall exist as compared to earlier federally-supported programs for specific occupational categories. One of the act's most important contributions is an expanding program of labor market data as the basis for planning future occupational training. (18:1)

The Secretary, then, has pointed out how MDTA fulfillment will relieve the manpower problem facing the nation. It is significant that he notes the broad terms of this Act when contrasted to previous lesgislation. Consequently, MDTA, with all its implications and ramifications, played a very important part in the formation of the Technical Training Center.

The Detroit Metropolitan Area Study:

A research study that played an important role in the establishment of the Technical Training Center was that of Dr. Melvin Kavieff. Working under a grant from the National Defense Education Act, and in cooperation with the Detroit Board of Education, he sought out the need for technicians in the surrounding area. His study, The Need for Technicians in the Automotive Manufacturing Industry in the Detroit Metropolitan Area, was comprehensive and disclosed a shortage of workers at this skill level. Using conservative figures, based on regular retirement and normal industrial growth,

the report estimated the present and future need for technical workers in the automotive industry. It was judged that 6,193 technicians could be absorbed annually in the Detroit labor market.

Later it was estimated that the public schools could only be depended upon to train 2,063 technicians annually. Other educational institutions would have to train the balance of 4,130 technicians. It was expected that the traditional sources -- adult evening classes, community colleges, vocational schools and colleges and universities -- would be required to train the additional workers. Some of the larger corporations which conducted on-the-job training programs and correspondence schools could also be expected to relieve the shortage. The study also showed that the basic educational standard for technicians varied but the minimum acceptable standard was high school graduation or its equivalent. Many jobs required technical or vocational school diplomas, some expected two years of college attendance and a few required engineering degrees from accredited institutions.

Subsequently it will be shown how this study of technicians in the Detroit metropolitan area assisted in founding the Technical Training Center. Its revelation of the technician shortage, and disclosure of minimum educational levels, aided materially in instituting the program and setting selection standards for trainees.

CHAPTER III

HISTORY OF THE PROGRAM

UAW Local 412, the labor union representing the clerks in the Engineering Department of the Chrysler Corporation, began searching for ways to alleviate the imminent unemployment problem facing its members. In its search for a solution many ideas were presented, investigated thoroughly, and later rejected as being impractical or impossible to achieve. It must be recalled that this union is an amalgamated local and consequently is in a position to observe first-hand the supply and demand pattern for workers in many occupational areas. A paradox was reached, it seemed, that while some workers were to be relieved of their jobs by automation, other jobs were left unfilled because of a scarcity of skilled workers. The engineering clerks who were being phased out of their jobs stood every chance of finding employment in other unskilled job categories.

The leadership of UAW Local 412 formed a committee to see if there were any steps that could be taken to remedy this problem for its members. The idea evolved that if unskilled workers could be retrained in skills necessary to do the work in occupations presently experiencing shortages, perhaps both the problem of anticipated unemployment and unfilled jobs could be resolved. The union had experienced some success in sponsoring training programs in the past when it had

offered courses in blueprint reading, leadership training and contract negotiations. In these courses the union had set up a program and furnished the instructor and the facility. The past success of these courses led the committee to believe that programs of this nature could be adapted to retrain the engineering clerks. The first step was to conduct an exacting survey within the Engineering Division of the Chrysler Corporation. The investigation disclosed that definite shortages of workers existed in some of the skilled occupational areas. The evidence confirmed earlier indications and it was then decided to broaden the scope of this survey by determining if such shortages existed outside the Chrysler Corporation.

The Detroit Metropolitan Study:

In his study, The Need for Technicians in The Automotive Manufacturing Industry in the Detroit Metropolitan Area, Dr. Kavieff definitely confirmed a shortage of skilled technical workers in the Detroit metropolitan area. Further, it disclosed the educational and training levels desired by industry for technicians. The conventional training sources were discussed and it was determined that the public schools could only be expected to furnish one-third of the annual requirement for technicians. Additional sponsors for such training were needed to supply the annual requirement of 6,163 technically-trained workers in the Detroit area.

This report confirmed the early indications as viewed by the UAW Local 412 committee that there was a widespread

shortage of skilled workers. Further, it substantiated that there was even a shortage of training facilities, for the public schools could only be expected to supply 2,063 workers annually.

The Michigan Employment Security Commission:

It was decided by the committee to consult with the MESC, an affiliate of the United States Employment Service, to confirm the findings of Kavieff's report. The MESC verified what Kavieff had found. The need for trained technical and skilled workers was expected to grow and the demand for unskilled workers would continue to diminish. Their research revealed the following statistics:

TABLE I. CHANGE IN EMPLOYMENT, 1960-1970 (By Per Cent)*

Occupation	Change, 1960-1970 (Per Cent)
Professional and technical workers	+41%
Proprietors and managers	+24
Clerical and Sales	+27
Skilled workers	+24
Semi-skilled	+18
Service workers	+25
Unskilled workers	0
Farmers and farm workers	-17

*Source: Michigan Employment Security Commission. Manpower In Michigan, (Detroit: Michigan Employment Security Commission, 1962).

These figures provide a basis for predicting future occupational needs. The fact that 41 per cent more professional and technical workers and 24 per cent additional skilled workers will be needed by 1970 is important. The demand for unskilled workers, it shows, will be no greater in the future than at the present time. This report, concerned about the future employment problem in Michigan, also suggests retraining programs as a solution for displaced workers. The MESC confirmed that skilled workers were in short supply by indicating they were unable to fill the great number of requests for workers from this category.

The accumulated evidence caused the committee from UAW Local 412 to weigh all the data supporting a proposed training school. Their first-hand observation within the engineering division at Chrysler Corporation, Kavieff's report about the shortage of skilled workers in the Detroit metropolitan area, and the evidence supplied by the MESC bore out the contention that a retraining program would alleviate the problem of displaced workers. After much deliberation it was decided to propose a training program to educate workers in the fields of Clay Modeling, Graphic Illustrating, and Product Detailing.

Many factors, however, had to be considered and investigated before an undertaking this large and encompassing could be embarked upon. First, it would have to be approved by the local union membership and later sanctioned by the

UAW International. To be successful it would have to receive financial support and in time accreditation or recognition by governmental, industrial and educational organizations.

If the idea for a training program for displaced workers was accepted by members of UAW Local 412 further support for it could be sought elsewhere. In the course of investigation committee members and officers of the union had become strong supporters for the training program. It was felt that their influence with members would, in turn, gain support for the plan. The engineering clerks, those who were to be displaced, naturally were in favor of the proposal.

Workers had to be convinced that retraining would not adversely affect them and cause them to lose their jobs. This was a difficult indoctrination process and was only accomplished in subtle fashion and over a long period of time. Initially a word-of-mouth campaign was waged by committee members and officers of the local among the members. It was hoped that they could generate enough support that would eventually lead to full acceptance. Announcements concerning the work of the committee were made at the regular monthly meetings and finally news releases appeared in the Local's monthly newspaper.

By this time the proposal for a training program was being widely discussed by members at work and at regular monthly meetings. It was then that the Union's executive board authorized the expenditure of up to $8,000 to conduct the

training program for workers who would soon be displaced. This amount represented more than ten per cent of the Local's annual budget. However, the membership accepted the obligation with no serious opposition.

The local support received for the proposition prompted the committee to seek approval and backing from the UAW International Union. Although local unions function almost autonomously, major decisions are usually submitted to the parent organization for its sanction. In this case the UAW International not only sanctioned the action but promised to render assistance where it could. It had long been cognizant of the unemployment problems caused by technological change and automation, and had developed a national policy to relieve the situation. The UAW International had gone on record as advocating a shorter work-week, doubling the rate for overtime work, and promoting early retirement of older workers. All were policies designed to create a need for workers and in turn alleviate unemployment.

The UAW International, being headquartered in Detroit, had recently placed a member of its staff on the local commission that suggested and approved programs under MDTA. It was a new Act and the International union suggested that the Local seek approval and funds to operate its program from this agency.

The committee from UAW Local 412 submitted its proposal for approval in September of 1963. The application was under the on-the-job training of the MDTA, but actually did not

meet these criteria fully because it was not sponsored by an employer group. The plan is what has come to be known as a "coupled" program where the actual on-the-job phase of the training is expected to occur when the trainee has gained an entry position in the field of training.

Since the proposal asked for the program to be carried out in its own facility, the labor union had to obtain a statement from a State Vocational Education official saying that neither funds nor a training facility were available at that time. This requirement was fulfilled in a letter from the Vocational Director of the Michigan Department of Public Instruction. A statement was also required from a prominent local employer attesting to the fact that a shortage of workers existed in the proposed areas of training, and that students from such a program would be given due consideration in job placement upon graduation. A letter from the Chrysler Corporation fulfilled this obligation. When these criteria were met, a formal proposal for acceptance was submitted to the BAT. In November of 1963, the approved proposal was returned to UAW Local 412 in which it was granted an operating budget of $16,231.00. More exacting and detailed plans needed to be formulated, and the first classes were not scheduled to betin until January, 1964.

CHAPTER IV

THE UAW LOCAL 412 TECHNICAL TRAINING CENTER

A grant of $16,241.00, in addition to the $8,000 provided by UAW Local 412, was allocated for the training program and plans were laid for obtaining a training facility and initiating the program. An unused union hall was furnished by the UAW International Union for use as a school. Volunteers from the local and International unions offered their services in the renovation of the building. The local union used its funds to purchase drawing tables, tools, and equipment and various other supplies. The Chrysler Corporation contributed three heavy-duty clay modeling tables. All other equipment was purchased, donated, or built on the premises by union members.

Although the enrollment of the school was relatively small, there still remained the many administrative functions that must be given careful consideration regardless of size. The administrative board attempted to establish clear-cut policies to assure successful operation of the school. The actual enrollment of students in the program was not the function of the Technical Training Center. Although it accepted applications and referred students, it was the responsibility of MESC to do the actual enrollment. The school accepted only those students who had gone through the screening process and were enrolled by MESC.

The thorough screening process offered some assurance that students would make satisfactory progress. However, provision was made for a grading system that allowed for individual differences while still maintaining minimum standards. When a student failed to produce at a satisfactory level he was placed on a probationary period until his work returned to a satisfactory level. If a student did not return to this level, notification was sent to BAT with the recommendation that the student be dropped from training. Quarterly tests were administered and it was the prerogative of the administrative board to conduct achievement tests at their discretion.

The course work was designed according to time-modules spent in various skill areas and therefore very accurate attendance records were maintained. Each absence and tardiness was recorded and monthly attendance records were sent to BAT. Absentees were allowed to make up work they had missed by making arrangements witn the instructor at his discretion and convenience.

A permanent file was maintained for each student at the training center. It is intended to maintain these files permanently so that the records will always be available to employers who wish to use them in placing or upgrading graduates on a job.

A formal counseling service was available to trainees during his training at MESC. Moreover an informal counseling

service was offered to students at their convenience at the school.

> Trainees who were experiencing difficulty were encouraged to discuss their problems with the Instructor and/or the School Director. Individual counseling is for the purpose of encouraging and assisting the trainee in his studies. (16:8)

The administrative board actively sought a faculty that would be able to fulfill the unique needs of trainees enrolled in the Technical Training Center. The committee had learned from past experience, with training programs that it had sponsored, that often individuals who were qualified to instruct had lost contact with the current practices within the industry. Consequently, trainees received instruction in obsolete skills and processes that they were unable to use profitably. In an effort to prevent this from occurring at the Technical Training Center, criteria for instructors included current work experience and skill in the subject area to be taught. Hopefully, they expected to find individuals who, in addition, possessed formal teaching experience. The men they found for instructors closely approached the established criteria.

The instructors all had a technical secondary educational background and each was thoroughly experienced in his field of teaching. It was felt by the administration that the involvement of the instructors in designing the facility and organizing the course of study had served to heighten their

interest in the program, resulting in a more meaningful experience for students.

Each of the areas of training had its own course of study which was developed in terms of the anticipated needs of industry. The instructors, board of administration, and MESC staff were involved in designing the course content. Each area was allotted 240 hours of instruction time which was broken down into specific training units of skill development.

The graduates from each of the courses were encouraged to keep a portfolio of the work they had completed at the school. It was anticipated that this representative work could be presented to prospective employers when seeking a position with them. The clay modelers, except in the case of the cooperatively built three-eighths scale model automobile, kept the models they had built.

CHAPTER V

THE PARTICIPANTS

Whenever a program of this nature is established it is extremely difficult to ascertain in advance the desireable characteristics a candidate should possess. While the original idea was fostered by a labor union in an effort to relieve the imminent unemployment of some of its members, the nature of the initial design had changed. Now it had not only a responsibility to its own members, but since it was receiving Federal support, it was obligated to the larger community. Through efforts of UAW Local 412 and MESC, an extensive recruitment drive was conducted. However, it must be remembered that since the program was being operated under the MDTA, the MESC had the ultimate responsibility for placing trainees in the program. The selection process included:

> (a) The Secretary of Labor shall provide a program for testing, counseling, and selecting for occupational training under this Act those unemployed or underemployed persons who cannot reasonably be expected to secure appropriate full-time employment without training. . . .
>
> (b) The Secretary of Labor shall determine the occupational training needs of referred persons, provide for their orderly selection and referral for training under this Act, and provide counseling and placement services to persons who have completed their training, as well as follow-up studies to determine

> whether the programs provided meet the occupational training needs of the persons referred. (24:4-5)

Applicants were attracted to the training program in several different ways. Recruitment took the form of a double-pronged attack carried out by both the MESC and the labor local. Each publicized and recruited for the program through the avenues and approaches with which they were most familiar. The total effort resulted in more than double the number of applicants who could be accommodated in the school.

Recruiting had actually occurred within the local during the time it was seeking approval from the membership for funds. Through this, many members had become interested in the program and were ready to apply as soon as the program was approved. However, an organized and more formal recruiting process was undertaken when the proposal was approved by the MDTA Commission.

An active campaign was outlined and posters were printed and distributed to the engineering divisions within the Chrysler Corporation and the Ford Motor Company. The posters were designed to arouse interest by posing questions concerning the reader's present position in the job hierarchy and suggested further training at the Technical Training Center might enhance his present position. The class offerings were described, necessary qualifications were stated, and directions for application were given.

Recruiting done by the MESC was accomplished in a somewhat different manner through channels that already existed

within this organization. It is standardized procedure, whenever new programs are announced, to relay this information to all branch offices and to every vocational counselor. In turn, it becomes the responsibility of individuals within the agency to notify likely prospects whom they encounter in the course of their regular work of the likelihood of such a training program. If the prospect shows an interest, he is asked to fill out a preliminary application requesting such training. These forms are channeled to a central clearing office in the MESC where they await further processing.

The portion of the questionnaire submitted to students designed to gather demographic characteristics contained a question concerning recruitment. The respondents indicated through which agency, MESC or Union, by which they were notified about the program of offerings. The "other" category refers to recruitment by means of receiving information about the program from a friend or relative.

TABLE II. RECRUITMENT SOURCE

Recruiting Agency	Clay Modeling		Graphic Illust.		Product Detail.		Combined Totals	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
MESC	0	00.0	4	21.1	7	43.8	11	20.0
Union	19	95.0	12	63.2	8	50.0	39	70.9
Other	1	5.0	3	15.8	1	6.3	5	9.1

The recruiting efforts of these two organizations resulted in approximately 150 applications being received.

Since classes were limited to a maximum of 66 students, a screening process had to be devised to select only the most promishing of the candidates.

Selective Criteria. In an effort to assure that maximum benefits would be derived by trainees in the program, certain selective criteria were developed. These criteria were cooperatively established by the MESC and the Union. They are described in a special bulletin published by the UAW and reads in part as follows:

> Applicants must be willing and able to adapt themselves to training in one of these three engineering trades. They should have a high school or equivalent education, or experience on a related job with some knowledge of blueprint reading. They may be able to qualify from any of the following employment categories:
>
> 1. Presently employed but due to be displaced by automation.
>
> 2. Presently employed but in a non-skilled or lower skilled job.
>
> 3. Presently unemployed due to a lack of technical skills.
>
> The Michigan Employment Security Commission will conduct aptitude testing and counseling to determine an applicant's fitness for this specialized training. Enrollment forms may be secured through your Local Union no later than November 1, 1963. Applicants who are accepted for testing and counseling will be notified of the time and place. The testing, counseling and training will involve no time lost from your regular job. (17)

The MESC sent a letter to all those applicants that it had recruited and those who had been referred to it by the Union whom it was decided had met the initial criteria. The letter notified candidates of a testing and interview schedule and further noted that those selected for training would begin on or about January 6, 1964.

A screening process was devised that consisted of aptitude testing, interviewing by a vocational counselor, and final selection by a screening committee. The testing portion involved the use of the General Aptitude Test Battery (GATB), a standardized test used by the MESC. In this instance only the following portions of the test battery were used:

Test G --	Intelligence factor	(100)
Test S --	Spatial apptitude factor	(100)
Test P --	Form perception factor	(90)
Test F --	Finger dexterity factor	(80)

Interviews. The personal interviews were conducted by vocational counselors from the MESC. The counselors used special criteria forms that had been developed within the local agency as guides for interviewing candidates. The applicants were informed about the employment outlook, desireable skills, and working conditions on the job.

The selectees were a representative sample of a cross-section of citizens from the Detroit metropolitan area. They included both sexes, individuals from minority groups, and union and non-union members. The higher percentage of them were working in the skilled and semi-skilled categories

of employment, with the unskilled area not being represented at all. A number of them came from jobs classified as clerical with only a few from the service occupations. Among the occupations represented were janitors, clerks, production workers, mol-makers, draftsmen, etc. These demographic characteristics appear statistically in Table III.

The age figures also prove to be of interest. Only nine of the trainees fall within the 19-21 age bracket and only one was in the 45-plus age category. The greatest number of the trainees, approximately 82 per cent, fall in the 22-44 age brackets and, of this group, about 46 per cent of them were between 22 and 34 years of age while the remaining number were in the 35 to 44 age category. The apparently high maturity level of the trainees becomes a factor when the program is evaluated in terms of placement on training-related jobs.

The "grade level achieved" may appear rather high considering that this is a program of retraining. However, it must be recalled that the selective criteria asked that the selectees possess a high school diploma or its equivalent to be enrolled in this program. It should be noted that seven of the trainees had undergone formal educational training beyond their high school years.

The category, "Training beyond high school" has little significance at this time other than indicating that 72.7 per cent of the trainees had enrolled in training beyond that level. The question was asked to obtain an indication of the

TABLE III. DEMOGRAPHIC CHARACTERISTICS OF 55 TECHNICAL TRAINING CENTER STUDENTS

Characteristics	Clay Modeling No.	Clay Modeling Per Cent	Graphic Illust. No.	Graphic Illust. Per Cent	Product Detail. No.	Product Detail. Per Cent	Combined Totals Number	Combined Totals Per Cent
Sex:								
Male	20	100.0	17	89.5	16	100.0	53	96.4
Female	0	00.0	2	10.5	0	00.0	2	3.6
Age:								
19-21	3	15.0	1	5.3	5	31.3	9	16.4
22-34	12	60.0	9	47.4	4	25.0	25	45.5
35-44	5	25.0	9	47.4	6	37.5	20	36.4
45-plus	0	00.0	0	00.0	1	6.3	1	1.8
Marital Status:								
Single	3	15.0	5	26.3	6	37.5	14	25.5
Married	17	85.0	13	68.4	10	62.5	40	72.7
Head of Household:	17	85.0	13	68.4	10	62.5	40	72.7
Grade Level Achieved:								
9-11	1	5.0	4	21.1	3	18.8	8	14.5
12	17	85.0	13	68.4	10	62.5	40	72.7
Beyond 12	1	5.0	0	00.0	2	12.5	3	5.5
2 yrs. of college	1	5.5	2	10.5	1	6.3	4	7.3
Training Beyond High Sch.:	12	60.0	14	73.7	14	87.5	40	72.7
Currently Employed:	20	100.0	17	89.5	15	93.8	52	94.5

TABLE III. (Continued)

Characteristics	Clay Modeling No.	Clay Modeling Per Cent	Graphic Illust. No.	Graphic Illust. Per Cent	Product Detail. No.	Product Detail. Per Cent	Combined Totals Number/Per Cent	
*Type of Employment:								
Clerical and sales	4	20.0	4	21.0	3	18.8	11	20.0
Service	3	15.0	0	00.0	0	00.0	3	5.5
Skilled	10	50.0	12	63.2	8	50.0	30	54.5
Semi-skilled	3	15.0	3	15.8	5	31.2	11	20.0
Unskilled	0	00.0	0	00.0	0	00.0	0	00.0
Employed at start of program:	19	95.0	15	73.9	14	87.5	48	87.2
Job change while in training:	2	10.0	7	36.8	6	37.5	15	27.5

* These job categories are based on classifications as they appear in the Dictionary of Occupational Titles. (21)

attitude of students toward education and if there had been a previous interest in adult education programs.

At the time of the survey (October of 1964), 94.5 per cent of the trainees were employed. At the start of the program (January, 1964), 87.25 per cent were employed. A net change of 7.3 per cent was registered. This change, however, is not significant. Greater significance may be attached to the series of statistics related to "Job change while in training" which showed 27.5 per cent of the trainees undergoing some sort of job change while engaged in the training program.

CHAPTER VI

INITIAL EVALUATION OF THE PROGRAM

Through the use of two different evaluative instruments the merits of the program, the facility and the administration are rated. A later analysis of the program is made in terms of the number of drop-outs and the cost of the operation.

The Evaluative Instruments. The evaluative instruments were designed with the cooperation and assistance of the administrative board of the Technical Training Center along with staff members from the Bureau of Educational Research, Michigan State University. The first instrument asked the students to rate various features of the program, criticize aspects they found deficient and offer suggestions for improvement. The questions were generally framed in such a manner to elicit a channeled, or limited, response. However, if the presupposed answer was found too restrictive or inappropriate, a category for "other" or "comment" was provided for the respondent to elaborate on his answer.

The evaluative instrument for the staff was designed in the same manner and was co-extensive as much as possible so comparisons could be drawn. It must, however, be remembered that the nature of the two reporting groups precludes the use of the same type of questions.

Method of Procedure. Through the cooperative efforts of the school's administrative board, time was allowed to be taken from classes on two different occasions for the researcher to conduct the survey. Each group was confronted personally and the reason for the study was explained, questions were answered and finally students were requested to complete the questions contained in the evaluative instrument. The respondents were assured that anonymity would be retained and questions should be answered freely and honestly.

The instructor of the class, or the director of the school, accepted the responsibility for getting instruments to absentee students. Self-addressed envelopes were furnished so the completed returns could be mailed to the researcher. The director of the school and the instructor from each class were also requested to fill out a questionnaire in the same manner. Through the use of this system, a 100 per cent return was received from the 55 students and four staff members.

Program Evaluation by the Students: When all the returns were received they were assigned code numbers according to the area of training, the sex of the student and his alphabetical rank within the particular class. Following this initial procedure, the data were transferred to IBM cards which were then processed by computer. From the computer, lists were prepared that contained tallies and percentages arranged by training class and later as a total group. At

that time an analysis of the data was made and is the subject of this section of the report.

Educational Level: It was the intent of this question to get a more exact determination of the educational level of the students than what was shown in the demographic characteristics. Although that information did include the grade level achieved by students in the program, it did not disclose whether they had graduated from high school. Table IV records the answers to this question.

TABLE IV. EDUCATIONAL LEVEL

Number of students and Class in which enrolled		High School Graduate Yes	No
Clay Modeling	(20)	19	1
Graphic Illustrating	(19)	16	3
Product Detailing	(16)	12	4
Totals	(55)	47	8

It is seen that the educational level is quite high, and that only eight students failed to graduate from high school.

The Student Selection Process. This question was designed to elicit answers from students concerning their feelings toward the student selection process. It was anticipated that since they had gone through such a rigorous procedure of testing and interviewing, that strong feelings about the procedure may have developed. Such was not the case. Of the 54 respondents who replied, 48 ranked the criterion in the "excellent" and "good" categories, while only six said it was

"fair." There were not selections in the "poor" category and none of the respondents chose to made comments.

TABLE V. THE SELECTION PROCESS

Number of Students and Class in which enrolled		Excellent	Good	Fair	Poor	Comment
Clay Modeling	(20)	7	10	0	3	0
Graphic Illustrating	(19)	5	12	0	2	0
Product Detailing*	(16)	7	7	0	1	0
Totals	(55)	19	29	0	6	0

Perusal of the table reveals that there was no established pattern other than that a higher percentage of clay modeling students ranked the criterion in both the "excellent" and the "poor" categories than did the other two groups.

The Facility, Equipment and Supplies. These criteria were established so that the physical aspects of the training program could be evaluated. While direct questioning furnished much of the information included, various other sections of the study revealed information pertaining to this section of the evaluation. Wherever this has been the case, the data obtained from these sources are also recorded in this section.

These criteria were evaluated through direct questioning and the results appear in Table VI. It can be seen that the majority of the students felt the facility and the furnishings were adequate. However, the response pattern of

* One student failed to respond.

the clay modelers is worthy of notice. It shows that this group was dissatisfied with the criteria in question with twelve of them rating it as "fair" and three rating it as "poor." None of the respondents chose to comment at this time. However, in a subsequent section they did voice their criticism.

TABLE VI. THE FACILITY AND FURNISHINGS

Number of Students and Class in which Enrolled		Excel-lent	Good	Fair	Poor	Com-ment
Clay Modeling	(20)	1	4	3	12	0
Graphic Illustrating	(19)	11	8	0	0	0
Product Detailing	(16)	10	6	0	0	0
Totals	(55)	22	18	3	12	0

In the Suggestions for Improving the Operation section, 17 clay modelers noted that there was a shortage of equipment, ten said the building was inadequate, and one noted that more tables were needed.

Supplies. This section deals with the evaluation of both the quality and quantity of supplies furnished to the students in the program. An appraisal of how they considered the quality of supplies was obtained by a separate question pertaining to the criterion. These results are shown in Table VII.

The clay modeling students have again ranked the criterion much lower than the other two groups. It is not possible to pinpoint the reason for this ranking from the data, as none of the respondents chose to comment at this time.

TABLE VII. QUALITY OF SUPPLIES

Number of Students and Class in which Enrolled		Excellent	Good	Fair	Poor	Comment
Clay Modeling	(20)	1	5	2	12	0
Graphic Illustrating	(19)	9	10	0	0	0
Product Detailing	(16)	12	4	0	0	0
Totals	(55)	22	19	2	12	0

Some insight is gained about the amount of supplies received from the Suggestions for Improving the Operation section. Here seven clay modeling students and two from each of the other two groups indicated that more supplies were needed.

Student Attitude Toward Training. The students' attitude toward the program was measured through questions designed to elicit responses that were indicative of their feelings toward the training received, the time and effort expended, the difficulties that had been encountered, and the various aspects of training that they had found enjoyable. It was attempted through this question to obtain from students the recorded response of their feelings about the training they had undergone.

The data show that clay modelers ranked the criterion in the upper three areas of response, while those in graphic illustrating restricted their answers to the upper two echelons. The product detailers grouped their responses in the upper two categories but did include one "poor" and one "comment" selection. The comment was made by a student who said

he would like reserve judgment until after placement on a training related job.

TABLE VIII. TRAINING RECEIVED

Number of Students and Class in which Enrolled		Excellent	Good	Fair	Poor	Comment
Clay Modeling	(20)	6	11	3	0	0
Graphic Illustrating	(19)	2	17	0	0	0
Product Detailing	(16)	7	7	0	1	1
Totals	(55)	15	35	3	1	1

Time and Effort Expended. It was attempted to find out if any respondents were disappointed with the amount of time and effort they had expended for the training. Only one respondent failed to answer this question in the affirmative.

TABLE IX. VALUE OF TIME AND EFFORT EXPENDED

Number of Students and Class in which Enrolled		Of Value	Of No Value	Comment
Clay Modeling	(20)	20	0	0
Graphic Illustrating	(19)	19	0	0
Product Detailing	(16)	15	1	0
Totals	(55)	54	1	0

Most Difficult Area of Training. An attempt was made to anticipate the various types of response by providing a checklist for the respondents' choice. The categorical response "other" was included to obtain answers that were not included

among the pre-supposed responses. The tabulation of the responses is shown in Table X.

TABLE X. TRAINEES' MOST DIFFICULT AREA OF TRAINING

Evaluative Criteria	Clay Mod.	Graph. Illus.	Prod. Det.	Totals
Amount of work assigned.	0	0	0	0
Kind of work assigned.	2	0	1	3
Number of hours required.	1	0	1	2
Time schedule.	5	3	4	12
Developing study habits.	2	6	3	11
Understanding instructor.	1	0	0	1
Amount of outside work.	0	0	1	1
Other	6*	8**	3***	17

The time schedule had the most responses with "Developing Study Habits" second. There were a total of 17 "other" replies and a great number of these referred to the fact that the school had been conducted in the summer months and to the time schedule in one manner or another. A total of five respondents chose to list the difficulties they had encountered as "none."

---

*Lack of equipment - summer school - None (2) - distance too great - learning new skills.

**Staying alert after a day's work - None (2) - not having a clear idea of the program - not enough time (2) - starting time too early - inadequate background - work is tedious.

***Not enough time - no summer school - none.

Area of Training Found Most Enjoyable. Responses attempted to indicate which aspects of the training had been most enjoyable to the trainees. Categorical responses were pre-supposed along with an area for "other" comments. The intention of the method of response was misinterpreted and many students used it as a checklist, choosing several areas in which to reply. Therefore, the total number of responses are much higher than the number of students replying.

TABLE XI. AREA OF TRAINING FOUND MOST ENJOYABLE BY THE TRAINEES

Evaluative Criteria	Clay Mod.	Graph. Illus.	Prod. Det.	Totals
Type of Work	14	9	13	36
The Instructor	3	4	5	12
Fellowship	3	4	5	12
Learning New Skills	17	16	7	40
Other (Comments)	2*	3**	1***	6

The most popular area of response was the "Type of Work" followed by "Learning New Skills." The replies in the section for comments did not develop a pattern, although many students chose this section to praise the program.

---

* Learning to create objects with my hands - all of it.

** Relearning forgotten skills - everything (2) - furthering my knowledge.

*** Discussions with the instructor.

The Instruction. The instruction involved in the program was evaluated by the use of several different criteria. The amount of individual help as well as the quality of the group lectures were included as direct questions. Students were also asked to rate the grading system and their individual instructor. An evaluation of a different type was obtained when students were asked to offer their suggestions for improving the instructional aspect of the program.

Data about individualized instruction was gained when a direct question was asked and again when it was contained as one of the categorical responses under the section regarding suggestions for improving the instruction. Information from the direct question is contained in Table XII.

TABLE XII. INDIVIDUALIZED INSTRUCTION

Amount of Individual Help Received	Clay Mod.	Graph. Illus.	Prod. Det.	Totals
More than enough	1	4	5	10
Enough	12	15	10	37
Less than enough	4	0	0	4
Too little	3	0	1	4
Other	0	0	0	0

It can be noted that 47 of the respondents ranked the criteria in the two most favorable categories. Only eight responses were found to be in the less favorable categories and seven of these were elicited from among the clay modeling students.

Group Lectures. Trainees were asked to reate the quality of this criterion directly and later they evaluated the number of group lectures they had received. The recording of their answers in reference to the quality of the lectures appears in Table XIII.

TABLE XIII. QUALITY OF THE GROUP LECTURES

Number of Students and Class in which Enrolled		Excellent	Good	Fair	Poor	Comment
Clay Modeling	(20)	7	4	7	2	0
Graphic Illustrating	(19)	5	12	1	0	1
Product Detailing	(16)	3	7	1	2	2
Totals	(55)	15	23	9	4	3

The responses to this question varied. Thirty-eight of the respondents ranked it in the upper two classifications. Seven clay modeling students rated it only "fair" while two others placed it in the "poor" category of response. One student enrolled in graphic illustrating felt the lectures were only "fair" and another commented by saying "The lectures are too few." One product detailing student ranked the criterion in the "fair" column while two others indicated it to be "poor." Two students from this same class said that no lectures were given. One noted that this was because of the "differences in knowledge among the students."

When the number of group lectures was evaluated in the "Suggestions for Improving the Instruction" section, 17 of the respondents felt the number should be increased while

none of them thought they should be reduced. The clay modelers again led with eight of their number suggesting that this criterion be increased. Four students in graphil illustrating and five in product detailing offered the same suggestion.

It is known that the grading system received very little emphasis in the operation of the program. The attention, rather, was on the acceptability of the work performed and of meeting the standards before the next project was assigned. Nevertheless, the question concerning the grading system was included to see if any of the students held strong feelings about the subject. The information is tabulated in Table XIV.

TABLE XIV. THE GRADING SYSTEM

Number of Students and Class in which Enrolled		Excellent	Good	Fair	Poor	Comment
Clay Modeling	(20)	3	16	1	0	0
Graphic Illustrating	(19)	5	14	0	0	0
Product Detailing	(16)	7	6	3	0	0
Totals	(55)	15	36	4	0	0

The data seem to substantiate the premise made. Students do not appear to have very many negative feelings toward the criterion. Fifty-one of the responses are in the upper categories with only four students rating it as low as the "fair" position. There is other evidence that the grading system was of little concern to the students. In not one other place throughout the study was the grading system mentioned.

Each individual instructor was evaluated by his own students on his ability to impart knowledge and skills in his particular subject area. This was accomplished by direct questioning. Later, under the "Suggestions for Improving the Instruction" section, a category was included that was entitled "Better Preparation," and students could further evaluate their instructor. The data obtained from the direct questioning are contained in Table XV.

TABLE XV. THE INSTRUCTOR RATINGS

Number of Students and Class in which Enrolled		Excellent	Good	Fair	Poor	Comment
Clay Modeling	(20)	7	8	5	0	0
Graphic Illustrating	(19)	13	6	0	0	0
Product Detailing	(16)	11	4	1	0	0
Totals	(55)	31	18	6	0	0

The pattern of response here was most high. The respondents ranked this criterion completely in the top three categories of choice. None of the graphic illustrating students ranked their instructor as low as "fair," and only one product detailing student made this his choice to rate his instructor. However, the response pattern is somewhat different for clay modelers where seven of them rated their instructor as "excellent," eight as "good," and five of them as only "fair." Five members from this same group say that there should be better preparation in the suggestions for instruction improvement. Only two other trainees, both graphic illustrating students made the same comment.

Suggestions for Improving the Instruction. Much of the data found through this method of evaluation were included in the appraisal of particular criterion as they appeared earlier throughout this section. Therefore, only responses referring to "assignments" and the "comments" will be discussed at this time although the balance of the data are recorded here.

TABLE XVI. SUGGESTIONS FOR IMPROVING THE INSTRUCTION

Criterion	Clay Mod.	Graphic Illust.	Product Detail.	Totals
More individual help	11	3	1	15
Less individual help	0	2	1	3
More lectures	8	4	5	17
Fewer lectures	0	0	0	0
More assignments	1	7	4	12
Fewer assignments	0	0	0	0
Better preparation	5	2	0	7
Other (comments)	2*	7**	5***	14

The data show that a total of twelve students felt the number of assignments should be increased. Seven of the graphic

---

* Fewer students in the class - lecture every night.

** Cover more material - have exhibits - more class discussion and blackboard work - greater depth of coverage in all areas; skills, technique, use of equipment - greater continuity - longer classes - better discipline - use models with strings to show projections.

*** More class discussions - different, more extensive assignments - no summer school - offer advanced courses - instruction was excellent.

illustrating students made this suggestion along with four product detailers. Only one clay modeling student reacted to this choice in the same manner.

The other comments are somewhat general in nature but do offer some suggestions that should be evaluated if future programs are to be offered. It is proposed that classes be smaller, greater use be made of aids and devices, the courses be longer and more comprehensive and more class discussions held.

The Administration. Students were asked to evaluate the training they had received in relation to the field of work in one question and later, they were asked to offer suggestions for improving the operation. Some of the replies in the latter category, however, were pertinent to evaluation of various other criteria and so were included with them in earlier sections.

Planning. Evaluation of the planning involved in the utilization of the facility, the implementation of the program and the availability of supplies and equipment was examined. Here it was shown that those enrolled in graphic illustrating and product detailing rated the criterion quite highly, with all of their responses falling within the favorable categories. The clay modeling students reacted to the criterion much differently. Although only one member of this group chose to comment that "The area was too small," twelve others ranked the criterion as "fair" and one rated it as "poor."

TABLE XVII. PLANNING

Number of Students and Class in which Enrolled		Excellent	Good	Fair	Poor	Comment
Clay Modeling	(20)	1	6	12	0	1
Graphic Illustrating	(19)	11	8	0	0	0
Product Detailing	(16)	9	7	0	0	0
Totals	(55)	21	21	12	1	1

Suggestions for Improving the Operation was the last question included in the initial evaluative instrument that was issued to students. It was intended to obtain information of an evaluative nature about the administration of the operation while providing a place for students to freely criticize the program. This information is shown in Table XVIII. From the information recorded in the table and the suggestions appearing under "comments" a rather complete picture of the operation, including its strengths and weaknesses, was obtained.

Since the school was located on the far east side of Detroit, it was felt that this would be of concern to some students. Apparently this was not as great a handicap as was supposed. Only six of the respondents felt strongly enough about it to note it in this evaluation.

The criterion, "hours of training" received attention from twelve of the respondents. All of them felt the hours of training should be increased, while none of them noted that the hours should be decreased.

TABLE XVIII. SUGGESTIONS FOR IMPROVING THE OPERATION

Criterion	Clay Mod.	Graphic Illust.	Prod. Det.	Totals
More equipment	17	0	1	18
More supplies	7	2	2	11
Better quality materials	2	1	0	3
Better building	10	0	0	10
Better location	2	4	0	6
Increase training hours	2	8	2	12
Decrease Training hours	0	0	0	0
Other (comments)	3*	4**	7***	14

The comments section shows some new insights. Only those comments that are pertinent here are given attention. It is noted that "summer school" appears to be an area of concern for some, while "indoctrination" and "special materials" concern only one or two.

Program Evaluation by the Staff. The four staff members of the Technical Training Center were asked to evaluate the training program in terms of the criteria as they appear in the evaluative instrument prepared especially for that purpose. The instructors, along with the director,

---

* More tables - no summer school (2).

** Brochure for indoctrination - specially prepared materials - exercise more discipline - excellent program.

*** Have a day school program - involve participation from industry - term too long - no summer school - more classes-offer advanced courses - more group lectures and discussions - enjoyed the training.

appraised the program and offered their suggestions for improving the variously different aspects of the entire operation.

Since this section of the evaluation contains the responses of only four individuals, the resulting data were not tallied and tabulated, but instead were treated non-quantitatively and are reported in that manner here. All were in agreement that the program of the Technical Training Center fulfilled the needs for which it was established. There was agreement, too, that some aspects of the program lent themselves more to the lecture method while others required more personal contact with the trainee. Faculities and equipment were rated as good.

Program Cost Analysis. One aspect of the evaluation was to analyze the costs involved in administration and operation. In the case of the Technical Training Center, it is a relatively uncomplicated task because the fiscal costs were not extensive. The expenditures were basically for remuneration of personnel and rental charges for the use of the facility and equipment.

The operation was conducted as an on-the-job training program and as such, funds were not needed to reimburse the trainees. The greater number of trainees were employed at jobs and earned regular weekly wages. Thus, they did not qualify for subsidization. Moreover, funds were not needed to reimburse employers since this was what has come to be

called a "coupled" program where the actual on-the-job part of the training occurs at a later date.

When the school terminated its initial program upon the graduation of its first class on October 10, 1964, there remained $1,504.20 in unexpended funds from the original MDTA grant of $16,241.00. Therefore, the total expenditure of MDTA funds amounted to $14,736.80. This figure was used to analyze the costs of various aspects of the training.

Cost per Student. During the training program, 71 trainees were involved in the operation. Some of these became drop-outs and some were replacements for drop-outs from the program. However, since only 55 students remained to graduate, the lower figure was used for computational purposes. Thus, the cost of training amounted to $267.94 per graduate.

Drop-Outs. Accounting for the number of selectees who begin but fail to complete a prescribed training course is another way of evaluating a training program. By definition, as used here, an individual who terminates his training early is termed a "drop-out" and is the subject of this portion of the research. This study will include all those students, who at one time or another, entered the program of the Technical Training Center.

Of a total of 71 students who entered training, 55 remained to graduate. The drop-outs amounted to 22.54 per cent. For comparative purposes, a United States Labor Department publication notes previous studies of similar programs:

TABLE XIX. UNDIFFERENTIATED DROP-OUT AND GRADUATE COMPARISONS

Trainees	Number	Percentage
Graduates:		
Product Detailing	16	22.54%
Graphic Illustrating	19	26.76
Clay Modeling	20	28.17
Drop-Outs:		
Product Detailing	11	15.49
Graphic Illustrating	2	2.82
Clay Modeling	3	4.23
Totals:	71	100.00%

> Less than one-quarter (23.8%) of those who were enrolled under the act in project sections which had ended by December 31, 1963, voluntarily left training or were terminated prior to completion of the course. This proportion excludes those who left training late in the course to take work related to the course of instruction who are considered to have reached their occupational training objective. (27:35)

The drop-out figure of 22.54 per cent, then, compares favorably with other programs of a similar nature. Many of the students in the Technical Training Center program terminated their training early for various reasons. For example, some trainees terminated their training to take a job in a related work field, others because conditions of their current employment prevented them from attending classes at night and some because the location of their job was changed.

When reasons such as these have caused an individual to drop out of training early, he is considered a "positively-oriented" drop-out. When less defensible reasons are given as a motive for dropping out of training early, the individual is considered a "negatively-oriented" drop-out.

When this differentiation is made between the kinds of drop-outs, the values of the statistics pertaining to this criterion change. These figures show that of the 22.54 per cent who dropped out of training, 14.09 per cent of them possessed "positively-oriented" reasons and only 8.45 per cent of them failed to finish because of "negatively-oriented" reasons.

The statistics also reveal additional evidence that aids in the evaluation of the Technical Training Center. They show that product detailing, which at one time or another had 27 students enrolled, graduated only 16. The attrition was 11, however six terminated their training for positively oriented reasons. Nineteen graphic illustrating students graduated from the class, having only two positively-oriented drop-outs. The clay modeling class lost only three of its students. Only one was a negatively-oriented drop-out and the other two terminated for positively-oriented reasons.

Since the training program of the Technical Training Center was of forty weeks duration and geared to provide skills to individuals in the upper job categories, its drop-out rate was favorable in terms of the national averages.

TABLE XX. DIFFERENTIATED DROP-OUT AND GRADUATE COMPARISONS

Trainees	Number	Percentage
Graduates:		
Product Detailing	16	22.54%
Graphic Illustrating	19	26.76
Clay Modeling	20	28.17
Positively-Oriented Drop-Outs:		
Product Detailing	6	8.45
Graphic Illustrating	2	2.82
Clay Modeling	2	2.82
Negatively-Oriented Drop-Outs:		
Product Detailing	5	7.04
Graphic Illustrating	0	0.00
Clay Modeling	1	1.41
Totals:	71	100.00

CHAPTER VII

THE FOLLOW-UP STUDY EVALUATION

A follow-up study was conducted in an effort to determine in what ways the training had been effective and in what ways it had proved to be ineffective. The evaluative criteria was based upon the relationship of the respondent's present employment to that of the training received, a change in his wage structure and an expressed evaluation of the training received. The most direct measurement is to determine if the graduate is employed in the area of training and to consider it as a positive or negative correlation. However, when this standard of evaluation is used, the lines of demarcation are quite rigid, with criteria having to be placed in one of two categories.

For example, the question often arises as to which category a respondent's reply shoudl be assigned who is only using "some" of the skills he had acquired in training. In other cases a graduate may have obtained a job in sales or advertising that does not directly require the use of the skill acquired in training but whose only qualification for that type of employment is his knowledge of the skill. In order to avoid this dilemma, the evaluative instrument endeavored to divide more finely the degree of use a graduate was making of his acquired skills.

The Evaluative Instrument. An instrument was designed to obtain information from graduates concerning what had happened to them occupationally since they had begun training. Through this instrument it was sought to determine: (1) if graduates from this program had undergone an occupational change, (2) if such a change was employment in a training-related occupation, (3) methods used in seeking and securing employment, and (4) if an up-to-date evaluation by graduates of the training they had received at the Technical Training Center.

Method of Procedure. It was initially planned to conduct the entire survey by mail. However, in later conferences with members of the school's administrative board, it was found that previous attempts at correspondence with graduates had encountered very little success. The researcher was advised to explore other avenues of approach in an effort to insure greater participation from respondents. A social hour was arranged at the school and each graduating group was invited to attend on separate evenings. A discussion period was conducted and those attending were asked to fill out the questionnaires. The former plan of using the mails to obtain the desired returns would be instituted for those individuals who failed to attend the get-together. It was agreed that greater attendance could be anticipated if the letters of invitation were sent over the signature of the instructor of the particular course.

On the first night of these meetings, January 18, 1965, the graduates of the graphic illustration class were invited to attend. From the graduating class of 19 students in this training area, 15 attended this meeting. The actual results obtained from the evaluated form are reported later. On January 19, 1965, the product detailing students were invited to attend. Of the 16 individuals who had graduated from this class, 11 were in attendance. On the third night, January 20, 1965, the clay modeling students attended a similar meeting. Of the 20 students who graduated from this class, seven attended.

For those students who did not attend these meetings, the evaluative instrument with its enclosures were mailed. Two days after the mailing, each correspondent was personally called on the telephone urging him to answer promptly. From this three-pronged approach, a high percentage of returns were received and the results appear in Table XXI.

TABLE XXI. PERCENTAGE OF FOLLOW-UP QUESTIONNAIRES RETURNED

Graduates		Number Returned	Per Cent of Class	Per Cent of Total
Clay Modelers	(20)	13	65.00%	23.64%
Graphic Illustrators	(19)	17	89.47	30.91
Product Detailers	(16)	15	93.75	27.27
Totals	(55)	45	---	81.82%

The tally and number of returns by class and total indicate that those enrolled in the product detailing class had the highest proportional returns with 93.75 per cent,

graphic illustrators returned 89.47 per cent, followed by clay modelers with 65 per cent. Forty-five returns were received from a possible total of 55, or 81.82 per cent return.

Data Indicated by the Evaluative Instrument. The data resulting from the evaluative study contains statistics relevant to employment, wages, and job stability of graduates. It also reflects the reasons stated for rejecting job offers in training-related fields and later it discloses the results of a final evaluation along with suggestions for improving the training program. For the sake of efficiency of space, those questions that simply require a "yes" or "no" answer were grouped together and appear in Table XXII.

TABLE XXII. FOLLOW-UP EVALUATIVE CRITERIA

Criterion	Clay Modeling		Graphic Illust.		Product Detail.		Combined Totals	
	Yes	No	Yes	No	Yes	No	Yes	No
Presently employed	12	1	16	1	14	1	42	3
Job from TTC training	1	11	4	11	3	11	8	33
Weekly wages increased	5	7	9	7	8	6	22	20
Increased wages because of TTC	1	4	4	5	2	6	7	15
Non-related job, sought employment	7	2	5	2	5	2	17	6
Would take additional training at TTC	13	0	17	0	14	1	44	1
Plan to take additional training	10	3	16	1	15	0	41	3

Employment. Table XXII indicates that all the respondents, with the exception of three, were employed at the time of the survey. Those who were unemployed included a construction worker whose work was seasonal, a clay modeling graduate whose employer had recently lost a military contract, and a housewife who was not seeking employment.

It is of interest to note that only eight of those who were working attributed their employment to the training they had received. This figure may be contrasted with those revealed in Table XXIII where an effort was made to determine if employment was in any way related to the training that had been received.

TABLE XXIII. RELATIONSHIP OF PRESENT EMPLOYMENT TO TRAINING RECEIVED

Respondents	Directly Related	Closely Related	Indirectly Related	Unrelated
Clay Modeling	2	1	1	9
Graphic Illustrating	0	5	5	7
Product Detailing	5	3	0	7
Totals	7	9	6	23

Table XXIII shows that 22 of the respondents were working at jobs which they felt were in some way related to the training program. It may also be noted that only seven respondents felt their work was "directly related" to the training they had received.

Wages. Questions pertaining to wages were asked in an effort to determine if this criterion might reflect success

of the training program. Respondents were asked if their wages had increased since they had begun training and, if their response was in the affirmative, if it could be attributed to the training. Table XXIV discloses an approximation of the amount in various categories.

TABLE XXIV. WEEKLY WAGE INCREASES

Respondent		$1-5	$6-10	$11-15	$16-20	More
Clay Modeling	(5)	4	1	0	0	0
Graphic Illustrating	(9)	7	0	0	0	2
Product Detailing	(8)	4	0	0	0	4
Totals	(22)	15	1	0	0	6

While 22 of the respondents had received wage increases, only seven of that number felt it was because of the training they had undergone. The weekly wage increases were predominantly in the $1-5 category. However, six respondents reported they had experienced an increase in wages of over $20 a week.

Job Changes. Those students who had changed jobs since their training had begun were asked how they had obtained their new employment. They were requested to respond in pre-arranged categories and space was provided for them to elaborate on their response if they cared to do so. Table XXV shows that, of the 20 respondents who had undergone a job change since the training began, five had been upgraded

without union help, and four had changed their position through newspaper advertising and employment offices. Three respondents said their course instructor had helped them, two had received aid from a friend or relative, and one attributed assistance to the Michigan Employment Service. It should also be noted that none of the respondents felt the UAW had assisted them in obtaining employment. Table XXV reveals the number of individuals from each training area that had undergone job changes.

TABLE XXV. METHOD OF PLACEMENT

Kind of Assistance	Clay Mod.	Graphic Illust.	Product Detail.	Totals
Union assistance	0	4	1	5
Upgraded - No union assistance	1	3*	1**	5
Aided by MESC	1	0	0	1
Friend or relative	0	0	2	2
Newspaper - Employment office	0	1	3	4
Aided by instructor	1	0	2	3
Aided by UAW	0	0	0	0
Other	0	0	0	0

Job Stability. Those respondents who had not undergone a job change were queried in regard to their present occupational status. They were asked to indicate by what means

* One temporarily.

** Twice

they had sought employment related to their field of training. These data are shown in Table XVI and, since some of the respondents used more than one approach in seeking employment, the figures reflect a total greater than the number of individuals responding.

TABLE XVI. AGENCIES FROM WHICH EMPLOYMENT WAS SOUGHT

Criterion	Clay Mod. (11)	Graphic Illust. (9)	Product Detail. (8)	Combined Totals (28)
Personnel Office - Pres. Employment	6	4	5	15
Personnel Office - Other Employment	3	6	4	13
Michigan Employment Service	3	2	3	8
Private Employment Agency	1	0	1	2
Other Methods	1	0	0	1
Totals	14	12	13	39

Data also reveal that respondents made a total of 73 attempts at being placed with 52 different employers or agencies. While the greater number of respondents made one or two attempts at placement with one or two different employers, one graphic illustrating student indicated he had applied over ten different times with five different employers or agencies.

Rejection of Employment. After having surveyed the demographic characteristics of the students selected for training and noting their relatively older age categories and great

number of family obligations, it was anticipated that some graduates would find it difficult to accept an entry position with its accompanying deterrents. For example, entry-level wage scales are low and an individual with family obligations may find it impossible to undergo a wage decrease no matter how skillful or how interested he is in the type of work. Therefore it was anticipated that these factors may have a bearing on whether a candidate accepted or rejected an offer of employment. The evaluation instrument was designed to find out this information and the results are recorded in Table XVII. In this category a respondent could select one or a combination of reasons that best described why he had rejected an offer of employment in his area of training.

TABLE XVII. REASONS FOR REJECTING JOB OFFER

Criterion	Clay Mod. (4)	Graphic Illust. (6)	Product Detail. (8)	Combined Totals (18)
Starting rate too low	2	6	4	12
New offer unattractive	0	1*	1	2
Present job improved	0	2	4	6
Future of present job more attractive	1	3	3	7
New job inconvenient	0	1	1	2
Other	0	0	0	0
Totals	3	13	13	29

* Acceptance would mean a drastic pay cut and loss of sixteen years' seniority.

The results disclose that 18 respondents rejected offers of employment in a training-related job and that "Starting rate too low" was the predominant reason for rejecting the offer. The fact that an individual's present job improved elicited six responses with the category of "Future of Present Job More Attractive" drawing seven responses. Two replies indicated the new job was unattractive for "other" reasons and two indicated it was "inconvenient" because of the hours of employment or the long distance to travel.

Evaluation of the Training. The graduates were again asked to evaluate the training they had received. It was felt that the respondents might rate the training differently according to whether they were working in a training-related job or not. Therefore the instrument was so devised to differentiate the responses of the two groups.

Most respondents regarded the training they had received quite highly, but those who had obtained new positions exercised a greater number of ratings in the "excellent" and "good" categories. The clay modelers maintained their relative position by rating the training lower than that of product detailers and graphic illustrators. A related question that was designed to determine attitudes toward further training was also asked. The respondents were queried as to whether they were taking or expected to take additional course work in night school classes or employer-sponsored programs. The figures showed that 41 of the 44 respondents answered affirmatively.

Suggestions for Improvement. The students were again asked to evaluate the program in terms of suggested improvements. It was felt that a three-month time lapse might elicit different responses. The students were cautioned to list only those improvements not previously mentioned. Among the suggestions for improvement were:

1. Building should be larger,
2. The training program should be longer,
3. More assignments, broader coverage, i.e., more grids and sections, should be made,
4. Greater cooperation with industry should be provided,
5. A liason official between companies and Union that would help place graduates should be provided,
6. More equipment and better air conditioning is needed,
7. The scope of training should be broadened,
8. Better cooperation with industry would create an active interest of prospective employers, and
9. The instructor should make a point of visiting each student rather than spending time only with those who seek help.

The Michigan Employment Security Commission. The follow-up study of the role of the MESC reveals that it made a great effort toward placing graduates of the Technical Training Center. In November of 1965, a month following graduation, a letter was prepared and sent out to selected prospective

employers by the Professional Division of the MESC. The employers were selected on the basis that they had previously registered with the MESC for workers possessing the skills that had been taught at the Center. The letter notified employers that candidates were available for job placement and included a description of the curriculum and noted it had been conducted under the auspices of UAW Local 412. Also included with the letter was a brief résumé of graduates available for placement containing their name, age, education, and paid work experience. The letter asked interested employers to contact the MESC for further information or to make arrangements for personal interviews. The letter was sent to a different group of employers for graduates of each training class. Table XVIII shows the number of prospective employers that were contacted, the number that responded, and the number of different candidates for which an interest was expressed.

TABLE XVIII. PROSPECTIVE EMPLOYER CONTACTS AND RESPONSES

Criteria	Clay Mod.	Graphic Illust.	Product Detail.	Combined Totals
Employers sent letters	188	193	312	693
Employers responding	3	1	24	29
Number of candidates	6	3	7	16
Number hired	1	0	0	1

The tabulations indicated that this method of placing candidates was not effective. (6)

CHAPTER VIII

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

There seems to be little need for the further justification for such training programs as offered by the UAW Local 412 Technical Training Center. The Federal government, after much research, has invested vast sums of money to train and upgrade workers in skills for which there is a demand. Purportedly there is a demand for workers in the Detroit area who possess the skills that were taught in this school. In fact this program had only received final approval after it had been determined that a need for the services of its graduates would exist. Kavieff's report, along with sanction by the MESC caused the program to be endorsed by the Manpower Development and Training Commission. Further, other programs such as that mentioned earlier have recently been approved by the Federal government. Evidence of this need is confirmed through the classified "help-wanted" advertising in the daily Detroit newspapers.

Further justification is supplied by Dr. John T. Smith, who, in a W. E. Upjohn Institute for Employment Research publication, says:

> The correct vocational education program for employed adults, therefore, would supply the training in skills and technology needed by society and the training would be offered in late afternoon and evening classes within commuting distance of all

> who are eligible to take it. Such classes must be designed for adults, and the teaching methods and other techniques used must be geared to adults experienced in their respective trades. (14:40)

Smith has recommended action that very closely approximates that taken by the administration of the Technical Training Center. His suggestion of late afternoon and evening classes, easy commuting distances, and teaching skills in current demand, are consistent with those of the Technical Training Center.

The examination of the data gathered in the study, the studies of needs in the area, verification by governmental authorities, examination of newspaper want-ads and, finally, substantiation by a labor authority show that this type of training was well founded. The program of the Technical Training Center was based upon justifications such as these and many of the suggestions were incorporated into the curriculum offered to its students.

Selection. The participants in the training offered at the Technical Training Center were recruited by both the union and the MESC. However, the final selection process was the sole responsibility of the MESC. The criteria used in this process were very broad and only roughly defined. Candidates were expected to have had a high school education or its equivalent, related work experience or background and the willingness to accept a training-related job at the entry-level. The selection process followed by the MESC included

testing, personal interviews and selection by a screening committee composed of the unit supervisor and the counselors who conducted the interviews.

Although it is not stated that these criteria were considered, it is presumed that attention was given to factors such as age, sex, marital status, family obligations, present position, salary and job seniority in the final selection of the participants.

It was found that 45.5 per cent of this group were in the 22-34 age category and 36.4 per cent were between the ages of 35 and 44. Only 16.4 per cent were under 22 years of age while only one person was over 44 years of age. Approximately 73 per cent of the students were married and were the heads of households. The same number had completed the twelfth grade in school and had engaged in training or some form of education beyond high school. At the time of selection 87.2 per cent were working and later, at the time of the survey, 94.5 per cent were working at various types of jobs. The jobs included were clerical, service skilled, semi-skilled and unskilled. Later, through interviewing, it was found that while some of the participants were classified as being in service occupations, they held jobs as janitors that paid $3.00 an hour or more.

The demographic characteristics reveals this group to be mostly males, relatively mature in years, married, and many possessed family obligations as the head of the house-

hold. The participants were also found to be relatively well educated and being positively oriented toward education as indicated by the amount of training engaged in beyond the high school level. All but three of them were employed at the time of the survey and the remainder were working at jobs requiring a high level of occupational competency.

The Drop-Outs. In terms of the number of drop-outs and their reasons for doing so, the selection process appears to have been effective. When the statistics referring to drop-outs are reviewed, it is found that 22.54 per cent of the selectees terminated their training early. When the attempt is made to differentiate the drop-out as being "positively-oriented" or "negatively-oriented," only 8.45 per cent of the selectees were considered as having dropped out of the training program for "negatively-oriented" reasons.

Another area of concern developed when the drop-out tables were studied. Here it was noted that eleven of the product detailing students out of a total of 27 terminated their training early. When the reasons for doing so were differentiated, the five who dropped out for "negatively-oriented" reasons was still proportionately high. This figure has greater significance when it is recalled that of the three areas of training for which students were selected, the MESC possessed the testing norms for only this group of selectees. This is the group about which most was known in advance and they suffered the highest rate of early terminations of the three groups studied. It must be presumed that

the objective criteria were observed in their selection and the apparent weakness in the selection process was in measuring the intangibles such as attitude, motivation, etc., toward the training program.

Placement. The placement aspect of this training program was measured by use of the evaluative instrument designed for this purpose. The follow-up study from which this information was gained was conducted three months after the trainees had graduated. It was found that a return of approximately 82 per cent of the questionnaires was received and it was felt that this number was sufficiently large to allow generalizations to be made about the group being studied.

Data disclosed that 42 of the respondents were currently employed, eight of them attributed their jobs to the training they had received and 22 had received weekly wage increases. However, only seven of those in the latter category attributed this wage increase to the training they had received at the Technical Training Center. Data also revealed that the wage increases ranged from $1-15 for fifteen of the respondents, and that six others had received increases of more than $20 a week.

In examining how graduates related their present job to the training they had received it was noted that only seven respondents felt their job was directly-related and 20 felt there was no relationship whatsoever. Fifteen others stated that the relationship between the training and their employment fell somewhere between the two extremes.

Those who had not undergone a job change since beginning training were asked if they had actively sought employment and, if so, what method they used. It was found that the personnel offices of either their present employer or those of other employers were the most popular methods of obtaining employment. The services offered by the Michigan Employment Service for this function ranked third in usage.

Students who had obtained a new position were asked how they had obtained employment. Data show that of the 20 respondents, ten had been upgraded on their existing job, five with union help and five without it. Four had responded to newspaper advertising and three had been aided by their instructor. While none of the respondents attributed their new employment directly to UAW help, only one attributed his employment status to MESC assistance.

A total of 18 respondents said they had rejected job offers in their field of training. The reasons they attributed for this rejection varied greatly among them, but the most frequently stated reason was that of the starting wage offer being too low. During the discussion period that was held each time the follow-up questionnaire was submitted to a group, it was acknowledged on several occasions that wage offers were much too low. Some graduates were offered jobs that paid as little as $1.00 an hour as a starting wage.

The placement efforts of the MESC met with little success. Figures disclosed that 693 introductory letters were sent to prospective employers that described the graduate,

listed his paid work experience, and detailed his training. Only 28 employers responded, inquiring about only 16 of the graduates. Even after arrangements were made for visitations and interviews, only one graduate was hired. This individual terminated his employment on his own volition to return to his former job where he had seniority and from which he had been temporarily laid off.

Conclusions:

1. The selection process was effective insofar as maintaining a low drop-out rate of trainees selected for the program.
2. The selection process may have a weakness in its ability to differentiate among the intangibles such as attitude, motivation, etc., as witnessed by the relatively high drop-out rate for the product detailing students.
3. The selective criteria for students in programs such as these may be too few and too broad in scope. A more realistic prognosis for future placement and/or job change must be anticipated. The candidate's age, present employment, seniority, wage-scale, marital status and family obligations must be weighed against the ultimate goal of successful placement.
4. Twenty-two of the respondents had obtained wage increases since they had entered training, However, only seven of them viewed this as attributable to their training.

5. While 22 of the respondents to the follow-up questionnaire (approximately 50 per cent) saw some relationship between the training and their present position, only seven felt it was directly related. Moreover, 22 other respondents saw no relationship whatsoever.

6. Of those respondents who remained on non-training related jobs, there did not appear to be significant effort at being placed on training-related jobs. The most popular method of placement was with the personnel office of their current employer.

7. The UAW and other unions did not appear to be too influential in obtaining placement of the graduates. Only five respondents attributed their upgrading to union assistance.

8. The MESC, while making a full-scale effort to achieve placement of the graduates, was not effective. Even though it contacted 693 employers, only one graduate was placed.

9. Eighteen of the respondents claimed to have rejected job offers. The most frequent reason stated was that the starting wage offered was too low.

10. Although it is not stated as such, the healthy economy which we are presently enjoying, especially in the automotive industry, may have had an adverse effect on the placement of graduates. There has been much overtime, very few lay-offs, and beneficial

contract negotiations in the industry. This may have created a reluctance on the part of some to attempt a job change at the time.

11. The present follow-up study, which was conducted three months following graduation, may have been premature. An evaluation at a later date may reveal different results.

12. Placement, which was the ultimate goal of the training program, would have had a much better chance of success if full cooperation and participation had existed between the union and the governmental agencies, the full participation of industry was sorely needed. It is felt that the goal of such training programs will only be reached when industry can be persuaded to become an equal partner. Industry could be influential in establishing and achieving goals, development of realistic selective criteria, and also in designing a practical training program. Later it could play a very important role in the placement of graduates on training-related jobs.

Recommendations:

1. Students should be selected from among the younger candidates who do not have significant family responsibilities and other obligations that make it practically impossible to accept an entry-level job with its accompanying low wage rates.

2. Students who are selected for training should not come from the upper positions in the job hierarchy unless they have become unemployed or about to lose their jobs. Placement is unrealistic when individuals from the upper categories are asked to accept entry-level jobs at much lower remunerations, even if the future appears much more promising in the new position.

3. Some students, even though meeting the stated criteria, should not be accepted for training in future programs. A candidate who is in a lower ranking job classification, but is making much more money than he would at an entry-level position, cannot be expected to change positions. This same problem is encountered with those individuals who possess the job security that exists in a job at an established company with many years of experience and seniority. It can be predicted that very few of these workers would be willing to trade jobs for one that offers lower wages and very little in job stability.

4. More must be learned about measuring the intangibles such as motivation, etc., so that students who meet all other criteria will be prevented from terminating their training early for little apparent reason. Drop-outs are costly in terms of both time and money. The training space that was reserved

for them could also be utilized by more promising candidates for training.

5. It is recommended that another study be made after a greater lapse of time. The data and files that have been gathered for this study could be made available for further study.

BIBLIOGRAPHY

And

APPENDICES

BIBLIOGRAPHY

1. Borow, Henry. Man in the World of Work (Boston: Houghton Miflin Co., 1964).

2. California Department of Employment. "Technical Illustrator," Occupational Guide, Los Angeles, 1961.

3. Coursey, Claude, Graphic Illustrating instructor, UAW Local 412 Technical Training Center, Detroit. (Personal interview held September 12, 1964.)

4. Crellin, Jack. "Chrysler, U.S. to Train Youths as Mechanics," The Detroit News, (March 18, 1965).

5. Gleason, W. E., Unit Supervisor, Professional Placement Center, Michigan Employment Security Commission, Detroit. (Personal interview held September 12, 1964 on the selection process.)

6. _____. (Personal interview held February 2, 1965 on placement efforts.)

7. Joyce, Andrew, Product Detailing instructor, UAW Local 412 Technical Training Center, Detroit. (Personal interview held August 5, 1964 about personal information.)

8. Kavieff, Melvin C. The Need for Technicians in the Automotive Manufacturing Industry in the Detroit Metropolitan Area. A research publication of the Detroit Board of Education, (Detroit, 1962).

9. Kramer, Donald L, Clay Modeling instructor, UAW Local 412, Technical Training Center, Detroit. (Personal interview held August 6, 1964 on personal information.)

10. McNeil, Leo and Walter J., staff members, Professional Placement Center, MESC, Detroit. (Personal interviews held August 21, 1964 on the selection process.)

11. Michigan Employment Security Commission. Manpower in Michigan (Detroit: MESC, 1962).

12. Michigan Employment Security Commission. "Automotive Draftsmen 0-48," Michigan Job Brief (Detroit: Occupational Research Unit, MESC, 1957.)

13. Michigan Employment Security Commission. "Model Makers 5-17, (Auto Industry)," Michigan Job Brief (Detroit: Occupational Research Unit, MESC, 1958).

14. Smith, Harold T. Education and Training for the World of Work (Kalamazoo: W. E. Upjohn Institute for Employment Research, 1963).

15. UAW Local 412. Tops in Training, Bulletin No. 1 (Detroit: The Office of Education, AFL-CIO, October, 1963).

16. _____. Tops in Training, Bulletin No. 2 (Detroit: The Office of Education, AFL-CIO, January, 1964).

17. _____. Your Job Security Depends on You!, Special Bulletin (Detroit: The Office of Education, AFL-CIO, October, 1963).

18. U. S. Department of Health, Education and Welfare. Training Activities Under The Manpower Development and Training Act (Washington, D.C.: U.S. Government Printing Office, 1963).

19. U. S. Department of Labor. Catalog of Tests and Materials (Washington, D.D.: U. S. Employment Service, Revised, October 14, 1960).

20. _____. A Message from the President (Washington, D.C.: U. S. Government Printing Office, 1964).

21. _____. Dictionary of Occupational Titles, Part I (Washington, D. C.: U. S. Government Printing Office, 1944).

22. _____. Dictionary of Occupational Titles, Part IV (Washington, D.C.: U. S. Government Printing Office, October, 1944).

23. _____. Manpower and Training: Trends, Outlooks, Programs (Washington, D.C.: U. S. Government Printing Office, Revised, July, 1963).

24. _____. Manpower Development and Training Act of 1962, As Amended (42 U.S.C. 257-2620), (Washington, D.C.: U. S. Government Printing Office, 1964).

25. _____. Manpower Problems and Local Action (Washington, D.C.: National Manpower Advisory Committee, U. S. Government Printing Office, 1963).

26. _____. Manpower Report of the President (Washington, D.C.: U. S. Government Printing Office, 1963).

27. _____. Manpower Research and Training (Washington, D.C.: U. S. Government Printing Office, 1964).

28. _____. The Manpower Development and Training Act: Its Meaning for Young People and Counselors (Washington, D.C.: Office of Manpower, Automation and Training, U. S. Government Printing Office, 1963).

29. _____. Occupational Outlook Handbook (Washington, D.C.: U. S. Government Printing Office, 1963).

APPENDIX I

PERSONNEL SURVEY

(Part I)

September 18, 1964

Notice to Students of the Technical Training School:

This notice is to introduce Mr. Jack Zook, a doctoral student at Michigan State University, who is doing his work in Adult and Higher Education. He has chosen as his dissertation topic a study of the UAW Local 412 Technical Training School and its students. He plans to describe the school and the trainees, conduct a follow-up study, and then evaluate the school in terms of the findings of the study. You are asked to extend your fullest cooperation to him in filling out the enclosed questionnaire and the contents will be treated confidentially.

The first part asks for personalized information. However this will never be used in connection with your name but will be treated statistically in relation to average schooling, age, marital status, etc. It may also be used to furnish information to contact you at a later date for a follow-up study.

The second part asks for information that will be classified in mass and used to evaluate the training, instruction, and the school. It is important that you respond to

every question in order that enough representative responses will be obtained to allow valid conclusions to be drawn.

Thank you for your cooperation on this project. You will be welcome to look over the results when they become available by contacting Mr. Zook, 21102 Greenview, Southfield, Michigan.

Raymond J. Sullivan, Chairman
Joseph V. Tumi, Sec.-Tres.
Wayne Schultz, Director

Dr. Harold J. Dillon
Professor, Adult and
Higher Education
Michigan State Univ.

Date _____ Course _____
Male ____ Female ____

Part I
Personnel Survey
UAW Local 412 Technical Training Center

1. Name: _____ 2. Age: _____
Last First Middle

3. Address: _____
Number Street City

4. Telephone Number: _____ 5. Soc. Sec. No.:_____

6. Marital Status: Single ____ Married _____ Divorced ___
Widow (er) _____

7. Are you the head of a household? Yes ____ No ____

8. No. of dependents: _____

9. Please list the name, address, and telephone number of someone who can always reach you:

_____

_____ Relationship _____

10. State the highest grade level you attained in school ___

_____

11. State any education or training beyond high school _____

_____

12. Are you presently employed? Yes _____ No _____

13. If so, what the name of the company for which you work?

_____

14. What kind of work do you do? _____

15. List the jobs you have held that are related to the training program you are in.

Company	Type of Work	Months
_____	_____	_____
_____	_____	_____
_____	_____	_____

16. Were you employed when you entered this training program? Yes _____ No _____

17. How did you learn of this training program?

Michigan Employment Security Commission (MESC) _____

Union _____ Other _____

18. Have you made any kind of job change since entering this training program?

Yes _____ No _____ If yes, will you please describe.

_____

Date _____ Course _____

Part II
Personnel Survey
UAW Local 412 Technical Training Center

1. Did you graduate from high school? Yes ___ No ____

2. Do you feel the process used in selecting students was:

Excellent ____ Good _____ Fair ____ Poor ____ Other

_____

3. Do you feel the building housing the school including the furnishings, heating, lighting, etc., was:

Excellent _____ Good _____ Fair _____ Poor _____

Other _____

4. Do you feel the equipment and supplies furnished by the school were:

Excellent _____ Good _____ Fair _____ Poor _____

Other _____

5. Do you feel the planning for the program, the building, and the supplies and equipment was:

Excellent _____ Good _____ Fair _____ Poor _____

Other _____

6. Do you feel the training received in the school for your field of work was:

Excellent _____ Good _____ Fair _____ Poor _____

Other _____

7. Do you feel the time and effort you spent in the training program was worth it?

Yes ___ No ____ Comments:_____

_____

8. What part of the training program do you find the most difficult?

The amount of work _____
The kind of work _____
The number of hours ____
The time schedule _____
Developing study habits ___
Understanding the instructor ___
The amount of outside work ___
Other _____

9. What do you enjoy most about the training program?

The type of work _____
The instructor _____
Associating with other students _____
Learning new skills _____
Other _____

10. Do you feel that the amount of individualized instruction the instructor gives you is:

_____ More than enough
_____ Enough
_____ Less than enough
_____ Too little
_____ Other _____

11. How do you feel you were graded on the work you produced in the training program?

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other _____
_____

12. How would you rate your instructor in terms of imparting the knowledge and skills necessary for you to become trained in the subject area:

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other _____
_____

13. How do you feel about the group lectures given by your instructor?

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other _____
_____

14. Do you have any specific suggestions for improving the instruction in the program?

_____ More individualized help
_____ Less individualized help
_____ More lectures
_____ Fewer lectures
_____ More assignments
_____ Fewer assignments
_____ Better preparation
_____ Other _____

15. Do you have any specific suggestions for improving the overall operation of the school?

_____ More equipment
_____ More supplies
_____ Better quality of materials
_____ Better building
_____ Better location
_____ Increase hours of training
_____ Decrease hours of training
_____ Other _____

APPENDIX II

INSTRUCTOR SURVEY

UAW Local 412 Technical Training Center

1. Do you feel the process used in selecting students was:

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other (Comments) _____

2. Do you feel the building housing the school including the furnishings, heating, lighting, etc., was:

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other (Comments) _____

3. Do you feel the equipment and supplies furnished by the school were:

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other (Comments) _____

4. Do you feel the planning for the program, the building, and the supplies and equipment was:

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other (Comments) _____

5. Do you feel the level of training achieved by the trainees in your field was:

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other (Comments) _____

6. Do you feel the amount of time and effort the trainees spent in the training program was worth it?

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other (Comments) _____

7. What part of the training program do you feel the trainees found the most difficult?

_____

_____

8. What part do you feel the trainees enjoyed most?

_____ The type of work
_____ Associating witn other students
_____ Learning new skills
_____ Other _____

9. If you taught this class again, how would you handle the individualized instruction?

_____ Decrease it
_____ Leave it as is
_____ Increase it
_____ Increase it greatly
_____ Other (Comments) _____

10. If you taught this class again, how would you handle the grading system?

_____ Leave it as is
_____ Improve it some
_____ Improve it greatly
_____ Revise it completely
_____ Other (Comments) _____

11. How would you rate the students in terms of receiving the knowledge and skills necessary for them to become trained in the subject area?

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other _____

12. If you taught this program again, how would you handle the group lectures?

_____ Leave them as they are
_____ Improve them some
_____ Improve them greatly
_____ Completely revise them
_____ Other (Comments) _____

13. If you taught this program again, what specific changes would you make?

_____ More individualized help
_____ Less individualized help
_____ More lectures
_____ Fewer lectures
_____ More assignments
_____ Fewer assignments
_____ Better preparation
_____ Prepare differently
_____ Other (Comments) _____

14. Do you have any specific suggestions for improving the overall operation of the school?

_____ More equipment
_____ More supplies
_____ Better quality materials
_____ Better location
_____ Increase hours of training
_____ Decrease hours of training
_____ Other (Comments) _____

15. How do you rate the administration of the school in terms of operating procedures, obtaining materials and supplies, amount of red tape, etc.?

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other (Comments) _____

APPENDIX III

FOLLOW-UP QUESTIONNAIRE

UAW 412 Technical Training Center

January 20, 1965.

Enclosed you will find the second part of a two-part questionnaire. You will recall that you filled out the first part at the Technical Training Center in October, 1964. Would you please answer the enclosed questionnaire to the best of your ability and return it to me in the enclosed envelope. I am working towards a deadline of January 25, 1965 and would appreciate the return of the questionnaire by that date.

The questionnaire is designed to find how valuable you have found the training program you finished at the Technical Training Center and if your job status has changed in any way because of it. The information you furnish will be used anonomously in a general way to provide statistics with which to evaluate the school.

To show how some of the information you gave in the past has been used, a chart describing your group is enclosed. Please keep this chart for your own use.

Thanks again for your cooperation, and remember the information you provide will probably be used to improve future programs of the nature of the Technical Training Center.

Sincerely yours,

Jack F. Zook
21102 Greenview
Southfield, Michigan

Approved:

Raymond J. Sullivan, Chairman
Joseph V. Tumi, Sec. Treas.
Wayne Schultz, Director

Dr. Harold J. Dillon
Adult and Higher Ed.
Michigan State Univ.

UAW 412 Technical Training Center
Follow-Up Questionnaire

1. A. Are you presently employed? Yes ___ No ____

   B. If you are unemployed, what do you feel is the reason for this?

   _____

   (If you answer this, go directly to Question 8A)

2. What is the title or description of your present job?

   _____

3. Did you receive your present job as a result of the training you underwent at the Technical Training Center? Yes ____ No ____

4. Below - will you please indicate the relationship of your present job and the skills and/or knowledge that you gained in the training experience at the Technical Training Center?

   A. Directly related - uses many of the skills learned at TTC _____

   B. Closely related - uses some of the skills learned at TTC _____

   C. Indirectly related - uses a few of the skills learned at TTC (Sales work in the field, being able to read a blueprint, etc.) _____

   D. Unrelated - use none of the skills learned at TTC _____

5. A. Has your gross weekly wages or salary increased since you began your training at the Technical Training Center? Yes ___ No ____

   B. If yes, do you feel it is because of your training at TTC? Yes ____ No _____

   C. If yes, please estimate the gross weekly amount of increase (Remember this information is treated anonomously).

   $1-5 ____ $6-10 ____ $11-15 ____ $16-20 ____

   More than $20 _____

6. A. If you have changed your occupation to a training related job since you began training, how do you rate the training received at the Technical Training Center? The TTC training was:

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other (Comments) _____

B. If you have not changed your occupation since training began, how do you rate the value of the training received at the Technical Training Center? The TTC training was:

_____ Excellent
_____ Good
_____ Fair
_____ Poor
_____ Other (Comments) _____

7. If you have had a job change since you began training at the Technical Training Center, how did you get this new job?

A. Upgraded to another job with the same employer with assistance from the union ___

B. Upgraded to another job with the same employer without assistance from the union ___

C. Received assistance from the Michigan Employment Service (MESC) ___

D. Friend or relative helped me locate this job ___

E. Found it myself through newspaper ad, employment office, etc. ___

F. Instructor from the Technical Training Center helped me locate it ___

G. Received assistance from the UAW or another union ___

H. Other (Comment) _____

8. A. If you are not working at a training-related job, have you applied for employment in the field for which you were trained? Yes ___ No ___

B. If yes was the answer to Question 8A, with what agency did you apply? (Select from choices below)

1. Personnel office of present employer _____

2. Personnel office of other employers _____

3. Michigan Employment Service _____

4. Private employment agencies _____

5. Other (Comments) _____

C. If you attempted to obtain employment by any of these means, circle the number below as it applies to the question.

Attempts at being placed: 1 2 3 4 5 6 7 8 9 10 More

Different employers or agencies: 1 2 3 4 5 6 7 8 9 10 More

9. If you have rejected an offer of a training-related job, indicate the reason below.

____ Starting rate too low
____ Future of new job unattractive
____ Conditions of present job improved. (Overtime - upgraded - received a raise - etc.)
____ Future of present job more attractive. (Working hours - distance from home - etc.)
____ New job had inconveniences. (Working hours - distance from home - etc.)
____ Other (Comments) _____

10. Would you take further training at the Technical Training Center if it were offered? Yes _____ No _____

Comments: _____

11. Are you taking, or do you plan to take, additional course work as it is offered by your employer, night school classes, etc.? Yes ___ No ____

Comments: _____

12. Since your graduation from the Technical Training Center (approximately three months ago), do you have any additional comments or suggestions for improving the training program that you did not make on the last questionnaire? Yes ___ No ____ Comments: _____

_____