EMPLOYEE TRAINING NEEDS, PLANS AND COMMITMENTS OF SELECTED OKLAHOMA BUSINESSES

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CHAPTER I

THE PROBLEM

Introduction

The educational requirements of any occupation or group of related occupations is fixed for only a short period of time. However during this time, that requirement needs to be made known. This is especially true in the area of adult continuing education. Once the educational requirements are known goals and objectives may be established to meet those requirements. The establishment of viable adult educational programs to retrain and upgrade the present workforce should be one of those goals. Long term and short term programs need to be initiated.

It is true that today there are a number of company training programs as well as retraining programs. Also a large number of technical schools, community colleges, etc. have initiated various adult programs. A variety of cooperative programs between the industrial and educational community have also been established. All this is an effort to retrain or upgrade the present workforce. Almost all of these programs suffer from a common ailment; they are all operating on a demand basis. A sort of instant program to fill an instant need. With this type of demand basis education, the best plan of instruction is not always followed. The training establishment is always forced into a poor posture. It must constantly "tool-up" for these instant and changing programs. As any industrialist knows, constant tooling up is a very

costly process. This requires the training establishment to set large program fees or to require large enrollments at reduced fees. When the fees for a program become very high many of those who would benefit from the program are prohibited from attending because of the large fee. A solution to this problem is of course the company in-house training program. A number of such programs have been developed, some good and some lacking from a scarcity of funds, space and time which can be allocated to them. There is often much duplication of effort when there is a new need and little time to search for an existing program. Technical schools which try to outguess the training needs of local industries may spend large sums of money to prepare for a projected need that never develops. The problems are acute, everyone recognizes a need for some type of training and everyone is attempting to fill that need. The training is often undertaken in a hurry up make do fashion. Before the present workforce can be adequately upgraded, a viable educational program needs to be instituted. Since the major objective of this educational program will be to provide continuing educational opportunities for the present workforce, the educational needs of that workforce must be made known. Those individuals in industry charged with the responsibility of identifying those needs, formulating plans and implementing programs to meet those needs should be called upon to provide that information to the educational community. Without such information, the educational community will be at a loss to assist industry in the task of providing continuing educational programs for the present workforce.

Statement of the Problem

The problem with which this study is concerned is a lack of information, documenting for a specified period of time, the adult employee continuing educational needs, as well as the employee training plans and commitments of the business community.

It is this lack of information which causes the problems associated with the attempts to upgrade the present workforce by continual educational programs. It is rather ironic that as the American society becomes more knowledge orientated, one of the largest gaps in that knowledge is in the area of increased educational needs.

Purpose of the Study

The purpose of this study is the identification of the employee training needs, plans and commitments of selected Oklahoma businesses as perceived by their training officers. The specific objectives of this study were to:

a. Identify the types of training required by businesses.

b. Identify the plans of businesses for meeting these needs.

c. Identify and document the possible Oklahoma buinesses' commitment to assist the educational community in establishing training programs for retraining and upgrading the professional workforce.

It also was the purpose of this study to ascertain whether additional studies of this type are feasible.

The Need for the Study

To date, the identification of the training needs of the business community has been on a largely hit or miss basis. A particular

company may contact a training organization and disclose a need for a specific type of training program. The training organization then tools up to fulfill that need. The industrial company has a need that has developed over a long period of time. The disclosure of that need usually is not made until that need or problem has become acute. The training organization then develops and implements the program. If there were more than one business which could have utilized the program, it probably was never established. The business seeking the training may contact a training organization to help develop a program without realizing that a program is being offered locally that will meet its needs. This produces a duplication of effort and eventually an increase in the cost.

The individual businesses of course will benefit directly from the study. They will also have an indirect benefit from the increase of data sent to the training institutions such as community colleges and technical schools. These training institutions will derive a direct benefit from the study in establishing the types of training programs required in their area. Also the study will ascertain the extent to which business community will commit funds, time and equipment to a training institution for a particular program.

The need for the information gathered in this study is very great. The need for this type of a study has been recognized by both the business and the educational communities. According to McGehee (9):

> Adequate training will rely in securing reliable data as a basis for answering the following questions:
> 1. Who is to be trained?
> 2. In what are they to be trained?
> 3. By whom are they to be trained?
> 4. How are they to be trained?
> 5. How are the results of the training to be evaluated. . . (p. 120).

This study will focus on questions 1 and 2 of the above list. Once the answers to these are established, the remaining questions can be answered. Before any training can commence with any hope of success, the questions of who and in what areas need to be answered. For the tremendous training job facing the business community, the need to know is very great. There is a need to know who is doing what. There is a need to know the probable employee training needs, plans and commitments of the business community. If the nations technical educators are to tool up for the remainder of the twentieth century they need to know not only the educational requirements of the workforce, they need to know the business commitment to fulfill those needs.

Scope of the Study

The population of this study was limited to members of the American Society for Training and Development (ASTD), Tulsa and Oklahoma City chapters. The population was further limited by excluding all members from those chapters who were employed in the area of public education or as educational consultants. For purposes of this study, where more than one employee of a company belonged to ASTD, only the employee most likely to have the information was contacted for the survey. Organizations such as the FAA and the military were excluded from the study due to the emphasis on in-house training given by both of these groups.

Assumptions

This study is undertaken with the following assumptions clearly in mind: (1) that the individuals contacted will be able to identify the training requirements of their respective organizations, (2) that

these same individuals will know the plans for meeting these employee training needs, and (3) that the questions asked will not bias the answers to the questionnaire. It is further understood that the results of this study are in no way binding on any organization or individual.

Definitions

Before examining the steps used in developing the study, several definitions of terms used in the study will be given.

Training: The formal or informal process by which the learning of skills and knowledge took place.

Continuing Education: The continuing of the educational process freely undertaken by an individual (whose formal education has been completed or discontinued) to meet his future anticipated needs, as he perceives those needs.

Formal Training: Any training which is conducted at a place other than the primary job location, using any systematic method.

Informal Training: Any non-systematic type of training, usually conducted at the employees primary work location.

Summary

This chapter has sought to establish upgrading of the present work-force as a very real problem facing today's workforce. This need has been brought about by the rapid changes in the technology of todays industrial complex. The workforce, many of whom have a number of years of education behind them find themselves suddenly lacking the knowledge to function adequately on the job. Schools and training organizations whose job it is to assist these people in their quest to regain or

upgrade their professional competencies, have a great need for information. They need to know the extent of training required, and the answers to such questions as: (1) how many participants and for how long a period of time, (2) what type of training will be required, and (3) will industry assist with the cost and the training? Companies with similar needs must know where their counterparts are and if training costs, etc. may be shared.

With such a lack of information facing both the trainer and the trainee the need for a study of this type has been established.

The purpose of this study is to identify employee training needs and plans to meet those needs as well as to identify the possible industrial commitment to the educational community in helping to establish needed educational programs.

CHAPTER II

REVIEW OF LITERATURE

Introduction

Much of the literature to date points to the need for developing a plan to create an adequately trained manpower pool. The major thesis being that we must have a labor force trained to enter the occupations created by the new technologies. This researcher has no argument with that premise. The argument is however that if a new labor force is continually being trained to enter the job market, what happens to those in the present workforce who are becoming obsolete? What are the plans for their continuing education? Through this review of the literature, this researcher will attempt to unfold the training picture of the technical workforce in the United States in an attempt to answer those questions. This picture should provide a clearer understanding of the need for the study being undertaken here.

Roney and Braden (16) maintain that educational institutions must keep atuned to the changes in occupational requirements as they pursue the development of our human resources. Unless this is done they tell us our society will be characterized as one in which the jobs will require skilled people, but where the people will be too poorly trained to do those jobs or to make a contribution to the society.

Development of Adult Continuing Education

Adult education may be the new frontier as seen by some leaders on the educational scene today. Actually, the Department of Adult Education was established in 1924. In the early 1930's, the first graduate program of adult education was established at Columbia University. To clarify a point, the author's definition of adult continuing education is given here. First, Alford (1) calls for a new term to suggest the single integrated educational process from pre-kindergarten to post-retirement demanded by the knowledge explosion of the twentieth century. The term is Continuing Education. Next, Ohliger (12) suggests that adult education is any purposeful effort toward self development without direct legal compulsion. Third, Verner (22) says the adult in education is anyone who has either discontinued or completed his formal education and is now trying to re-engage in the educational process. The definition then of Adult Continuing Education used by this author and based on the above reading will be: The continuing of the educational process freely undertaken by an individual (whose formal education has been completed or discontinued) to meet his future anticipated needs, as he perceives those needs.

Under this definition then, Adult Continuing Education might be the completion of high school by a drop out, or the taking of a one week short course by a college graduate. The important concept is the fact that it is a form of education undertaken to fill a need regardless of how that need was created.

The period from 1930 to 1946 began to show an expansion in the professional writings of adult educators. During this time there was a need for a specific definition and description of the programs of

adult education. In 1964, the AD HOC Committee of Adult Education Organizations (now the Coalition of Adult Education Organization) was formed. In 1965, the Bureau of Adult and Vocational Education was established within the U. S. Office of Education. Within the bureau was a division of Adult Education Programs. Also in 1965, the National Advisory Council on Extension and Continuing Education was established under Title I of the Higher Education Act of 1965. Adult and Continuing Education has continued to grow and advance at about every major university in the past decade.

Need for Training

Drucker (4) has said:

> Mass production has upgraded the unskilled laborer of yesterday into the semiskilled machine operator of today and in the process multiplied his productivity and his income. In just the same way, automation will upgrade the semiskilled machine operator of today into a highly skilled and knowledgeable technician multiplying his income again (p. 44).

New knowledge, new skills, and new basic sensitivities will be demanded of larger number of the workforce as we continue our growth as a knowledge economy. This in itself creates a need for training. Automation, once feared that it would diminish not only jobs, but also the need for human thinking and of persons with high levels of skill and education, has indeed demanded just the reverse (4). It is or should be quite evident that as our society becomes more sophiscated the need for new training will increase not diminish. It can be seen then that the preservice training for any career is not the end but only the beginning. The human urge (or desire) for individual advancement coupled with the demand for trained personnel necessitated by

technology and industrial change should emphasize the importance of post school or even post college training. The Educational Policies Commission of the NEA (19) states that:

> The necessity for immediate upgrading of the present labor force and for lifelong education for vocational flexibility and efficiency in the future throws heavy responsibility on evening schools, university extension programs and community colleges (p. 79).

The commission went on to say that alert development of programs specifically designed for the needs of a specific locale and specifically concerned with providing opportunities for growth and retraining are not only needed but will pay large dividends in the years to come. There is indeed a need for training and good training programs. The Educational Policies Commission made it very clear that there was a need for the upgrading of the present work force. Unfortunately this segment of society "the present labor force" is often overlooked when society budgets its funds for training. This training, in most cases of technology, becomes obsolete by the time the student enters college and certainly by the time he leaves college. With greater numbers of the population attending at least four years of college, it might seem wise as the commission states to increase the programs of junior colleges and university extension departments to assist the present labor force. It is evident that industry cannot be solely responsible for the retraining of the entire present work force. There must be a sharing of the retraining responsibilities between the industrial and the educational communities.

A quote from Olean (13) reinforces the statement by the Educational Policies Commission: "As viewed from the world of business, what was studied in college is yesterday's knowledge. But what will be needed for

a future business career is tomorrows knowledge. . ." (p. 6).

Backed by this prevalent philosophy, and the growing problem of employee obsolescence, many business organizations have responded with what they believe to be an appropriate remedy: Continuing Education. There has been a mushrooming of support in recent years for more training and educational activities that has almost paralleled the knowledge explosion. To further substantiate the need for continual adult education, the following should prove useful as shown in Table I (13).

TABLE I

IMPORTANCE OF OBJECTIVES IN GETTING ADDITIONAL EDUCATION OR TRAINING AMONG 4,400 TECHNICAL PROFESSIONALS

Objectives	Percentage Agreeing
To keep from becoming obsolete	64.3%
To prepare myself for increased responsibility	62.8%
To perform my present assignment better	44.8%
To remedy deficiencies in my initial training	38.8%
To obtain an advanced degree	34.2%
To enable me to become an authority in my field of speciality	34.1%
Because my manager expects his people to take additional coursework	6.6%

Table I reveals that among those questioned, the most important objective in taking courses would be to keep from becoming obsolete. Two thirds of those responding see continuing education as important for staying up-to-date and for their career development. Approximately one third would participate in continuing education to obtain an advanced degree or to become an authority in the field.

There is a need for continual education programs. The need will continue to increase as the base of our economy becomes more knowledge oriented.

Types of Training

Tracey (20) maintains that there are four general categories into which training may be divided. These are as follows:

1. Induction, orientation and job skills programs for the new hired or newly assigned personnel.

2. Remedial and retraining programs designed to correct observed deficiencies in employee knowledge, skills or attitudes.

3. Upgrading programs designed to improve, enlarge or increase job skills and knowledge.

4. Development programs designed to enhance the educational background of employees or to prepare them for supervisory, managerial or other positions calling for the assumption of broader responsibility (p. 25).

The type of training to which this survey will be addressed is best categorized by item 3 of the above. Indeed, if the type of situation to be combated by training programs is obsolescence, then the programs must be aimed to that problem. Of course, items 4 and 2 of the above list are also of prime importance in the field of adult continuing education. One of the major objectives of this study will be to ascertain the type of training required by the business community.

Research in the Field

A review of relevant research in the field indicates that the primary thrust has been toward assuring manpower needs and in organizing training programs to qualify individuals for placement at the entry level to an occupation.

Mullins and Guerra (10) established in their study of state vocational program in Texas that the vocational educational offerings do not reflect the state's present or future manpower needs. This study was undertaken in 1974 and indicated a serious mismatch between the states vocational high school programs and the state's labor market.

A planning format developed by the Minnesota Research Coordinating Unit for Vocational Education outlines a format for displaying occupational supply and demand data. The purpose of this display format was to make the data more useful for those who must make decisions in the planning of vocational programs (3).

A review of the existing occupational information system of California was done by the Office of The Chancellor, Sacramento (23). One significant finding from the review was that the existing system was highly geared to Federal requirements. It was recommended that an extensive revision be undertaken to provide relevant information on the local and state levels.

In his study of the educational needs assessment of adults in the Miami area, Thatcher (20) was able to recommend a course of action. The study was to determine the: (1) educational desires and aspirations of the community, (2) manpower training and educational needs of businesses and industry (3) types of training programs available in the area, and (4) types of training programs needed. A needs assessment was conducted

An analysis of the data recommended development of programs in business, sales, mid-management, secretarial, auto/diesel. Areas recommended for further investigation were: electronics, drafting, mining technology and programs for the handicapped.

A study of the identification of adult career needs was undertaken at Paris Jr. College, Paris, Texas (6). The study entailed a survey of 30 counties in East Texas. A two page questionnaire was used to survey business and industry in those 30 counties. Seventy-five percent of those firms reporting indicated that they were experiencing manning problems due to a lack of training and education. Areas most identified as deficient were: machinists, welders and maintenance men.

A review of the Occupational Training Information System (OTIS) is presented here to show one research program undertaken in Oklahoma to study statewide manpower planning (2). The OTIS report was initiated in 1968 and is revised on a yearly basis. The intent of the OTIS report is to provide information on the supply of and the demand for sub-professional manpower in the state of Oklahoma. OTIS was designed to generate and organize new information that would be useful to decision makers in evaluating the success of the vocational and technical education systems in the state. The following is a list of some of the uses of OTIS data:

1. The data are used as a starting point for the manpower demand and supply interfacing for the State Plan for Administration of Vocational Education.

2. The data are used to help evaluate some specific local programs by providing follow-up data on the graduates.

3. The data are used to identify new areas of employment for which

new types of training are being developed. Special programs are conducted to meet immediate needs in a particular job functions.

4. The data are used by some area vocational-technical schools for direct and specific placement purposes.

The OTIS data is used to establish training needs. The major emphasis of the system, as well as its major use is to create a manpower pool of recent graduates who are prepared to enter an occupation. A limitation of the OTIS report is that it does not seek to establish the training needs of the present workforce. This is made evident by information obtained from the demand questionnaire. The questionnaire asks how many people are employed in a job classification (D.O.T. Codes), how many new jobs are expected in that classification, and how many of those presently employed in the classification will be replaced?

While the OTIS report is certainly a major step in the direction of developing a statewide manpower development plan, it is felt to be lacking in that it does not deal with the problems of obsolescence and training programs for those presently employed. These areas should be a major part of any state-wide vocational-technical training program.

Responsibility for Training

Katz (7) stated:

> Universities must respond favorably to community needs for adult education. If universities fail to meet this need, commercial organizations will do so, but without the knowledge feedback essential to the sustained life and self-renewal of the university (p. 10).

Katz went on to define several functional responsibilities of universities in continuing education:

1. Maintain a constant awareness of unmet educational needs in the adult community and implement means for coping effectively with those needs on a realistic basis.

2. Continually research the characteristics of the adult learner as well as the climate and methodology to facilitate efficient learning by adults (p. 10).

Katz warns that if universities fail to meet the challenges, commercial organizations will meet the needs and fill the gaps. The trend toward establishment of training programs within industry will continue. Extensive training programs are however generally limited to large firms. Smaller industries are not likely to assume responsibility for educational programs on a scale approaching that of large industries. For these smaller industries the great burden of the training must continue to be carried by the school and college. The Educational Policies Commission of the NEA (19) states that:

> In those instances in which large industries develop training programs geared intimately to the industry's needs, the programs of public schools should take these developments into account. The school, however, is not thereby released from responsibility in the field. It must help to keep channels open for occupational shifts and adjustments for those who seek new opportunities, and it must serve smaller industries for which industrial programs are not feasable (p. 78).

Summary

This chapter has attempted to guide the reader via writings in the field to the conclusion that there is a need for this study. A need for training as well as the type of training to be offered has been shown. The responsibility for training has been shown to be a shared one between industry and the professional educators, with the educational institutions being given final responsibility by society to provide educational opportunities for all. As a final note, Turner (21) states, "Non-credit continuing education has been the fastest growing segment

of education since World War II" (p. 5). This can be traced directly to: "(1) the rapid expansion of knowledge, and (2) the obsolescence of its long term utility" (p. 5). He continues: ". . . more and more education for specific careers and job functions has to be obtained after graduation and continue throughout the individuals productive life" (p. 6).

Whether industry or education provides the training services required the needs of the workforce must be made known, as well as businesses plans and programs to fill those needs.

CHAPTER III

METHODOLOGY

Introduction

The problems of training needs, plans and commitments of the selected Oklahoma businesses were analyzed through the use of descriptive research. Descriptive research is used to obtain information dealing with the current state of conditions. Key (8) has outlined the steps involved in a descriptive survey. They are:

1. Statement of the problem.
2. Identification of information needed to solve the problem.
3. Selection or development of instruments for gathering information.
4. Identification of the target population and determining of sampling procedures.
5. Design of procedure for information collection.
6. Collection of information.
7. Analysis of information.
8. Generalization and/or predictions (p. 3).

Chapters one and two of this study were used to develop the statement of the problem and the identification of the information needed to solve the problem. The remaining steps of the above list may be categorized in four major areas as follows:

1. Selection of the respondents
2. Development of the instrument

3. Collection of the data

4. Analysis of the results

Each of these steps will be described in detail in later paragraphs.

Selection of the Respondents

Today there are many businesses which have a training department or training officer, etc. Businesses with such staffing usually encourage their employees to participate in educational activities. The American Society for Training and Development (ASTD) is the professional society to which such staff, who are interested in sharing of knowledge and experience for the betterment of their respective companies, would belong. These individuals (or departments) then have a knowledge of the training plans, needs and commitments of their respective companies. It was felt they could most properly respond to questions which attempt to ascertain the educational needs of their businesses.

Using preliminary discussions with members of the Tulsa and Oklahoma City chapters of the ASTD, the selection of individuals as respondents to the study from their membership was deemed feasible. A visit to a meeting of the Tulsa chapter of ASTD was made by the researcher. The nature of the study was presented to the group. A show of hands of the membership in attendance indicated a willingness of those members to participate in the study. A telephone survey of the membership was decided on for this group. A mail out survey was felt to be unwise due to the small population.

Through telephone conversations with members of the Oklahoma City chapter of the ASTD, this group agreed to participate in this study also. It was further agreed that the best method for their participation would

be through a visit by the researcher at which time the data could be collected.

Development of the Instrument

The study instrument was developed from several sources. The researcher contacted several individuals from various continuing education, and adult training departments at several schools. These individuals were asked, in personal interviews, which items would best assist them in developing adequate training programs. Appendix A lists those individuals. A rough instrument was developed and sent to several business training directors for their input as to vagueness of questions, double meaning, appropriateness of questions and additions or deletions. The completed instrument was reviewed by several members of the Oklahoma State University faculty employed in the area of adult and/or continuing education, to insure clarity and appropriateness. The final instrument as used is given in Appendix B.

Collection of the Data

Upon completion of the survey instrument, a visit was made on January 12, 1976 to the meeting of the Oklahoma City chapter of the ASTD. There were thirty members present. The researcher outlined the purpose of the study and the information to be gathered from the survey instrument. The ASTD members were then given a copy of the instrument and asked to complete it. Where a business was represented by more than one member, only one response was solicited. The member most likely to possess the information needed to complete the survey was asked to complete the instrument. Several of the ASTD members were on school

faculties or were in consulting or training activities and did not participate. Several of the members did not choose to participate for other reasons. There were 22 responses obtained at this meeting, of which 18 were considered usable.

During the period from January 26, 1976 to February 20, 1976 a member of the Tulsa ASTD chapter and an educational consultant were hired to conduct a telephone survey of the membership of the Tulsa chapter of ASTD. Again using the complete Tulsa membership list, schools and consulting firms or training organizations were omitted. This left a total of thirty companies. Of this total, all were contacted and all responded. Twenty-nine of the responses were deemed usable.

Fifty-two businesses were surveyed in the Oklahoma City and Tulsa areas. A list of the respondents is given in Appendix C.

Analysis of the Data

When the last respondent had been contacted and his survey instrument completed, all of the data was recorded and tabulated for an analysis of the results. It was decided that the data would be summarized as follows: First, a comparison was made between Oklahoma City respondents and Tulsa respondents and between companies of less than 500 employees and those of more than 500 employees as to their:

a. need for training

b. type of training

c. commitment to assist schools

Second, the types of training required were ranked through a number which was the product of the response weight and the number of respondents selecting that response. The responses were weighted as follows:

Response	Weight
NONE	0
AVERAGE	1
VERY GREAT	2

Third, the types of commitment were also rated and ranked in a similar manner. These responses were weighted as follows:

Response	Weight
NONE	0
SOME	1
HALF	2
MOST	3
ALL	4

Fourth, a comparison was made between the apparent need for training and the relative commitment to assist educational institutions develop adequate training programs. Fifth, the total numbers (or percentages) of employees to be trained were listed for each training category. Lastly when the numerical values of the mean response for two response groups indicated the category of response (such as None or Average) but the numerical responses were at the opposite extremes of the category scale, a "t" test was conducted on the two numerical values. The "t" test was used to determine if there was a significant statistical difference between the two mean responses. An indication of such statistical significant differences at the appropriate significant level was made on the tables as necessary.

The formula for the "t" test used is presented below (14):

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

Where:

t = the value by which the statistical significance of the means

difference will be judged.

$\bar{x}_1$ = the mean of group 1

$\bar{x}_2$ = the mean of group 2

s_1^2 = the variance of group 1

s_2^2 = the variance of group 2

n_1 = the number of subjects in group 1

n_2 = the number of subjects in group 2

Limitations

The results of this study are limited by the fact that predictions were required of the respondents. While it may be assumed that such predictions are accurate and based on valid premises, no inference can be drawn from the results that such predictions will not change.

CHAPTER IV

PRESENTATION OF DATA

Introduction

The purpose of this study was the identification of the employee training needs, plans and commitments of selected Oklahoma businesses. To do this a survey was conducted through a professional training organization. Members of the American Society for Training and Development (ASTD) were contacted in the Oklahoma City and Tulsa geographic areas. Members of ASTD who held positions of responsibility for company training programs were surveyed via a questionnaire, their responses are summarized in this chapter.

All respondents did not choose to answer all questions on the survey instrument. Even within a particular question, all categories were not always checked or answered by the respondents. This has led to some discrepancies in the numbers of responses for a particular question. Where certain responses are shown to have a statistical difference, a "t" test was used.

The first three tables of this chapter take a look at the projected training needs of the businesses surveyed. It is through this information that the training needs of the business community should be made clear.

Business Training Needs for Employees

Table II shows a comparison of training needs between the Tulsa and Oklahoma City groups. The degree of need was to be given one of three responses: none, average or very great. The scale for the responses was zero, one and two. An average need would have a mean response of 1.00. No real differences for the selected types of training by location were indicated. All responses were rated in the average category while the actual values of the mean responses ranged from a .65 for sales training to a 1.43 for supervisory training in Tulsa. The Oklahoma City businesses also ranked supervisory training as their number one need with a mean response of 1.36. Up-grading was ranked second and third by the Tulsa and Oklahoma City businesses respectively. The mean response of the Tulsa businesses was 1.17 while the Oklahoma City businesses had up grading with a 1.18 mean response. A comparison of training needs by number of employees (Table III) showed a major difference between large and small businesses for a need in sales training. The large businesses ranked sales training seventh out of seven choices with a mean response of .52. This is at the extreme low end of the average range. Small businesses ranked sales training third with a mean response of 1.11. Minor differences were shown in new skill training with a mean response for large businesses of 1.20 and a mean response of .88 for small businesses. The large businesses gave supervisory training a mean response of 1.52 or very great. Overall however, between small and large businesses, all types of training were given a rating of average, ranging from a low of .72 for sales training to a high of 1.47 for supervisory training. Following those extremes, new

TABLE II

COMPARISON OF THE DEGREE OF NEED FOR SELECTED TYPES OF TRAINING BY LOCATION OF BUSINESS

	Distribution by Degree of Need and Location															
	Tulsa								Oklahoma City							
	None		Average		Very Great		Mean		None		Average		Very Great		Mean	
Type of Training*	No.	%	No.	%	No.	%	Response	Rank	No.	%	No.	%	No.	%	Response	Rank
a.	7	24	16	55	6	20	.96	5	1	9	9	82	1	9	1.00	5
b.	4	13	22	75	3	10	.96	5	2	18	8	73	1	9	.90	6
c.	2	6	23	79	4	14	1.07	3	1	10	8	80	1	10	.90	6
d.	4	15	18	69	4	15	1.00	4	2	17	6	50	4	33	1.27	2
e.	0	0	16	57	12	43	1.43	1	1	8	7	58	4	32	1.36	1
f.	0	0	23	82	5	18	1.17	2	2	18	5	45	4	37	1.18	3
g.	12	46	11	42	3	12	.65	7	4	37	2	18	5	45	1.09	4

*Type of Training:

a. Safety training
b. New technical training
c. New skill training
d. Motivational training
e. Supervisory training
f. Up-grading
g. Sales training

TABLE III

COMPARISON OF THE DEGREE OF NEED FOR SELECTED TYPES OF TRAINING BY NUMBER OF EMPLOYEES

Distribution by Degree of Need and Number of Employees

Type of Training*	Greater Than 500								Less Than 500								Total Mean Response	Rank
	None		Average		Very Great		Mean Response	Rank	None		Average		Very Great		Mean Response	Rank		
	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%				
a.	2	10	13	65	5	25	.92	6	5	25	13	65	2	10	.85	7	1.0	5
b.	1	5	15	75	4	20	1.15	3	5	25	12	60	3	15	.90	6	.94	6
c.	0	0	17	81	4	19	1.20	2	4	21	12	63	2	16	.94	5	1.05	4
d.	4	14	12	57	4	19	1.05	5	3	15	12	60	5	25	1.10	4	1.20	3
e.	0	0	10	48	11	52	1.52	1	3	11	11	63	5	26	1.20	2	1.47	1
f.	0	0	17	85	3	15	1.15	3	2	11	11	58	6	31	1.21	1	1.21	2
g.	11	52	6	29	2	9	.52	7	6	29	5	29	7	14	1.11	3	.72	7

*Type of Training:

a. Safety training
b. New technical training
c. New skill training
d. Motivational training
e. Supervisory training
f. Up-grading
g. Sales training

technical training was ranked sixth while up-grading was given an overall ranking of second.

Projected Business Training Plans for Employees

A projection of participation in selected methods of training is given in Table IV. The participants were asked to project the percentage of their employees who would receive training via one of the seven methods listed. Overall, in-house (informal) on the job training programs showed the highest projected training with an average of 47.7 percent of employees who would receive their training via this method. Only 3.8 percent of all employees would probably be using college non-credit workshops. Both large and small businesses reported identical rankings for the entire list of methods of training. In-house training programs whether formal or informal were ranked consistently first or second. They received twice the average percentages overall of the third ranked method which was off site (but company sponsored) training programs. Correspondence studies was given a consistent last place ranking (2.6 percent overall) with only an average 1.0 percent of the employees in Oklahoma business projected to use this method for training.

Information presented in Table V is a projection of participation in the formal and informal training programs by type of training. Safety training was ranked as number one by the Oklahoma City and Tulsa businesses as well as by large and small businesses. This top ranking was in both the formal and informal type of training except Oklahoma City informal. Ranking last in projected participation by total responses was supervisory training. This was true for both the formal and

TABLE IV

COMPARISON OF PROJECTED PARTICIPATION IN SELECTED METHODS OF TRAINING FOR 1977 BY LOCATION OF BUSINESS AND NUMBER OF EMPLOYEES

	Distribution by Location and Number of Employees									
			Location				Businesses Employing:			
	Overall Total		Oklahoma City Businesses		Tulsa Businesses		More Than 500		Less Than 500	
Method of Training	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
In-house formal training programs	41.4	2	52.0	1	35.5	2	36.5	2	50.5	2
In-house (informal) on the job training programs	47.7	1	49.7	2	46.6	1	48.9	1	65.8	1
Off site (but company sponsored) training programs	20.7	3	22.0	3	19.8	3	14.2	3	35.0	3
Off site non-company sponsored training programs	10.5	4	4.8	5	14.5	4	10.1	4	18.2	4
Correspondence studies	2.6	7	1.0	7	4.2	7	4.4	7	3.0	7
College credit courses	7.2	5	8.4	4	6.4	5	6.4	5	15.1	5
College non-credit workshops	3.8	6	2.7	6	4.7	6	5.4	6	4.8	6

Note: Percent (%) are mean percentages.

TABLE V

COMPARISON OF 1977 PROJECTED PARTICIPATION IN FORMAL AND INFORMAL TRAINING PROGRAMS BY TYPE OF TRAINING AND BY LOCATION OF BUSINESS AND NUMBER OF EMPLOYEES

	Distribution by Location and Number of Employees																	
	Total				Oklahoma City				Tulsa				Greater Than 500				Less Than 500			
Type of Training*	Formal		Informal		Formal		Informal		Formal		Informal		Formal		Informal		Formal		Informal	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
a.	42.3	1	63.6	1	46.1	1	54.6	4	40.7	1	67.9	1	36.8	1	75.3	1	61.4	1	68.5	1
b.	24.5	2	42.9	2	42.2	2	81.3	1	18.2	3	26.9	3	17.6	2	29.2	3	41.3	2	53.9	2
c.	15.4	5	23.8	4	21.0	4	51.5	2	13.3	6	18.8	4	9.5	6	20.5	5	30.5	3	46.6	3
d.	15.1	6	23.2	5	29.5	3	54.3	5	6.6	7	7.8	7	7.6	7	13.1	7	27.3	4	31.8	5
e.	14.7	7	16.7	7	16.2	7	22.2	7	14.0	5	14.8	6	13.4	4	14.7	6	20.5	7	14.8	7
f.	16.6	4	21.7	6	17.5	6	37.1	6	16.2	4	18.1	5	12.8	5	21.6	4	21.9	6	20.1	6
g.	19.5	3	39.7	3	17.9	5	56.8	3	20.2	2	32.9	2	14.7	3	37.7	2	26.9	5	28.0	4

*Type of training:

a. Safety training
b. New technical training or skill training
c. Motivational training
d. Sales training
e. Supervisory training
f. New job training
g. Training or upgrade on present job

Note: Percent (%) are mean percentages.

informal training programs. However, large businesses gave supervisory training a ranking of fourth with an average of 13.4 percent of their employees to receive supervisory training through formal instruction. Ranking no lower than third by any group and with an overall ranking of second both formal and informal was new technical training or skill training. It was reported however, that while 24.5 percent of all employees would receive formal training in that area, 42.9 percent would be receiving informal training. Ranking third, training or upgrade on present job showed similar figures with 19.5 percent of all employees projected to receive formal training and 39.7 percent to receive informal training.

Table VI presents a comparison of the mean responses for selected types of training by location of business and number of employees. This table compiles the mean responses and rankings as given in tables II and III. Table VI provides no new data but is shown to provide the reader with a convenient means of comparing mean responses and rankings of types of training as tabulated in tables II and III. For example, the reader is able to scan this one table and compare the mean response to and ranking of "supervisory training" for all response groups. The reader can see for example that all groups except "less than 500" have ranked "supervisory training" first with mean responses ranging from 1.52 for "greater than 500" to 1.36 for the Oklahoma City group. Table VI also shows how each individual response groups mean responses and rankings compare to the overall mean response and ranking for types of training. Here is shown for example that overall, "training or upgrade on present job" was ranked seventh by the overall group with a mean response of .72 and ranked third with a mean response of 1.11 by the "less than 500" response group.

TABLE VI

COMPARISON OF THE MEAN RESPONSES FOR SELECTED TYPES OF TRAINING BY LOCATION OF BUSINESS AND NUMBER OF EMPLOYEES

	Distribution by Location of Business and Number of Employees									
	Mean Response by Location				Mean Response by Number of Employees					
	Oklahoma City		Tulsa		Greater Than 500		Less Than 500		Overall	
Type of Training*	Mean Response	Rank	Mean Response	Rank	Mean Response	Rank	Mean Response	Rank	Mean Response	Rank
a.	1.00	5	1.00	5	.92	6	.85	7	1.00	5
b.	.90	6	1.00	5	1.15	3	.90	6	.94	6
c.	.90	6	1.08	4	1.20	2	.94	5	1.06	4
d.	1.27	2	1.16	2	1.05	5	1.10	4	1.20	3
e.	1.36	1	1.45	1	1.52	1	1.20	2	1.47	1
f.	1.18	3	1.16	2	1.15	3	1.21	1	1.21	2
g.	1.09	4	.50	7	.52	7	1.11	3	.72	7

*Type of Training:

a. Safety training
b. New technical training or skill training
c. Motivational training
d. Sales training
e. Supervisory training
f. New job training
g. Training or upgrade on present job

Business Commitment for Training

The respondents were asked to express a degree of interest in involvement with a community college or technical school (Table VII) to establish training programs for their employees. Possible responses were none (0), some (1) and great (2). Some interest would have an average response of 1.00.

Large businesses had an average response of .90 and small businesses had an average response of .80. Thirty-two percent of the large businesses responded in the none category while 35 percent of the small businesses did the same. Both the large and small businesses had a 50 percent response in the some category.

Tables VIII and IX show the degree of assistance each of the response groups would be willing to give a community college or technical school in each of eight specific areas of assistance. The rank order of the specific types of assistance was determined as follows: The five degrees of assistance (none, some, half, most, all) were weighted (0, 1, 2, 3, 4). An average response was then calculated with a figure of 2.00 indicating a willingness to offer half of the assistance for one of the specific types of assistance listed. An average response of less than 2.00 could be considered a negative response, or an unwillingness to assist.

No type of assistance received an average response greater than 1.59 from the overall group of respondents. There were some minor differences in the area of degree of specific type of assistance between the large and small businesses. Large businesses indicated an average response of 1.00 for type of assistance labeled "buy supplies needed."

TABLE VII

DEGREE OF INTEREST IN INVOLVEMENT WITH A COMMUNITY COLLEGE OR TECHNICAL SCHOOL TO ESTABLISH TRAINING PROGRAMS FOR EMPLOYEES

Group	Distribution by Degree of Interest						Average Response
	None		Some		Great		
	No.	%	No.	%	No.	%	
Oklahoma City	3	25	7	58	2	17	.83
Tulsa	11	38	14	48	4	14	.76
Greater Than 500	6	32	11	50	4	18	.90
Less Than 500	7	35	10	50	3	15	.80

TABLE VIII

COMPARISON OF THE DEGREE OF SPECIFIED TYPE OF ASSISTANCE TO A COMMUNITY COLLEGE OR TECHNICAL SCHOOL BY LOCATION OF BUSINESS

Type of Assistance	Degree of Assistance by Location																					
	Tulsa												Oklahoma City									
	None		Some		Half		Most		All		Average Response	Rank	None		Some		Half		Most		All		Average Response	Rank
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%		
a. Pay instructors salary	11	50	2	9	2	9	1	5	6	27	1.77*	1	6	52	2	16	2	16	0	0	2	16	1.16*	7
b. Buy special equipment needed	12	54	5	23	2	9	1	5	2	9	.91	5	6	47	3	23	2	15	0	0	2	15	1.15	8
c. Buy supplies needed	12	52	2	10	4	17	1	4	4	17	1.26	4	4	37	3	27	2	18	0	0	2	18	1.36	2
d. Pay for course development	13	57	5	22	1	4	0	0	4	17	1.00	4	4	37	3	27	2	18	2	18	0	0	1.18	6
e. Pay for secretarial help	17	77	3	14	0	0	0	0	2	9	.50*	8	5	42	2	17	3	24	0	0	2	17	1.33*	4
f. Pay for course administration	11	48	5	22	1	4	0	0	6	26	1.35	2	4	37	3	27	2	18	0	0	2	18	1.36	2
g. Pay rent for classroom space	15	68	3	14	1	4	0	0	3	14	.77	6	3	27	4	37	2	18	0	0	2	18	1.45	1
h. Pay for course advertisement	17	77	1	5	1	4	0	0	3	14	.68*	7	5	43	3	25	2	16	0	0	2	16	1.25*	5

*Significant at the 0.05 level

TABLE IX

COMPARISON OF THE DEGREE OF SPECIFIED TYPE OF ASSISTANCE TO A COMMUNITY COLLEGE OR TECHNICAL SCHOOL BY NUMBER OF EMPLOYEES

Degree of Assistance by Number of Employees

Type of Assistance*	Greater Than 500										Less Than 500										Overall Total	
	None		Some		Half		Most		All		Average Response	Rank	None		Some		Half		Most		All		Average Response	Rank	Average Response	Rank
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%				
a.	10	67	1	7	0	0	0	0	4	26	1.30	2	10	56	3	17	1	5	1	5	3	17	1.20	3	1.20	2
b.	12	74	2	13	0	0	0	0	2	13	.75	7	9	47	6	32	1	5	1	5	2	11	1.10	4	.90	5
c.	10	62	3	19	0	0	0	0	3	19	1.00	4	8	42	3	16	3	16	1	10	3	16	1.60	1	1.07	3
d.	10	58	4	24	0	0	1	6	2	12	1.07	3	10	59	4	23	1	6	0	0	2	12	.80	7	.79	6
e.	12	70	2	12	1	6	0	0	2	12	.82	5	11	65	4	23	0	0	0	0	2	12	.70	8	.74	8
f.	7	47	3	20	1	7	0	0	4	26	1.67	1	8	42	5	26	2	11	0	0	4	21	1.52	2	1.59	1
g.	11	69	3	18	0	0	0	0	2	13	.78	6	10	59	3	18	1	6	0	0	3	17	1.00	5	.96	4
h.	12	74	2	13	0	0	0	0	2	13	.71	8	12	67	2	11	1	6	0	0	3	16	.90	6	.75	7

* Type of Assistance:

a. Pay instructors salary
b. Buy special equipment needed
c. Buy supplies needed
d. Pay for course development
e. Pay for secretarial help
f. Pay for course administration
g. Pay rent for classroom space
h. Pay for course advertisement

Small businesses gave this same type of assistance a 1.60 average response. Small businesses ranked this type of assistance number one while large businesses had it ranked fourth. There was closer agreement on type of assistance labeled "pay instructors salary." Large business gave it an average response of 1.30 and small business gave it an average response of 1.20. They also ranked it second and third respectively. A comparison of the degree of assistance for a specific type of assistance between the Oklahoma City and Tulsa businesses showed major differences in the ranking of the eight areas of specific assistance. Tulsa ranked "pay instructors salary" first while Oklahoma City ranked it seventh. "Pay rent for classroom space" was ranked sixth by Tulsa and first by the Oklahoma City businesses. The Tulsa businesses ranked "pay for secretarial help" number eight of eight choices with an average response of .50. The Oklahoma City businesses ranked it fourth with an average response of 1.33. This was significant at the .05 level as were the findings for "pay instructors salary" and "pay for course advertisement." The major differences between the two city responses and minor differences between business size comparisons should be noted.

Table X is an indication of commitment to employee training needs through a dollar expenditure. The respondents were asked to project the cost per employee for training for the year 1977. The respondents were asked to estimate both the cost for in-house and the cost for off-site training. The table gives the range of responses, as well as the mean and median responses for all response groups. A comparison between large and small businesses shows the small businesses with the larger expenditure. Of significance is the range for in-house training.

TABLE X

ESTIMATE OF TOTAL TRAINING COST PER EMPLOYEE FOR THE YEAR 1977
BY LOCATION AND BY NUMBER OF EMPLOYEES

	Response by Group				
		Location		Number of Employees	
Type of Training	Overall Total	Oklahoma City	Tulsa	Greater Than 500	Less Than 500
In-house					
Range	$5.00 - $5,000.00	$50.00 - $5,000.00	$5.00 - $1,500.00	$5.00 - $ 600.00	$30.00 - $5,000.00
Mean	$419.20	$ 937.50	$247.50	$152.69	$669.50
Median	$250.00	$ 175.00	$165.00	$100.00	$300.00
Off site					
Range	$1.00 - $5,000.00	$ 1.00 - $5,000.00	$1.00 - $1,500.00	$1.00 - $1,500.00	$20.00 - $5,000.00
Mean	$589.30	$1,018.75	$397.83	$277.66	$856.42
Median	$350.00	$ 300.00	$345.00	$125.00	$350.00

Large businesses indicated a range of $30.00 to $5,000.00 The median figures were also consistent in this category with small businesses having a median of $300.00 and large businesses a median expenditure of $100.00. Indications of expenditures between in-house and off-site showed much smaller differences. Small businesses had a $300.00 median figure for in-house and a $350.00 median value for off-site training. The largest difference in median dollars alloted for training between in-house and off-site training programs was by Tulsa businesses. Here, the median for in-house was $165.00 while the off-site median was $345.00 more than double the in-house figure.

The smallest dollar figure given was $1.00 per employee. This was for off-site training and both the Tulsa and Oklahoma City businesses indicated such a figure. These overall figures were the projected or estimated expenditures per employee and represent a very large dollar commitment to meet employee training needs by business.

Do businesses reimburse their employees for training programs attended? Table XI would seem to indicate a positive yes to that question. The respondents were asked to indicate the amount of reimbursement they would give (none, some or all). They were asked which of these amounts would be for (a) cost of training, (b) cost of transportation and (c) cost of materials needed for program. Fifty-five point three percent of the respondents indicated they would reimburse all of the amount for cost of transportation. There was a 69.3 and 69.2 percent response to all reimbursement for the other two categories. There was no major difference between any group response therefore only the total groups responses were given in the table. The indication being that reimbursement of some type is almost assured all employees who attend training programs.

TABLE XI

EXTENT OF BUSINESS REIMBURSEMENT TO EMPLOYEE FOR TRAINING COSTS

Type of Reimbursement	Total Groups Response — Amount of Reimbursement					
	None		Some		All	
	No.	%	No.	%	No.	%
Cost of training program	4	10.2	8	20.5	27	69.3
Cost of transportation	8	21.0	9	23.7	21	55.3
Cost of materials needed for program	3	7.7	9	23.1	27	69.2

Responses by groups to the question of the problem of transportation for their employees when attending training programs showed 89 percent of the total response indicated that transportation was not a problem for their employees in their attempt to attend training programs. There were no major differences between the results of any of the response groups.

The respondents were asked to check off on the survey form, the farthest distance an employee had been sent for training. There were several responses indicating employees had been sent to Europe, one to Hawaii and one to Singapore from Tulsa to qualify as the farthest distance an employee was sent for training. The most frequent response to this question was "throughout the United States." There was no reason to list these responses by group since there was no major difference between responses by any groups.

Table XII shows the responses to the question of employee time off for the purpose of attending a training program. The length of time off as well as type of time off (with pay, with reduced pay and with no pay). There were no major differences between group responses therefore only the total group response is shown. The respondents could check more than one box for this question so the numbers may vary. It is shown here that the time off to attend a training program may vary, but the employee is fairly sure he will have his time off with pay. The majority of responses indicate that time off with pay has been given for lengths of time from one day to one year, with one month being the mode figure. The most frequent response of those checking the "other" category was two weeks. Time off with pay does not appear to be a problem for employees wishing to attend training programs.

TABLE XII

TYPE AND LENGTH OF TIME OFF GIVEN EMPLOYEES TO ATTEND TRAINING PROGRAMS

	Distribution by Type of Time Off		
Length of Time Allowed	With Pay	With Reduced Pay	With No Pay
1 day	2	--	--
1 week	11	--	--
1 month	15	--	--
1 year	3	--	--
Other	11	11	11

Table XIII provides an overall comparison of the rankings by groups of the needs versus the projected participation in a particular type of training. This table shows where business indicated it had a need for a type of training as well as the type of training it projected its employees would be receiving. This table provides only the rankings as gathered from previous tables in the chapter. There seems to be a degree of inconsistency or disagreement on this table. Types of training given the highest rank for need do not always have the highest rank for projected participation. What the table seems to be saying is that where business has a high percentage of projected participation, its need for that type of training is very low. The area of new job training (f) maintained a consistent high rank for need (3 or better) but was ranked no higher than four for projected employee participation. Training or upgrade on present job (g) held a low overall rank for need (seven of seven) but was ranked third in projected employee participation. There was a slight difference between the needs ranking between large and small businesses. Motivational training was ranked second by large businesses and sixth by small businesses as a need. New job training was ranked third for need by the large businesses and first by small businesses. Differences between Tulsa and Oklahoma City businesses were very small except in need for "training or upgrade in present job." Oklahoma City businesses ranked this fourth while Tulsa ranked it seventh as a training need.

TABLE XIII

COMPARISON OF RANKINGS OF EMPLOYEE TRAINING NEED VERSUS PROJECTED EMPLOYEE TRAINING PARTICIPATION BY LOCATION OF BUSINESS AND BY NUMBER OF EMPLOYEES

	Ranking by Location and Number of Employees									
	Location				Number of Employees				Total	
	Oklahoma City		Tulsa		More Than 500		Less Than 500			
Type of Training	Need	Projected Participation	Need	Projected Participation	Need	Projected Participation	Need	Projected Participation	Need	Projected Participation
a.	5	1	5	1	6	1	7	1	5	1
b.	6	2	5	3	3	2	5	2	6	2
c.	6	4	3	6	2	6	6	3	4	5
d.	2	3	4	7	5	7	4	4	3	6
e.	1	7	1	5	1	4	2	7	1	7
f.	3	6	2	4	3	5	1	6	2	4
g.	4	5	7	2	7	3	3	5	7	3

a. Safety training
b. New technical training or skill training
c. Motivational training
d. Sales training
e. Supervisory training
f. New job training
g. Training or upgrade on present job

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to identify the employee training needs, plans and commitments of selected Oklahoma businesses. It was established that only if this process were done, could the educational community adequately assist the industrial community in the fulfilling of those educational requirements. To be sure that the businesses surveyed would be able to adequately respond to the questionnaire, the population of the study was limited to training officers of the businesses who are members of the American Society for Training and Development, (ASTD). By using the ASTD membership of two metropolitan areas of Oklahoma, it was felt an adequate survey of those areas could be conducted.

Specifically three major objectives of this study were:

1. To identify the types of training needed by Oklahoma businesses.

2. To identify the plans of Oklahoma businesses for meeting those needs.

3. To identify and document the possible Oklahoma businesses' commitment to assist the educational community in the establishing of training programs for the upgrading of the professional workforce.

A survey instrument was developed with the assistance of educators and business training officers. The responses to that instrument were tabulated and presented in Chapter IV. Through the responses of those who took part in the study, the major objectives of this study have been met.

Summary

A summary of the data tabulated and presented in Chapter IV is given here. The first objective of this study was to identify the types of training required by selected Oklahoma businesses. When asked to respond to the questions on the survey instrument, asking for the degree of need for a particular type of training, the area indicated most frequently was supervisory training. Supervisory training was ranked first with a total mean response of 1.47. Ranking second on degree of need was upgrading. This would mean training needed to upgrade the present worker on his present job. The businesses of less than 500 hundred employees ranked upgrading as their number one need. These businesses ranked supervisory training as their number two need. It was indicated that both supervisory training and training to upgrade this present worker were very real needs of the businesses surveyed. New skill training and new technical training were both ranked very low as to immediate training needs.

A second objective of this study was to identify the plans of the Oklahoma businesses surveyed for meeting their training needs. Several questions were asked to arrive at the answers. The respondents were asked to indicate the probable percentages of their employees who would receive various methods of training. Of the seven methods listed on the questionnaire, in-house (informal) on the job training was rated with the highest mean percentage, greater than forty-seven percent. In-house formal company training programs ranked a close second. On the other end of the scale, college non-credit workshops and correspondence studies were given a solid six-seven ranking by all groups responding.

The respondents were asked to predict the degree of participation in several types of training and whether or not the participation would be formal or informal. Only twice, and both times by businesses with less than 500 employees, was formal training selected over informal training for any type of training to be received. One selection was in the area of supervisory training, and the other, new job training. Ranking highest in type of training to be received was safety training followed by new technical training or skill training.

From the data compiled, it would appear that the businesses surveyed have formulated plans for the meeting of their employees training needs. The responses also indicated that there was a willingness to reimburse employees for expenses incurred in pursuing their training needs. There was an indication that time off would not be a problem for employees who are attending training programs. The responses to the question of expenditure per employee for a years training showed an average expenditure of over $500 per employee for training purposes. This is a fairly high figure and indicates that the businesses surveyed have given a dollar value to their plans for meeting their employee training needs.

The last major objective of this study was to identify and document the possible Oklahoma business commitment to assist the educational community in the establishing of training programs of the upgrading of the professional workforce. The respondents to the survey indicated a very low willingness to assist the community colleges or technical schools in the establishing of training programs. Thirty-two percent of all respondents indicated no interest whatsoever in assisting. Fifty-one percent did express some interest with only 17 percent

indicating a great interest in assisting the schools. When asked to specify which type of assistance they would most likely give to the schools, the overall group response ranked "paying the instructors salary" as number two. They also indicated they would be least willing to pay for course advertisement.

For the most part, there was general agreement between most of the respondents. It would seem there were definite needs for employee training programs. The general business plans to meet these needs were to (1) allocate funds, (2) assist the employee with time off and reimbursements for expenses and (3) to provide as much of the training as possible through in-house informal training or by formal programs in-house conducted by the businesses themselves. When required, outside schools and training programs would be utilized, but most companies would not go too far to assist schools in establishing special programs.

Table XIV is a summary of the rankings by order of ranking of the total response group to the specifics of the survey objectives. Table XIV gives the rankings by group to the responses of employee training needs, plans and commitments of the selected Oklahoma businesses surveyed in this study. Here, the major findings of the study are presented in tabular form. Some of the conclusions and recommendations presented in the remainder of this chapter may be referred back to Table XIV.

Conclusions

The following conclusions may be drawn from the data compiled through this study.

As can be seen from Table XIV, supervisory training ranked as the number one type of training required. Understandably, the only

TABLE XIV

SUMMARY OF RANKINGS BY ORDER OF RANKING OF TOTAL RESPONSE GROUP, OF TRAINING NEEDS, PLANS AND COMMITMENTS BY LOCATION OF BUSINESS AND NUMBER OF EMPLOYEES

Survey Objectives (specific responses)	Distribution of Ranking by Groups: Ranking by Location and Number of Employees				
	Oklahoma City	Tulsa	More Than 500	Less Than 500	Total Group
1. Employee Training Needs (type of training)					
Supervisory training	1	1	1	2	1
Upgrading	3	2	3	1	2
Motivational training	2	4	5	4	3
New skill training	6	3	2	6	4
Safety training	5	5	6	7	5
New technical training	6	5	3	5	6
Sales training	4	7	7	3	7
2. Training Plans					
a.) Method of Training					
In house (informal) on the job training program	2	1	1	1	1
In house formal training programs	1	2	2	2	2
Off site (but company sponsored) training programs	3	3	3	3	3
Off site non-company sponsored training programs	5	4	4	4	4
College credit courses	4	5	5	5	5
College non-credit workshops	6	6	6	6	6
Correspondence studies	7	7	7	7	7
b.) Participation in Type of Training (formal)					
Safety training	1	1	1	1	1
New technical training or skill training	2	3	2	2	2
Training or upgrade on present job	5	2	3	5	3
New job training	6	4	5	6	4
Motivational training	4	6	6	3	5
Sales training	3	7	7	4	6
Supervisory training	7	5	4	7	7

TABLE XIV (Cont'd)

Survey Objectives (specific responses)	Distribution of Ranking by Groups Ranking by Location and Number of Employees Oklahoma City	Tulsa	More Than 500	Less Than 500	Total Group
c.) Participation in Type of Training (informal)					
Safety training	4	1	1	1	1
New technical training or skill training	1	3	3	2	2
Training or upgrade on present job	3	2	2	4	3
Motivational training	2	4	5	3	4
Sales training	5	7	7	5	5
New job training	6	5	4	6	6
Supervisory training	7	6	6	7	7
3. Commitment (degree of assistance)					
Pay instructors salary	7	1	2	3	2
Pay for course administration	2	2	1	2	1
Buy supplies needed	2	3	4	1	3
Pay rent for classroom space	1	6	6	5	4
Buy special equipment needed	8	5	7	4	5
Pay for course development	6	4	3	7	6
Pay for secretarial help	4	8	5	8	8
Pay for course advertisement	5	7	8	6	7

group not ranking supervisory training as its top need was the less than 500 employee group. This can be understood since the small business most likely has its supervisory structure pretty well fixed for some period of time. The larger businesses, of course, have a need to keep people moving into new supervisory positions thus a need for continued training in this area.

Upgrading training was ranked second by the respondents. Of some concern to this writer was the low ranking given to new technical training. This type of training was ranked sixth out of seven items. If there truly is that little need among Oklahoma businesses for new technical training, these businesses are in very good shape compared to what the literature reveals.

To identify the plans industry has for meeting its training needs, Table XIV and Table III of Chapter IV will be discussed. These tables give a comparison of the rankings of types of training employees will be receiving. Here, the number one need, supervisory training, ranks very low, at or near the bottom of the list. Care must be exercised here, however since the rankings were based on total employee percentages and a low percentage would give a low rank. Table IV of Chapter IV also showed that approximately 15 percent of all employees who will receive training will receive supervisory training. This figure now seems to be in line with the probable percentage of supervising personnel employed by the businesses.

The information compiled in Table III shows a definite low percentage of employees who will receive new job training. This is as should be expected. The type of training to upgrade for the present job shows a fairly high percentage, we also see that this upgrade type of training

will be done mostly on an informal basis. In Table X is shown the estimated cost per employee for training for the year 1977. As is attested by these figures, the businesses surveyed not only indicated a training need but are showing that they are making a definite commitment to fulfilling those needs. Table X shows a very close dollar figure for both in-house and for off-site training. This indicates that the businesses are expending a great deal of money to train their own employees in-house. The educational community needs to take this into account when planning their continuing education offerings. The findings seemed to show a willingness by business to reimburse their employees for training programs they attend and to allow adequate time off (usually with pay) for employees to attend off-site training programs.

The section of this study that identified possible business commitment to the educational community turned up some very bad news for educators of adult continuing education programs. Table VII is the compilation of responses to the direct question asking for degree of interest in assisting the educational community in establishing training programs for employees of the businesses surveyed. The responses were most negative, with the total group response showing 84 percent saying no interest or some interest. Even though the majority of responses were in the some interest category, a comparison between no and great shows a tendency toward the no category. Couple the information shown here with that shown in Table II and the picture becomes even more clear. Table XIV shows the overwhelming majority of employees will receive their training informally in-house, not in-formal training programs. There seems to be a definite preference to conduct the

training programs within the business. A statement made in Chapter II of this study by Katz (7) issued a warning that if universities fail to meet the challenges, the trend toward establishment of training programs within businesses would continue. The data would definitely seem to support the warning issued.

Attention is called to Tables VIII and IX. Here the degree of assistance a company may be expected to offer in specific categories is shown. Even if one is optimistic toward the data of Table VII, Tables VIII and IX show very little is offered in the way of specific assistance. Of the eight specific categories of assistance listed, the total groups responses showed seven of the categories receiving greater than 50 percent checking response "none." The one category receiving less than a 50 percent "none" response had a 48 percent response. While Table VII would seem to indicate some interest in assistance, the results of Tables VIII and IX would seem to indicate at least 50 percent of the respondents would not assist in any of the areas listed on the survey questionnaire. The larger of the two geographic groups surveyed (Tulsa) showed a greater degree of non-assistance than the total responses. Tables VIII and IX show that in the eight categories of assistance, not one faired better than a 56 percent response in the "none" column.

Table XIV, number three, shows the rank order by groups of the specific categories of assistance industry would be most willing to give to education. From the ranking of the total response group, it would seem that item "f" (Pay for course administration) and item "a" (Pay for instructors salary) ranked first and second respectively. At first, this seemed strange to the writer. Here are people showing very

little interest in assisting schools with educational programs, yet they would most prefer to offer assistance in the way of administrative and salary costs. A quick scan of the other six categories shows them to be for the most part items that might be easily "padded" in a budget. Equipment and supplies for example might be used by schools to supplement the other programs at the institution. Not too many businesses could probably put a true dollar value on course development. On the other hand, it should be very easy to figure a salary for an instructor. His yearly salary being paid by the school is known and a suitable hourly rate can be established from that figure. The ranking of these items is very significant for future educational proposals to businesses and will be discussed in the recommendations of this chapter.

Businesses do not intend to pay for advertising, that point is made very clear. There is probably a fear here that schools will use the businesses' money to advertise its name more than the program. There is probably also a feeling that if the program is being developed for the business there is no need to advertise it.

One final conclusion is drawn from the findings tabulated in Table XIV. Here we see that there is a greater degree of assistance most likely to come from the smaller businesses. The difference between the two (large and small businesses) is slight, but it is noticed that the small businesses indicated responses in all categories at all five degrees of assistance. There is also a smaller percentage checking the "none" responses. For a clearer understanding of these data, attention is called back to Chapter II of this study. First Katz (7) said that extensive training programs will generally be limited to larger firms. He continued that for the smaller businesses the great burden of training

must continue to be carried by the schools. Second, the Educational Public Commission of the NEA (20) stated that even though large businesses develop their own training programs the public schools are not released from their responsibility in the field. The NEA goes on to say that the public schools must still serve the smaller businesses in their training programs. Here we see evidence of the need for education to work with small businesses and through the results of this study an indication by small businesses to be more willing to assist the schools in their effort to create educational programs for the workforce.

Summarily, it is concluded from this study that:

1. There is a definite need by the businesses surveyed for training of their employees. This attested by the large percentage of employees who will receive training.

2. Oklahoma businesses have definite plans to fill the training needs of their employees.

3. Oklahoma businesses have initiated definite programs for the training of their employees.

4. Much of the training will be carried out in-house by the companies themselves.

5. It is the general consensus of the businesses surveyed that they would offer little assistance to the educational community for the purpose of establishing training programs for their employees.

6. There is more interest in assistance from the smaller businesses than from the larger businesses.

7. That the businesses interviewed are willing to allocate both adequate amounts of time and money for the training needs of their employees.

Recommendations

The recommendations offered here are based on the findings of this study both from the review of literature and from the data compiled. The recommendations, as with the data, were based on a very select population and no inference can or should be made that these findings may be generalized beyond that population.

It is rather hoped that this study will serve as a guide for others who wish to pursue the problem of retraining and upgrading the workforce through the establishment of adult continuing education programs.

Further Studies

It is recommended that further studies of this type should be conducted. Those conducting the studies should select respondents from a particular locale. This will help keep the training programs more homogeneous and reduce costs. There must be a continual assessment of the adult continuing educational needs of the present workforce. This information needs to be made public, possibly through a publication to explain the needs.

The assessment of these needs could be done through a cooperative effort of local ASTD chapters and state departments of education. To this end, it is further recommended that a pilot study be undertaken in the state of Oklahoma using the State Department of Vocational and Technical Education and a panel of ASTD members chosen from throughout the state. This pilot study should be conducted among both businesses affiliated with ASTD and businesses with no ASTD affiliation.

The type of person who was contacted in this study indicated an unwillingness to participate in a mail survey. It is recommended that future surveys be conducted by phone or in person. If possible, a number of people responsible for the training programs in their respective businesses may be contacted during ASTD chapter meetings.

It is recommended that the survey instrument be kept short. Questions of need should have priority. The instrument should only be used as a general guide and in person visits should be made before any training programs are initiated.

Educational Responsibilities

As shown in this study a major portion of employee training to be undertaken by Oklahoma businesses will be conducted in-house. The businesses surveyed indicated they would be spending about the same amount of dollars per employee for in-house training as they would for off-site training. In light of these findings, it is recommended that the educational community reappraise its position and its responsibility to assist in the continuing educational plans of Oklahoma businesses. The educational institutions must do a better job of selling business on the advantages of using professional educators. The schools must become more atuned to the needs of the present workforce. The area of continuing education must become as important to the post high school educational institutions as are their undergraduate degree granting programs. The problems of retraining and upgrading are very real, and it must be the task of the educational community to provide assistance to retrain and upgrade the present workforce. Educational institutions who wish to take part in the adult continuing educational plans of the

present workforce must develop instructional material and programs reflecting the present state of the art which will fulfill the immediate needs of that workforce.

Business Responsibilities

This study was a survey of selected Oklahoma businesses. Those businesses responding sent a clear message to the educational community. For the most part, they indicated they do have training needs for their present employees. They also indicated that their plans for meeting these needs included the expenditure of money for training and that they were willing to assist the employee, through reimbursement and time off, in his attempt to obtain additional training. To the schools they said we will use your programs if they fit, but we will not assist you in establishing training programs for our employees. The businesses further said they intended to do a major portion of their own training in-house.

It is recommended that the business community carefully weigh the cost of maintaining individual training programs versus the pooling of their resources through a single established school to operate a single common training program. It is also recommended that the business community make their employee training needs known to the educational community and that they seek out and use the public educational system for a larger percentage of their overall training needs.

It is further recommended that in the area of highly specialized low participation training programs, the businesses offer assistance to the schools in the acquiring of special equipment, etc.

Cooperation

Businesses with training needs should make the first contacts with schools. It is usually easier for businesses to identify a school than for schools to identify businesses with a particular training need. Schools and businesses must share the cost of educational programs. The schools need to become more aware of the needs of adults for continuing education and businesses need to become more atuned to the capacity of schools to assist with training.

It is recommended that in order for the businesses and the educational communities to better work together, a sharing of manpower be established. The educational institutions should use business personnel as lecturers and instructors whenever possible. The businesses should invite faculty and staff of the schools in for discussions of latest equipment and techniques to keep abreast of the latest developments in technology.

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APPENDIX A

INDIVIDUALS WHO ASSISTED IN THE FORMULATION OF THE SURVEY INSTRUMENT

Ms. Pat Kelly - Training Coordinator, C.E. NATCO, Tulsa, Oklahoma

Ms. Rae Jean McCall - Coordinator Adult Education - State Department of Vocational Education, Oklahoma City, Oklahoma

Ms. Carolyn Namie - Director of Continuing Education, Southern Technical Institute, Marietta, Georgia

Mr. J. V. Wilson - Assistant Superintendent and Adult Director, Indian Meridian Vocational Technical School, Stillwater, Oklahoma

Mr. Owen McGruder - Extension Specialist, School of Technology, Oklahoma State University, Stillwater, Oklahoma

Mr. Jack Monks - Extension Specialist, School of Technology, Oklahoma State University, Stillwater, Oklahoma

Mr. Mack Nova - Extension Specialist, Seminole Jr. College, Seminole, Oklahoma

APPENDIX B

THE SURVEY INSTRUMENT

EDUCATIONAL REQUIREMENT SURVEY

Company Name_____Address_____

Type of Business - Service____, Manufacturing____, Utility____, Government____, Other____

Number of Employees in (Tulsa/Okla. City)_____, in total company_____.

Is Tulsa or Oklahoma City Branch Office_____, or Company Headquarters_____.

FOR THE TWELVE MONTH PERIOD BEGINNING JANUARY 1, 1977 and ENDING DECEMBER 31, 1977...

1. What percentage of your employees will attend the following?

a)	In-house formal training programs.	_____
b)	In-house (informal) on the job training programs.	_____
c)	Off site (but company sponsored) training programs.	_____
d)	Off site non-company sponsored training programs.	_____
e)	Correspondence studies.	_____
f)	College credit courses.	_____
g)	College non-credit workshops.	_____

2. What percentage of your employees will receive the following?

		FORMAL	INFORMAL
a)	Safety training.	_____	_____
b)	New technical training or skill training.	_____	_____
c)	Motivational training.	_____	_____
d)	Sales training.	_____	_____
e)	Supervisory training.	_____	_____
f)	New job training.	_____	_____
g)	Training or upgrade on present job.	_____	_____

3. Estimate the cost per employee for training for the year 1977.

a)	For in-house training.	_____
b)	For off site training.	_____

4. What is the longest continuous period of time one of your employees has been given off to attend a training program?

		1 day	1 week	1 month	1 year	Other
a)	With pay	_____	_____	_____	_____	_____
b)	With reduced pay	_____	_____	_____	_____	_____
c)	With no pay	_____	_____	_____	_____	_____

5. What is the extent of your company's training needs in the following areas?

	NONE	AVERAGE	VERY GREAT
a) Safety training.			
b) New technical training.			
c) New skill training.			
d) Motivational training.			
e) Supervisory training.			
f) Up-grading.			
g) Sales training.			

6. To what extent would your company be interested in involving a community college, technical school or other training establishment in the establishing of a training program for your employees?

NO INTEREST_____ SOME INTEREST_____ GREAT INTEREST_____

7. Which of the following would your company be willing to do to establish a training program for your employees at a local community college or at a technical school?

	NONE	SOME	HALF	MOST	ALL
a) Pay instructors salary.					
b) Buy special equipment needed.					
c) Buy supplies needed.					
d) Pay for course development.					
e) Pay for secretarial help.					
f) Pay for course administration.					
g) Pay rent for classroom space.					
h) Pay for course advertisement.					

8. To what extent does your company reimburse employees for:

	NONE	SOME	ALL
a) Cost of training program.			
b) Cost of transportation.			
c) Cost of materials needed for program.			

9. Is transportation a problem for your employees in their attempt to attend training programs? YES_____ NO_____

10. What is the greatest distance your company has ever sent an employee for training?

5 miles_____ 10 miles_____ 100 miles_____ 1000 miles_____

other_____

APPENDIX C

RESPONDENTS

OKLAHOMA CITY AREA

Antec Corporation
Fairview Audiovisual Co.
Long John Silvers
Governors Office
Culp and Associates
Boy Scouts of America
Dorsett Educational Systems Inc.
APCO Oil Corporation
Miller - Norris Co.
John A. Brown Co.
City of Oklahoma City
T. G. & Y. Stores
St. Anthony Hospital
Humpty Supermarkets
Behavior Design Inc.
*

*Several respondents wish to remain anonymous

TULSA AREA

American Airlines
Sun Oil Refinery
First National Bank
4th National Bank
Beverage Products Corp.
Frontier Federal Savings & Loan
Bank of Commerce
T. O. Williamson Inc.
Metropolitan Tulsa Transit Authority
Moton Health Center
Explorer Pipeline
TRANS OK
Gulf Oil Co.
CRA, Inc. (Coffeeville, Kansas)
Sooner Pipe and Supply
Williamsons Co.
Tulsa County Government
Skelly Oil Co.
Oklahoma Steel Casting
Seismograph Service
City of Tulsa
Public Service Co.
Oklahoma Natural Gas
U. S. Corp of Engineers
Phillips Petroleum Co. (NRG)
First Tulsa Bancorp.

TULSA AREA (Cont'd.)

C. E. NATCO
Hillcrest Medical Center
TRW Redor Pump
*

*Several respondents wish to remain anonymous

VITA

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