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**A study of the relationship between job-related training  
programs and organizational commitment at selected Iowa  
companies**

**Schroeder, Mark Alan, Ph.D.**

**The University of Iowa, 1993**

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A STUDY OF THE RELATIONSHIP BETWEEN  
JOB RELATED TRAINING PROGRAMS AND ORGANIZATIONAL COMMITMENT  
AT SELECTED IOWA COMPANIES

by

Mark A. Schroeder

A thesis submitted in partial fulfillment  
of the requirements for the Doctor of  
Philosophy degree in Education  
in the Graduate College of  
The University of Iowa

May 1993

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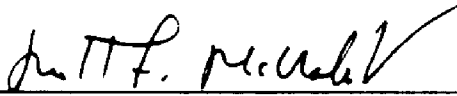
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To my family and friends

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## TABLE OF CONTENTS

	Page
LIST OF TABLES.....	vii
LIST OF FIGURES.....	x
CHAPTER	
I. INTRODUCTION.....	1
Significance of Organizational Commitment and Training.....	1
Statement of Purpose.....	3
Statement of the Problem.....	3
Research Questions and Related Hypotheses.....	4
Research Limitations.....	6
Definition of Terms.....	7
II. REVIEW OF THE LITERATURE.....	9
Introduction.....	9
Defining Organizational Commitment and Training.....	9
Voluntary Training and Commitment.....	10
Management Training and Commitment.....	11
Employee Development and Commitment.....	13
Gender, Training and Commitment.....	16
Usefulness of Training, Ability to Perform Work, and Commitment.....	17
Age of Employees, Length of Service, and Commitment.....	18
Type of Instruction, Type of Company, Number and Length of Training Programs and Commitment.....	21
Completion of Training Programs, Educational Level of Employees, Position in the Organization, and Commitment.....	23
Measuring Organizational Commitment.....	25
Positive and Negative Consequences of Organizational Commitment.....	26
Conclusions.....	27
Summary.....	28
III. METHODOLOGY.....	30
Overview.....	30
Research Design.....	30
Data Collection.....	31

	Page
Descriptive Statistics and Data Analysis.....	31
Measurement.....	33
<b>IV. RESULTS.....</b>	<b>36</b>
Introduction.....	36
Description of the Sample.....	36
Dependent Variables.....	43
Research Question One.....	44
Hypothesis One: Number of Training Programs.....	46
Hypothesis Two: Type of Training Programs.....	46
Hypothesis Three: Length of Training Programs...	48
Hypothesis Four: Completion or Non-Completion of Training Programs.....	48
Hypothesis Five: Voluntary or Mandatory Nature of Training Programs.....	50
Hypothesis Six: Type of Instruction Used in Training Programs.....	51
Hypothesis Seven: Training Program Useful in Current Company Or Useful in Other Companies as Well.....	53
Hypothesis Eight: Ability to Perform Work With or Without Training Programs.....	53
Research Question Two.....	56
Hypothesis Nine: Gender of the Employees.....	57
Hypothesis Ten: Position of the Employees.....	57
Hypothesis Eleven: Age of the Employees.....	58
Hypothesis Twelve: The Company in Which Employees Work.....	60
Hypothesis Thirteen: Length of Service of Employees.....	61
Hypothesis Fourteen: Educational Level of Employees.....	62
<b>V. DISCUSSION OF RESULTS.....</b>	<b>66</b>
Introduction.....	66
Summary.....	66
Summary of Findings.....	67
Research Question One.....	67
Number of Training Programs.....	69
Type of Training Programs.....	70
Length of Training Programs.....	71
Completion or Non-Completion of Training Programs.....	71
Voluntary or Mandatory Training.....	72
Type of Institution.....	73
Usefulness of Training.....	74
Ability to Perform Work.....	74

	Page
Research Question Two.....	15
Gender.....	75
Position.....	77
Age.....	78
Company.....	79
Length of Service.....	80
Educational Level.....	81
Conclusions.....	81
Implications for Future Research.....	83
APPENDIX A: EMPLOYEE SURVEY.....	88
APPENDIX B: SUBSET OF SURVEY QUESTIONS.....	102
REFERENCES.....	105

LIST OF TABLES

Table	Page
1. Measures of Training Programs in Which Employees Participated.....	34
2. Independent Variables Relating to Individual Employees...	34
3. Employee Breakdown by Company, Gender, Age, Educational Level, Length of Service, and Position.....	37
4. Number of Training Programs in Which Employees Participated (Mean Number of Training Programs = 6.3)....	39
5. Most Recent Type of Training Program in Which Employees Participated.....	40
6. Length of Most Recent Training Program in Which Employees Participated (Mean Length of Training Program = 12.1 Weeks).....	40
7. Completers and Non-Completers of Training Programs.....	41
8. Voluntary or Mandatory Nature of Training Programs in Which Employees Participated.....	42
9. Type of Instruction Used in Training Programs in Which Employees Participated.....	42
10. Employees Who Could or Could Not Perform Their Current Job Without the Training Programs.....	42
11. Training Program Useful in Current Company or Useful in Other Companies.....	43
12. Summary of Employee Responses to Questions About Attitudes Toward the Immediate Work Group, the Company, and Overall Organizational Commitment.....	45
13. Correlation of the Number of Training Programs in Which Employees Participated by Their Attitudes Toward the Work Group, the Company, and Organizational Commitment.....	47
14. One-way Analysis of Variance for Employee Attitudes Toward the Work Group, the Company, and Organizational Commitment by Most Recent Type of Training.....	49

	Page
15. Correlation of the Length of Training Programs in Which Employees Participated by Their Attitudes Toward the Work Group, the Company, and Organizational Commitment.....	50
16. Completion or Non-Completion of Training Programs by Employee Attitudes Toward the Work Group, the Company, and Organizational Commitment.....	51
17. Voluntary or Mandatory Nature of Training Programs by Employee Attitudes Toward the Work Group, the Company, and Organizational Commitment.....	52
18. One-way Analysis of Variance for Employee Attitudes Toward the Work Group, the Company, and Organizational Commitment by Type of Instruction Used in Training Programs.....	54
19. Perceived Usefulness of Training Programs in Employees Current Company or Other Companies by Employee Attitudes Toward the Work Group, the Company, and Organizational Commitment.....	55
20. Ability of Employees to Perform Their Work With or Without Training Programs by Employees Attitudes Toward the Work Group, the Company, and Organizational Commitment.....	56
21. Gender of Employees by Attitude Toward the Work Group, the Company, and Organizational Commitment.....	58
22. One-way Analysis of Variance for Employee Attitudes Toward the Work Group, the Company, and Organizational Commitment by Position.....	59
23. Correlation of the Age of Employees by Their Attitudes Toward the Work Group, the Company, and Organizational Commitment.....	61
24. Company in Which Employees Work by Attitudes Toward the Work Group, the Company, and Organizational Commitment...	62
25. Correlation of the Length of Service of Employee by Their Attitudes Toward the Work Group, the Company, and Organizational Commitment.....	62
26. Educational Level of Employees by Attitudes Toward the Work Group, the Company, and Organizational Commitment...	63

27. Summary of Significant Findings for Each of the  
Fourteen Hypotheses by Attitudes Toward the Work Group,  
the Company, and Overall Organizational Commitment..... 65

## LIST OF FIGURES

Figure	Page
1. Stages in the Development of Organizational Commitment.....	10
2. Major Determinants of Initial Commitment to the Organization.....	14
3. Major Determinants of Commitment During the Early Employment Period.....	15
4. Major Influences of the Continuing Development of Organizational Commitment During the Later Career Stages.....	16

CHAPTER I  
INTRODUCTION

Significance of Organizational Commitment and Training

Organizational commitment has been the subject of much study in an attempt to explain the behavior of individuals in the workplace. Mowday, Porter, and Steers (1982) have suggested that "employee commitment to an organization should be a fairly reliable predictor of certain behaviors, especially turnover" (p. 19). They added that committed people "are thought to be more likely to remain with the organization and to work toward organizational goal attainment" (p. 19). The concept of organizational commitment, they noted, is

intuitively appealing to both managers and behavioral scientists...an increased understanding of commitment may help us comprehend the nature of more general psychological processes by which people choose to identify with objects in their environment and to make sense out of this environment. It helps us to some degree to explain how people find purpose in life (p. 19)

Training represents a significant investment of time and resources as organizations try to keep pace with new technology and increased competition. Investments in training will require a new way of thinking about how we do business in America.

Gonzales (1990) has contended that

the vast majority of American employers are not moving to high performance work organizations, nor are they investing in training their non-managerial employees for these new kinds of organizations. Most remain committed to mass production models that do not require



high skills of their employees, models that are ill-suited to compete in a world market that demands high quality, variety, and responsiveness to changing consumer tastes, and rapid new product introductions. Other nations are moving much more quickly to high-performance models and are training front-line workers, funded in part by public revenues (p. 2).

The choice we face according to Gonzales (1990) is to become a "nation of high skills or one of low wages" (p. 2).

Organizational commitment and training, two factors in organizational improvement, have received a great deal of attention in America in the past few years. Business leaders accept the notion that a global economy now exists, and for the United States to remain competitive in this environment, change is inevitable. The organizations that meet this challenge must create a positive business climate that contributes to business growth. A wide range of initiatives, both private and public, have surfaced in the last decade to help create and maintain this environment.

A major contributor to business growth is the quality and productivity of the American work force. Organizations through the years have attempted to discover the optimum way to utilize and capitalize upon human resources. Corporate leaders have looked at commitment, motivation, satisfaction, environment, mental and physical capacities, and related factors in a continuing search for ways to make workers more productive, drive production costs down, and ultimately increase profits.

A large expense for most businesses is labor. More research in the area of worker training and commitment to the success of the organization is needed. The ability of an organization to understand

the commitment and satisfaction of its employees may be a major contributor to profitability. Profitability is a key component of business growth, and ultimately to the long term stability of the American economy.

#### Statement of Purpose

The purpose of this study is to evaluate the relationships between employees' participation in various training programs and organizational commitment at two selected Iowa companies.

A ten item set of questions was used to determine the relationships that exist between employee attitudes toward co-workers and the company after completion of training programs. The research will examine employee responses to such items as company values, friendliness of work groups, pride in the company, future success of the company, and interest in continued employment.

#### Statement of the Problem

The problem addressed in this research asks what relationships exist between various types and characteristics of training programs in which employees participate and the organizational commitment of those employees.

The research will be survey in nature and look at employee responses to attitudes about their immediate work group, levels of cooperation among workers, and their concern for the fate of the company. The research problem will focus on the impact of training on individual workers rather than overall organizational productivity, which can be influenced by many external factors unrelated to

organizational commitment.

### Research Questions and Related Hypotheses

The following questions and hypotheses will be considered in this research:

Question 1: Are the eight measures of training programs in which employees participated positively and significantly related to a number of dimensions of organizational commitment?

H1 - The number of training programs in which employees participate will be positively and significantly related to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment.

H2 - Participation in machine/hands-on training will show a more positive and significant relationship to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment than computer or management training.

H3 - The length of training programs in which employees participate will be positively and significantly related to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment.

H4 - The completion of the training programs in which employees participate will be positively and significantly related to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment.

H5 - Voluntary participation in training programs will be positively and significantly related to attitudes toward,

a) the work group, b) the company, and c) overall organizational commitment.

H6 - The employees who received hands-on training rather than classroom training will show a more positive and significant relationship to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment.

H7 - The perceived usefulness of training programs in the employees' current company will be positively and significantly related to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment.

H8 - The perceived ability of employees to perform their work after completion of the training programs will be positively and significantly related to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment.

Question 2: Are the six measures of the characteristics of employees positively and significantly related to a number of dimensions of organizational commitment?

H9 - Male employees will show a more positive and significant relationship to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment than female employees.

H10 - Management employees will show a more positive and significant relationship to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment than other employees.

H11 - Older employees will show a more positive and significant

relationship to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment than younger employees.

H12 - Employees in Company A will show a more positive and significant relationship to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment than those in Company B.

H13 - The length of service of employees will be positively and significantly related to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment.

H14 - The employees with post-high school education will show a more positive and significant relationship to attitudes toward, a) the work group, b) the company, and c) overall organizational commitment than those with a high school or less education.

#### Research Limitations

The results of this survey research may be influenced by changing internal climates of the various companies. Production schedules may create peaks and valleys in expectations for output, mandated overtime, or possibilities of lay off. These changes could affect employee responses.

The respondents will most certainly have varying levels of education and basic skills. A possibility exists that certain employees may have difficulty reading and understanding the questions.

A further limitation of this study could be the sample size of fifty-five. As Steers (1977) noted, age, education, and related job characteristics all appear to influence organizational commitment.

The sample may not permit multivariate examination of some of these characteristics. In spite of this, important and useful information can be drawn from this research that will contribute to a better understanding of organizational commitment.

### Definition of Terms

1. Organizational Commitment - a strong belief in and acceptance of the organizations goals and values, a willingness to exert considerable effort on behalf of the organization, and a strong desire to maintain membership in the organization (Mowday, Porter & Steers, 1982).

2. Training Programs - formal or informal activities in which employees participate to improve job skills and function more effectively in the organization. Programs consist of both classroom instruction and hands-on training.

3. Work Group - a group of employees who work closely together and perform similar tasks.

4. Length of Service - a measure in months of the time an employee has been with the company. One to thirty-six months of service was used to define newer employees, and more than thirty-six months of service was used to define older workers.

5. Position - a general classification for employees based on the type of work they performed. Employees were classified as managers, assemblers, skilled workers, or clerical workers.

Chapter II will provide a definition of and review of the literature related to organizational commitment and training. Chapter III will provide an overview of the methodology used in the study, the

research design, and an explanation of the descriptive statistics. Chapter IV will provide a description of the sample, the dependent variables, and results of the research questions. Chapter V will summarize and discuss the findings and offer implications for future research.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

The purpose of this review of the literature is to offer a general understanding of organizational commitment and training. The review will also provide a basis for the fourteen hypotheses that are the central components of this study. A major emphasis will be to review research on various aspects of organizational commitment, with a secondary emphasis on current views of training in America.

#### Defining Organizational Commitment and Training

A logical starting point for this review is to look at a definition of organizational commitment and training, followed by an analysis of some recent views on various aspects of organizational commitment and training. Mowday, Porter, and Steers (1982) have defined organizational commitment as: "a) a strong belief in and acceptance of the organization's goals and values; b) a willingness to exert considerable effort on behalf of the organization; and c) a strong desire to maintain membership in the organization" (p. 27). They have suggested that organizational commitment can be viewed "as a process that unfolds over time" (p. 45) (Figure 1). Commitment has also been consistently identified as an important factor used in predicting or explaining the work behavior of individuals (Mowday, Steers & Porter, 1979).



Figure 1: Stages in the Development of Organizational Commitment

Pre-entry stage	Early employment stage	Middle and late career stages
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Source: Mowday, Steers & Porter, (1982), "The measure of organizational commitment," p. 46.

The most basic definition of training has remained quite consistent over the years from the view of industry. Training is an activity designed to provide employees the opportunity to acquire specific skills and knowledge relative to the job (Calhoun, 1963). Training, then, is usually job related and designed to improve organizational effectiveness as well as prepare employees for change (Darkenwald & Merriam, 1982).

This research project is focused on trying to understand how training affects organizational commitment and how certain employee characteristics affect commitment. Some of the measures are age, sex, education, voluntary training, usefulness of training, and the number of training programs in which employees participate.

#### Voluntary Training and Commitment

Cross (1988) has offered some interesting ideas on why people will voluntarily participate in training. She contended that new technology makes many current jobs obsolete, people are living and working longer, and there is more competition for jobs. Changing jobs and careers has become more socially acceptable, she noted, along with more portable pension plans. Cohen (1990) also found that employees seemed to believe that it was the optional nature of training that motivated them to

attend.

A thorough understanding of organizational commitment can also assist the organization in explaining certain behavior among its members, plan management strategies, evaluate performance levels, and communicate a corporate value system. Blau (1986) in a sample of nurses found support for predicting absenteeism and turnover, in that individuals who reported stronger levels of job involvement and commitment seemed to have fewer unexcused tardy and absent days than those who had lower levels of both job involvement and organizational commitment. Wiener (1982) viewed commitment as a process of accepting organizational goals and values on an individual or personal level and identifying with one's employer. These values included loyalty and duty, which may be related to one's own moral standards. Organizations that understand this process and wish to increase commitment in individuals need to clearly define their own value system, gain broad acceptance, and recruit or attract employees whose values include loyalty and a sense of duty.

#### Management Training and Commitment

Management plays a key role in the development of organizational commitment and training. Managers are a part of every organization and usually receive more training than other employees, possibly because of their changing roles (Lee & Gorden, 1991). The nature and extent of the training function is a management decision. Company objectives and policies are the major determinants of the training (Reith & McKeon, 1967).

Organizational structures will require wider spans of control, with

managers responsible for a wider circle of employees (Wisdom & Denton, 1991). Wisdom and Denton (1991) also contended that managers should be viewed as teachers, with cross-training a critical element as empowerment of employees becomes the practice. Lifelong training for all employees will be essential to keep pace with technology.

The role of the organization in predicting and managing organizational commitment has been the subject of much study. Ogilvie (1986), for example, in a study of managers from an agricultural production company, reported that the Human Resource Management Practices of an organization have a positive relationship with organizational commitment. A well-conceived Human Resource Management Practices program that is communicated to employees as part of the process of developing a caring culture appears to be effective, he noted, in influencing organizational commitment. Employees may be better able to identify with and believe in the value system of the organization, one of the components of organizational commitment. The ability of an organization to tailor the program to employees at different career stages, he contended, can help to both develop and maintain organizational commitment. Cook and Wall (1980) examined various work attitude scales and found faith and confidence in management to be a contributing factor to the formation of organizational commitment and individual well-being at work.

The ability to understand one's role in the organization, identify with the goals and value system, and receive support from others in the work group all seem to increase organizational commitment. Tziner and Latham (1989) in a study of managers and subordinates found that a

performance review that consisted of performance feedback followed by goal setting had a greater influence on organizational commitment than a performance review consisting of feedback only. Goal setting, they reported, may bring out a better understanding of organizational commitment.

### Employee Development and Commitment

The rapid changes in our economy and increased competition have changed the type of training organizations will require. The type of training, Cohen (1991) contended, will shift from job specifics to individual development. Focus will be on evaluation and development of general aptitudes that can be easily transferred.

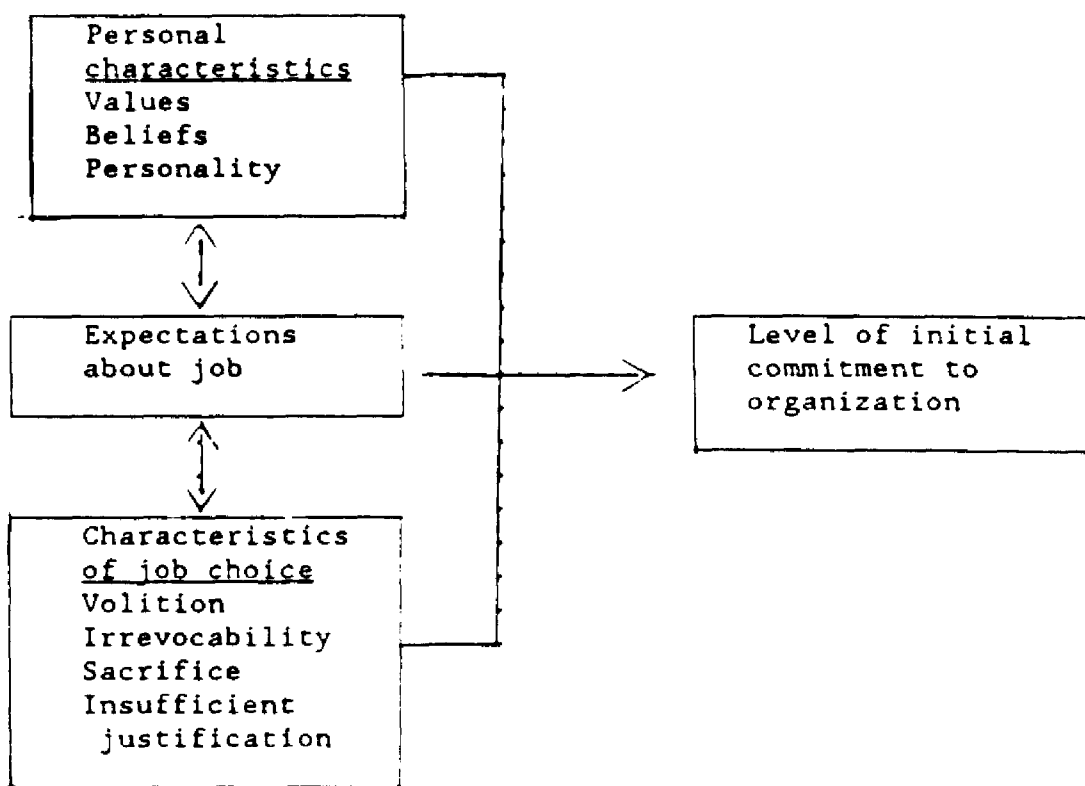
Organizational commitment appears to be related more to an individual's feelings toward the larger organization rather than to personal factors (Blau, 1987). In a study of registered nurses from a large urban hospital, Blau (1987) found that individual-environment relationships may help to explain job involvement, rather than organizational commitment. DeCottis and Summers (1987) in a sample of managerial employees reported that no one set of personal characteristics led to organizational commitment. They proposed that in order to increase levels of organizational commitment, the needs and expectations of employees must be met.

Satisfaction with pay (Welsch & LaVan, 1981) was not necessarily related to commitment while satisfaction with training (Mathieu, 1988) did show a relationship.

Mowday, Porter, and Steers (1982) concurred and Steers (1977) added that commitment shows a positive association with intent to stay with an

organization (Figures 2, 3, and 4). A desired outcome of increasing levels of commitment may mean a more stable work force, although he found no relationship between commitment and job performance. Employees that are committed, then, tend to stay with the organization, but are not necessarily better performers.

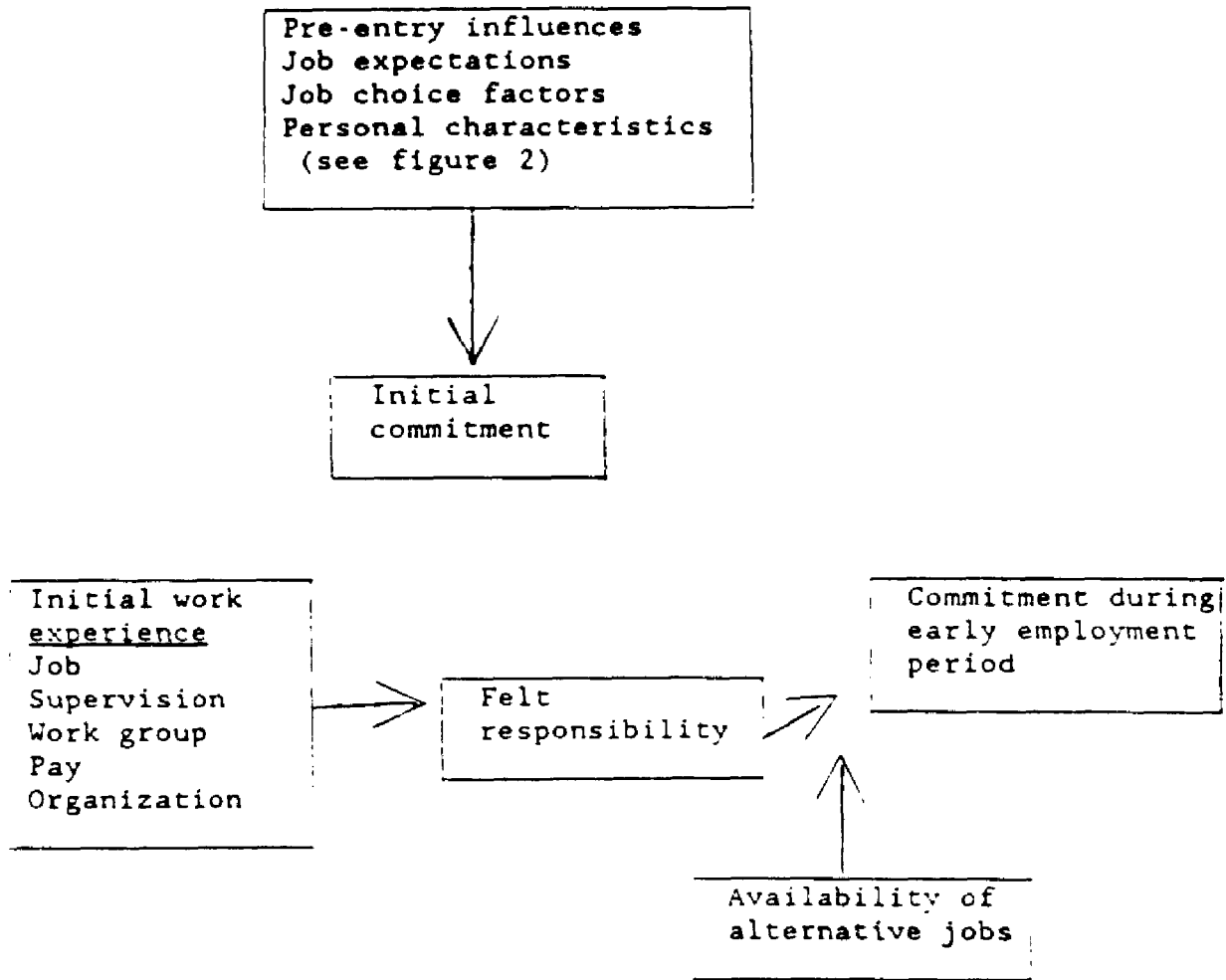
Figure 2: Major Determinants of Initial Commitment to the Organization




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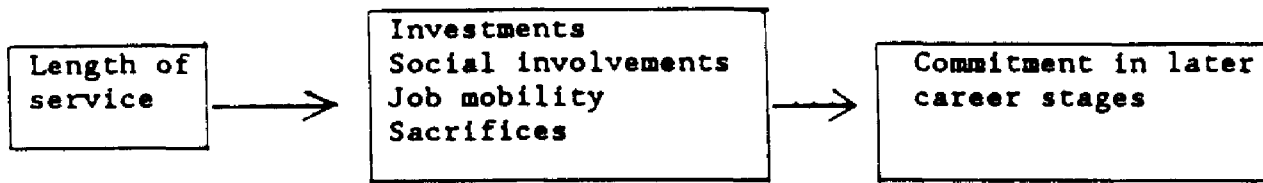
Source: Mowday, Porter & Steers, (1982), Employee-organization linkages: The psychology of commitment, absenteeism, and turnover, p. 49.

Figure 3: Major Determinants of Commitment During the Early Employment Period



Source: Mowday, Porter & Steers. (1982). Employee-organization linkages: The psychology of commitment, absenteeism, and turnover, p. 56.

Figure 4: Major Influences of the Continuing Development of Organizational Commitment During the Later Career Stages




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Source: Mowday, Porter & Steers, (1982), Employee-organization linkages: The psychology of commitment, absenteeism, and turnover, p. 65.

#### Gender, Training and Commitment

Haller (1989) contended that organizations must address the need for retraining, developing, and validating talent. Talent is both male and female, she suggested, and business in this country right now is a "man's world." Organizations to be competitive in the years ahead must meet the needs of the new workforce. A work force now exists "that for the most part has no one at home managing the house and family the way mom used to do" (Sourvenian, 1989). Bruning and Snyder (1983) examined sex and position as predictors of organizational commitment and reported that neither sex nor position related significantly to organizational commitment. Management practices that assume differences between men and women may actually help to create differences or expand differences that would otherwise have been insignificant.

The influx of women into the workplace and changing corporate structures present both challenges and opportunities for women of all ages and educational levels. Matthews (1991) offers some interesting facts on women.

1. Women will comprise 2/3 of the new entrants to the labor force

by the year 2000.

2. Almost 60 percent of all women in America are working or looking for work.

3. Nearly 80 percent of CEO's acknowledge that there are barriers to women's advancement.

4. The median income (in 1989 dollars) for women working full-time, year round is \$18,778; the median income for men is \$27,430.

5. More women than men reported that they experience work-family conflicts and feel pressured by time constraints.

6. For the first time in 20 years, the share of working women who would prefer to stay home with their children if they could afford to, rose above 50 percent. Fifty-six percent would chose this option.

Men appear generally to experience fewer work-family conflicts and may have opportunities to identify more closely with the organization on a long-term basis.

#### Usefulness of Training, Ability to Perform Work, and Commitment

Organizations that are concerned with the usefulness of training, work performance, and commitment must again consider company goals and values. Ludeman (1991) contended that training becomes useful when it enables employees to work in alignment with company values. Training, according to Cohen (1991), will become more important as the supply of employees becomes limited. Training will become a device to screen unqualified employees. He further contended that training must also set its sights on sustaining characteristics, as well as performance objectives.



Cohen (1990) contended that employee perceptions of training success and usefulness did not alone increase their motivation toward training. Management practices, he suggested, were one of the key determinants.

Kidron (1978) looked at the relationship between work values and organizational commitment. He distinguished between calculative commitment, which related to job factors, and moral commitment, which related to belief of the organization. Attempts to influence commitment, he noted, should consider that work values may be associated more with moral commitment than calculative commitment, specifically willingness to remain in the organization.

Wiener and Vardi (1980) in a sample of insurance sales agents and staff professionals in a chemical manufacturing firm reported that organizational commitment related very closely to attachment to the organization, while job commitment seemed to be associated more with levels of effort and actual job performance. Results of their study showed that an individual employee may be committed to the organization, while at the same time show some dissatisfaction with certain aspects of work or the organization.

#### Age of Employees, Length of Service, and Commitment

The various aspects of organizational commitment can be influenced by many factors both inside and outside the organizational setting. Buchanan (1974) reported that years of service, social interaction with peers and superiors, job achievement, and advancement all affect organizational commitment. He also supported the work of others in suggesting that commitment increases with tenure. The social ties that

develop in job groups may also be related to commitment. Stone and Porter (1974) found that the job an individual holds may affect his or her commitment and other attitudes differently than persons from other job groups within the same organization. Specific jobs affected not only attitudes about the work itself but a variety of other feelings related to such items as satisfaction with pay or opportunity for advancement.

Involvement in the organization may be driven by both a personal and corporate value system, and can affect levels of both investment and involvement in the organization. Sheldon (1971) in a study of Ph.D. scientists in a private laboratory found that both investments and involvement relate to commitment. Investments, she reported, appeared to be stronger for individuals with low commitment to the profession. The newer, younger men with lower investments, social involvement, and skills showed less commitment to the profession and the organization. Men with medium lengths of service seemed to increase commitment to the profession rather than the organization as their skills developed. Competent professionals who were involved socially in the organization reported a commitment to both the profession and the organization.

The time factor was also addressed by Pierce and Dunham (1987) in a study of hospital employees. They reported that an individual who has a propensity toward organizational commitment is likely to develop it during the first months of employment. Propensity for commitment tended to relate, they noted, to strong growth needs, internal control, and viewing the job as a central part of life. Pierce and Dunham (1987) also found that women, older workers, those with more

dependents, and a stable previous work background tend to become more committed. Other factors related to a commitment propensity seemed to be job related and included such items as complexity of the tasks, and initiating leadership structure, participatory management, and likelihood of rewards. Employees who did not develop organizational commitment initially exhibited more absenteeism than those who did.

Hrebiniak and Alutto (1972) in a study of nurses and teachers reported the most significant factors associated with organizational commitment were levels of job tension and length of service. Personal factors were found to be of less importance than role related factors in determining or predicting organizational commitment. Welsch and LaVan (1981) did, however, find a relationship between age and length of service and organizational commitment. The organizational climate, especially one in which participation was encouraged, showed a positive relationship with commitment.

Organizational commitment from an individual employee perspective, then, appears to develop primarily in the workplace over time. The individual begins to attach to and make investments in the larger organization. O'Reilly and Chatman (1986) examined three forms of psychological attachment: compliance, identification, and internalization. They viewed organizational commitment as a psychological attachment to the organization relative to the degree an individual accepts the goals and values of the larger organization. New employees, they reported, seem to base their commitment on compliance, with the anticipation of rewards. As time goes on, commitment appeared to develop as the individual identified more closely with the goals and

values of the organization.

The ability to understand what precedes organizational commitment, how it develops, and some of the most consistent behaviors associated with individuals as they develop organizational commitment can also be helpful in the study of organizations. Porter et al. (1974) found that organizational commitment was strongly related to intent to stay with the organization. He viewed commitment as a fairly stable process that develops over time and is less influenced by daily or short-term factors such as satisfaction with one's work which can vary throughout the term of employment.

Type of Instruction, Type of Company, Number  
and Length of Training Programs and Commitment

Training represents a fairly sizeable investment for many U.S. companies. In 1991, they spent \$43.2 billion on training. Lee and Gordon (1991) reported that the average production worker received 37 hours per year of training. In a comprehensive report, Lee and Gordon have also reported the following information regarding training in America. The number of training programs have been increasing yearly, primarily due to pressures to improve quality. Larger firms tended to emphasize training more than smaller firms, with transportation, utilities, and communication, companies spending the most on training. Manufacturers were second in the list of company types with the largest training investments. Employee programs and benefits also tend to be more defined and available in larger companies.

Lee and Gordon (1991), also reported that video and lectures were the most popular type of instruction method, while 75 percent of the

costs were used for in-house, hands-on type training. Calhoun (1963) contended that hands-on training enabled an employee to see a connection between one's own task and the entire operation of the organization. He also suggests that no gap exists then between training and actual practice. Classroom training, he noted, can be useful to provide special instruction and for delivery on a large scale. Training, he reported, is most effective in several short periods, rather than one or two long periods. Training should also be spread out with employees learning a little each day. This process, he suggested, allows time for understanding and recognizes the reality that training has become a continuous process for most organizations.

The type of organization also relates to the development of organizational commitment among its members. Morris and Steers (1980) found that functional dependence and formalization, i.e., clear processes and procedures, related to commitment, as well as to the way employees are organized to complete assignments. They contended that as individuals become more aware of their own contribution to the organization, commitment increases.

Structural variables included in the study were: 1) decentralization (perceived participation in decision making); 2) formalization (the extent to which the employee was aware of written rules and procedures concerning the job), 3) supervisory span of control, 4) span of subordination (the number of supervisors who initiated work for a given employee), 5) perceived functional dependence, and 6) group work size (p. 51).

O'Driscoll (1987) added in a study of newly recruited bank employees that clarity of procedures and regulations tends to increase commitment to the organization.

An individual may also develop multiple commitments. Reichers

(1985) viewed commitment as a number of attachments to various groups within the organization. He contended that individuals may have varying degrees of commitment to management, customers, co-workers, professional associations, unions, and other entities. Employees, he reported, may have the same level of commitment to the organization but for different reasons. Different commitments may, however, result in conflict among members of the organization.

Completion of Training Programs. Educational Level of Employees. Position in the Organization. and Commitment

The changing nature of business in America has made many companies according to Senge (1991), "learning organizations." A shared vision and a system of collective intelligence are required, he contended, for an organization to succeed. We must develop team learning systems, he suggested and not confuse job titles with the purpose of work.

The completion of training programs is one of the end objectives of a comprehensive training effort. Reith and McKeon (1967) reported that training programs are developed to create changes in behavior and improve performance. Record keeping that provides feedback about the various aspects of training, including completion, they suggested contributes to meeting training objectives.

The educational level of employees and their position in the organization have been the focus of much research and offer some insights about predicting not only organizational commitment, but other individual and organizational behavior. Steers (1977) in a study of hospital employees, scientists, and engineers contended that individuals come to an organization desiring to fulfill certain basic needs such as

performing challenging and meaningful tasks. As an organization recognizes and seeks to meet these needs, organizational commitment can be a likely outcome. He notes that as educational levels of employees increase, meeting these needs becomes more difficult.

Steers (1977) also reported in the same study that personal characteristics such as need for achievement, age, education, job characteristics such as task identity, optimal interaction, feedback and work experience such as group attitudes, organizational dependability, and personal import all have a positive impact on organizational commitment.

Lachman and Aranya (1986) in a sample of accountants looked at the relationship between their commitment to the profession and to their current employer. The results of their work seem to suggest that commitment to a profession develops prior to commitment to the organization and can affect work attitudes. A caution is offered, however, that a particular organizational setting may affect this relationship. Aranya and Jacobson (1975) found support for the notion that an individual can develop a dual commitment to both the profession and the organization. Blau (1985) defines career commitment as one's attitude toward one's profession. The significant factors he found that predicted career commitment were being single, work experiences, and a structured environment.

Ferris (1981) found that personal characteristics did not have a strong impact on commitment. Work related characteristics did, however, appear to influence commitment. The performance of accountants was affected at the junior level by a willingness to exert effort on behalf

of the organization, and at the senior level by a desire to maintain membership in the organization. The nature of organizational commitment, they suggested, may change over time.

Role strain related to one's position also appears to have a negative impact on commitment (Mathieu, 1988). Mathieu and Hamel (1989) and Welsch and LaVan (1981) reported a negative relationship between role strain and role ambiguity and organizational commitment. Mathieu (1988) found support, in a study of Army and Navy Cadets, for the relationship between personal characteristics, role status, job characteristics, work experiences, and organizational commitment. Welsch and LaVan (1981) also reported that such factors as power, team work, reading professional journals, satisfaction with the work itself, and promotion opportunities appeared to be related to organizational commitment. Mathieu and Hamel (1989) distinguished, in a sample of professional and non-professional workers, differences in reported influences of role strain on commitment. Role strain had a negative impact on job satisfaction and mental health in the non-professional group, but not in the professional group. A possible explanation, they suggested, may be that professionals consider role strain to be a normal part of their jobs.

#### Measuring Organizational Commitment

Attempts have been made to validate various commitment scales, distinguish between attitudinal and behavioral commitment, and examine common predictors of organizational commitment. The questions used in the survey for this research project have been supported by previous research as reliable measures of organizational commitment.



McGee and Ford (1987), for example, examined properties of various commitment scales considering the two views of commitment based on attitudinal and behavioral measures. Attitudinal commitment had as its base an individual identification with the larger organization and its goals. Behavioral commitment supported the notion that commitment is the result of more personal variables such as pensions, security, and other related benefits of organizational membership. McGee and Ford (1978), while recognizing a distinction between the two, supported evidence that the two types of commitment do not operate in an entirely independent manner.

Two popular measures of organizational commitment by Porter and Archink and Alutto dominate the literature. Ferris and Aranya (1983) in a sample of professional accountants found that the Porter et al. (1974) instrument was a more efficient measure of organizational commitment than the Hrebiniak and Alutto (1972) instrument. They also found that while the Porter et al. scale was a more accurate measure of intent to leave, no difference was found between the two instruments when actual turnover was measured. Measurement will be discussed in Chapter III.

#### Positive and Negative Consequences of Organizational Commitment

A careful review of the literature must include mention of both the positive and negative consequences of organizational commitment. Randall (1989) suggested that identifying lower levels of organizational commitment, usually associated with high turnover and absenteeism, may help the organization to rid itself of marginal or disruptive performers. High levels of commitment, on the other hand, could result

in less creativity, less willingness to change, and an acceptance of routine. Stress in one's personal life could also lead to over-commitment to the organization. Mowday, Porter and Steers (1982) also supported the idea of both positive and negative consequences of organizational commitment for the individual, work groups, and the entire organization. The most important positive factor, they noted, is reduced turnover. Major influences can be grouped in four categories: a) personal characteristics, b) job or role related characteristics, c) work experience, and d) organizational structure. Commitment, in their view, was an exchange process involving the exchange of commitment attitudes for desired outcomes (Mowday, Porter & Steers, 1982).

### Conclusions

Research has shown a relationship between organizational commitment and certain job related factors. Factors such as age, education, group attitudes, length of service, position, and belief in company values tended to influence organizational commitment and no consistent link was found to productivity. Major benefits seem to be in reduced turnover, absenteeism and an overall tendency to maximize human resources. Societal implications exist in related areas such as moral commitments and a strong belief in the goals and values of the organizations.

The current study will focus on the current levels of organizational commitment among various groups of employees. As Mowday, Porter, and Steers (1982) have suggested, the development of organizational commitment is a process unfolding over time. This study will not attempt to track that process, but rather look at training programs and their relationship to various factors affecting

organizational commitment. The size of the sample, as discussed earlier, may also require a more focused approach on work related characteristics if certain personal characteristics are not identified by the respondent.

### Summary

The review of the literature offered above served as a basis for developing the two research questions and fourteen related hypotheses tested in Chapter IV.

The review has shown that organizational commitment develops over time and employees who exhibit organizational commitment believe strongly in the goals and values of the organization. Education tends also to influence commitment. Personal and job characteristics such as need for achievement, age, and work group attitudes have some impact on organizational commitment. Committed employees tend to remain longer with the organization, thus reducing turnover. Enjoyment of the work itself also contributed to increase levels of commitment and tends to remain stable over time.

The gender of employees is an important consideration as the composition of the work force changes. Research on commitment, as was mentioned earlier, did not find a clear relationship between gender and levels of commitment. Older employees and those who feel their job is rewarding tend to show higher levels of commitment.

Training was also shown to have a positive impact on organizational commitment, which tends to help employees identify with organizational goals. This identification is a central component of organizational commitment (Mowday, Porter, & Steers, 1982).

The survey instrument shown in Appendix A and the subset of questions shown in Appendix B represent items consistent with the measures of organizational commitment found in the review of literature. The characteristics of the employees, the friendliness of co-workers, looking forward to the work itself, and general interest in the work group have all been typical items associated with the study of organizational commitment. Attitude toward the company itself, as mentioned earlier, is also an important component of organizational commitment. Belief in the value system, caring about the future of the company, and satisfaction about employment are all standard measures of commitment used in organizational commitment research.

The measures of the training programs themselves, which represent the first eight hypotheses for this study, were again selected based on the review of the literature. Training has been shown to positively affect commitment and measures such as the number, length, type, and usefulness of the training were examined. Items about the nature of the employees, which represented the final six hypotheses for this study have all been of importance in the research of others, as noted earlier in this review. Gender, position, age, length of service, and educational level of the employees were examined.

Chapter III will discuss the research design, the collection of data, and the type of statistical analysis used.

## CHAPTER III

### METHODOLOGY

#### Overview

The goal of this research is to examine the effect of job training on employee commitment.

#### Research Design

The data for this study were collected from two manufacturing firms in southeastern Iowa. These particular firms were selected because: a) each had invested considerable time and expense in new training programs over the past few years, b) each had a diverse enough work force to permit examination of training efforts in different occupational categories, and c) each had enough women workers to permit an investigation of gender differences in the provision of and effects of training.

The firms are briefly described below. Both names are fictitious.

Company A is a major employer in the Cedar Rapids area. It produces a range of durable manufacturing products. The firm is generally known as a "good" place to work. Pay scales are high for the area, and the firm has an elaborate assortment of employee programs and benefits.

Company B is a much smaller firm than Company A, but has been in business for decades. The nature of this business has changed markedly in recent years, as the firm has shifted entirely out of its original

(and increasingly uncompetitive) focus on agricultural-related products to a diverse and sophisticated line of "high tech" products. Company B is committed to staying on the "cutting edge" of technological improvement.

### Data Collection

A questionnaire was administered to a sample of workers in each firm. They were distributed with the cooperation of appropriate managers in each firm (see Appendix A).

The items on these questionnaires dealt with such topics as skills, job satisfaction, work commitment, career opportunity, and working conditions. They were taken from a number of standard sources in the sociological literature, including the Quality of Employment Survey and the National Longitudinal Surveys of Labor Force Experience.

This research strategy produced a variety of data. The questionnaire also provided quantitative data about the nature of the training programs.

Getting employees to complete and return the questionnaires required an enormous amount of persistence. While the questionnaire was neither difficult nor lengthy, numerous follow-up efforts were necessary to obtain acceptable response rates.

### Descriptive Statistics and Data Analysis

Based on data collected from completed surveys, analysis will be conducted using three primary statistical tests. The first type of statistical test is a t-test, which is a

statistical model that can be used for testing the significance of difference between the means of two

populations, based on the means and distributions of two samples. It is a ratio between the sample mean difference and the standard error of that difference. The unique features of  $t$  are found in the various methods for estimating the standard error of the mean difference and in the fact that the sampling distribution of  $t$  departs from normality when small samples are employed (Williams, 1979, p. 7)

The second type of statistical test that will be used is the Pearson Correlation.

Correlation characterizes the relationship between variables - that is, the degree to which two variables vary together (positive correlation) or vary inversely (negative correlation). The Pearson product-moment correlation coefficient,  $r$ , has a range of values from +1.0 (perfect positive correlation) through -1.0 (perfect negative correlation). In addition to the direction and magnitude of  $r$ , we can also test the null hypothesis of  $r = 0$  against a research hypothesis of  $r > 0$  (Williams, 1979, pp. 135-136).

The third type of statistical test used will be analysis of variance (ANOVA).

Simple-factor analysis of variance is a statistical model used for testing the significance of difference among two or more means when these means reflect the consequences of different levels of a single independent variable. The statistical logic of analysis of variance is incorporated in the  $F$  ratio, a ratio of between-groups variance to within-groups variance. Given a calculated value of  $F$ , this value is interpreted in a sampling distribution for its probability under the terms of the null hypothesis. If this probability value is equal to or less than the criterion set for statistical significance, the null hypothesis is rejected in favor of the research hypothesis (Williams, 1979, p. 88).

SPSSX will be used in conducting the analysis and results will be determined to be significant at the .10 level. A significance level of .10 was used in this study due to the small size of the sample and the exploratory nature of the research.

Items of examination will include a breakdown of respondents by gender, occupation, work experience, and other factors. These factors, in addition to training programs in which employees participated, will be used in the tests to look at organizational commitment in a variety of ways. The goals of this analysis are to assess relationships between the demographic composition of the work force, participation in training activities, and level of organizational commitment.

### Measurement

Data for the ten independent variables were gathered from employees of Company A and Company B by means of a questionnaire (Appendix B). The ten items represent a fairly standard measure of organizational commitment (Stone & Porter, 1975; Ferris, 1981; Ferris & Arraya, 1983). Employees were not pressured to respond and confidentiality was maintained throughout the data gathering process.

The independent variables pertaining to training programs were measured with fairly straightforward, continuous, dichotomous, and categorical indicators. Respondents were asked such things as how many training programs they participated in, how long the programs were, and so on. The selected measures are shown in Table 1.

The measures were direct and easy to distinguish. They also represent common types of questions employees in the workplace would expect be asked relative to training programs, either by their co-workers or superiors.



Table 1: Measures of Training Programs in Which Employees Participated

Programs Measures
Number (range of 0-20)
Length (weeks)
Type (computer, hands-on, management, other)
Completion or Non-completion
Voluntary or Mandatory
Type of Instruction (classroom or hands-on)
Usefulness in Current Company or Elsewhere
Overall Usefulness of Training

The independent variables pertaining to the employees themselves are also straightforward and typical of information regularly gathered by employers. They consist of items such as age, gender, level of education, and length of service. The selected measures are shown in Table 2.

Table 2: Independent Variables Relating to Individual Employees

Independent Variables
Gender (male or female)
Job Title (managers, assemblers, skilled workers, clerical)
Age (younger - age 21-35, older - age 36-60)
Employer (Company A or Company B)
Length of Service (1-36 weeks, more than 36 weeks)
Level of Education (high school or less, more than high school)

As was mentioned earlier, the employees of Companies A and B were not unduly pressured to answer the questions and were assured of anonymity. A possibility does exist, however, that an employee could have purposely or inadvertently given an incorrect response. This does not appear likely and, as was noted above, the items were easy to

understand and are typical of inquiries employees receive on a regular basis.

Chapter IV will describe the sample, the ten dependent variables, and the results of each of the three research questions.

## CHAPTER IV

### RESULTS

#### Introduction

This chapter is organized according to the two central research questions and their respective hypotheses listed in Chapter I. It provides a description of the sample, a section for each research question, the associated hypotheses, and a summary for each research question.

#### Description of the Sample

The sample consisted of 55 respondents from two companies in the Cedar Rapids, Iowa metro area (see Table 3). Thirty-three of the employees or 60 percent of the sample were from Company A, and 22 employees or 40 percent of the sample were from Company B. Due to missing data, some categories examined in this study do not total 55 responses.

The breakdown of the sample by gender, age, educational level, length of service, and position is also shown in Table 3. Thirty-seven of the employees or 71.2 percent were male and 15 or 28.8 percent were female. Three employees did not respond to this question.

The age of employees was divided into two categories: younger workers, age 21-35, and older workers, age 36-60. Twenty-one employees or 42.9 percent were 21-35 years old, and twenty-eight employees or 57.1 percent were 36-60 years old. Six employees did not respond to this

question.

Table 3: Employee Breakdown by Company, Gender, Age, Educational Level, Length of Service, and Position

	N	Percent of Total
<b>Total Employees</b>	55	100
Company A	33	60.0
Company B	22	40.0
<b>Gender</b>		
Male	37	71.2
Female	15	28.8
<b>Age</b>		
Younger Workers (21-35)	21	42.9
Older Workers (36-60)	28	57.1
<b>Educational Level</b>		
High School or Less	27	51.9
More than High School	25	48.1
<b>Length of Service</b>		
1-36 Months	23	43.4
More than 36 Months	30	56.6
<b>Position</b>		
Managers	15	28.8
Assemblers	11	21.2
Skilled	18	34.6
Clerical	8	15.4

The educational level of employees was also divided into two categories: those with a high school education or less, and those with more than a high school education. Twenty-seven employees or 51.9 percent had a high school education or less, and 25 employees or 48.1 percent had more than a high school education. Three employees did not respond to this question.

The length of service with the company was measured in months and divided into two categories: those with 1-36 months of service and

those with more than 36 months of service. Twenty-three employees or 43.4 percent had from 1-36 months of service, and 30 employees or 56.6 percent had more than 36 months of service. Two employees did not respond to this question. The months of service for the fifty-four respondents ranged from 4 to 312 months, or less than a year to more than 25 years.

The positions of employees were divided into four categories: managers, assemblers, skilled workers, and clerical workers. Fifteen employees or 28.8 percent were managers; 11 employees, or 21.2 percent were assemblers; eighteen employees, or 34.6 percent were skilled workers; and eight employees, or 15.4 percent were clerical workers. Three employees did not respond to this question.

The composition of the sample, then, was predominantly male (71.2%) with slightly more than half (56.6%) with more than 36 months of service.

The employees were also asked questions about the training programs in which they participated. Responses to questions about the nature of training programs in which employees participated are discussed below and shown in related tables as noted. The number of training programs in which employees participated ranged from 0 to 20. (See Table 4 for the breakdown.) The mean number of training programs participated in was 6.33. All but two employees had participated in at least one training program, and twenty-six had participated in five or more training programs. Ten employees did not respond to this question.

The most recent type of training program in which employees participated was divided into three categories: computer,

Table 4: Number of Training Programs in Which Employees Participated (Mean Number of Training Programs = 6.3)

Number of Training Programs	N	Valid Percent	Cumulative Percent
0	2	4.4	4.4
1	5	11.1	15.5
2	4	8.9	24.4
3	2	4.4	28.8
4	6	13.4	42.2
5	8	17.8	60.0
6	4	8.9	68.9
8	1	2.2	71.1
9	4	8.9	80.0
10	1	2.2	82.2
11	1	2.2	84.4
12	2	4.4	88.9
14	1	2.2	91.0
15	1	2.2	93.2
20	3	6.8	100.0
No Response	10	--	
Total	55	100.0	

machine/hands-on, and management. Table 5 provides a frequency distribution. A total of six people received computer training, ten received machine/hands-on training, and eight received management training. Eighteen employees did not respond to this question and 13 received training in other areas. The missing responses and great diversity of the other type of training received made it necessary to use the computer, hands-on, and management type training for purposes of this study.

The length of training programs in which employees participated was measured in weeks. Length of training programs ranged from less than one week to fifty weeks. Table 6 presents the frequency distribution. The mean length of the training programs was 12.1 weeks. Thirty-three

Table 5: Most Recent Type of Training Program in Which Employees Participated

Type of Training	N	Percent
Computer	6	16.2
Machine/Hands-on	10	27.1
Management	8	21.6
Other	13	35.1
No Response	18	----

employees participated in a program of 10 weeks or less, while 11 employees participated in a program which lasted more than 10 weeks. Eleven employees did not respond to this question.

Table 6: Length of Most Recent Training Program in Which Employees Participated (Mean Length of Training Program = 12.1 Weeks)

Length (Weeks)	N	Valid Percent	Cumulative Percent
Less than 1	1	2.3	2.3
1	12	27.3	29.6
2	2	4.5	34.1
3	8	18.2	52.3
4	2	4.5	56.8
5	6	13.6	70.4
9	1	2.3	72.7
10	1	2.3	75.0
20	2	4.5	79.5
25	1	2.3	81.8
30	1	2.3	84.1
40	1	2.3	86.4
50	6	13.6	100.0
No Response	11	---	
Total	55	100.0	

Employees were also asked to indicate whether or not they completed the training programs. As indicated in Table 7, forty-one or 85.4 percent indicated they did complete the training programs, while seven or 14.6 percent said they did not complete training programs in which

they participated. Seven employees did not respond to this question. The majority of employees, as noted above, did complete training programs in which they participated.

Table 7: Completers and Non-Completers of Training Programs

	N	Percent
Completers	41	85.4
Non-Completers	7	14.6
No Response	7	----

The employees were asked if the training programs in which they participated were voluntary or mandatory. Twenty-three or 46.9 percent indicated the training programs were voluntary, while 26 or 53.1 percent said they were required to participate in the training programs. Six employees did not respond to this question. See Table 8 for breakdown of the voluntary and mandatory nature of the training programs. The sample was nearly evenly divided between those who voluntarily participated in training programs and those who were required to participate.

The type of instruction received was divided into three categories: classroom, hands-on, or some of each. Employee responses to the question of what type of training they received are shown in Table 9. Twenty-two employees or 46.8 percent received mostly classroom training, 11 or 23.4 percent received mostly hands-on, and 14 or 29.8 percent received some of each type of instruction. Eight employees did not respond to this question.



Table 8: Voluntary or Mandatory Nature of Training Programs  
in Which Employees Participated

	N	Percent
Voluntary Participation	23	46.9
Mandatory Participation	26	53.1
No Response	6	----

Table 9: Type of Instruction Used in Training Programs  
in Which Employees Participated

	N	Percent
Mostly Classroom	22	46.8
Mostly Hands-on	11	23.4
Some of Each	14	29.8
No Response	8	----

Twenty employees or 38.5 percent indicated they could perform their current job without the training, while 32 or 61.5 percent indicated they could not perform their current job without the training. Table 10 provides the breakdown of employee responses to this question. Three employees did not respond to this item.

Table 10: Employees Who Could or Could Not Perform Their  
Current Job Without the Training Programs

	N	Percent
Could Perform Job	20	38.5
Could Not Perform Job	32	61.5
No Response	3	----

The employees were asked if the training programs in which they participated would be useful only in their current company or if it could also be useful in other companies. Sixteen employees or 32.7

percent indicated the training was useful only in their current company, while 33 or 67.3 percent indicated the training could be useful in other companies as well. Table 11 provides the breakdown of employee responses to this question. Six employees did not respond to this item.

Table 11: Training Program Useful in Current Company or Useful in Other Companies

	N	Percent
Training Useful Here	16	32.7
Training Useful Elsewhere	33	67.3
No Response	6	----

#### Dependent Variables

The ten dependent variables were measured by the questions listed in Appendix B. As indicated in Chapter III, the questions consisted of a five part scale and were initially coded as such. No responses, however, were received in the "Not" category for the employees' attitudes toward the immediate work group or in the "Strongly Disagree" category for employees' attitudes toward the company. (See note in Table 12.)

The results of responses to these ten items are listed in Table 12. Part 1 of Table 12 shows that for the four questions about employee attitudes toward the immediate work group, all four mean scores were 3.5 or higher. The highest mean was for item one, "People in the work group are friendly," with a score of 4.42. Next highest was for item 2, "People in the work group are helpful," with a score of 4.29. The overall employee attitude toward the work group mean score was 3.99. This indicates a very positive attitude by employees toward their

immediate work group.

Part 2 of Table 12 shows that for the six items about employee attitudes toward the company, all six means scores were 3.4 or higher. The highest mean was for item nine, "I care about the fate of the company" with a score of 4.55. The next highest mean was for item 8, "I am glad I chose this company," with a score of 4.13. The item in this section with the lowest mean score of 3.44 was number 6, "My values and the company values are similar." The employees appear to have a positive attitude toward the company as evidenced by the overall mean score of 3.99.

The ten items in Table 12, when grouped together, provide a measurement of employees' overall commitment to the organization. The mean score for this combined grouping was 3.99, again indicating a high level of commitment to the organization.

#### Research Question One

Research Question One investigates eight independent variables describing the nature of the training activity and their relationships with organizational commitment. The question was stated as follows: Are the eight measures of training programs in which employees participated positively and significantly related to organizational commitment?

To assess this research question eight hypotheses were formulated for each of the following independent variables: 1) number of training programs, 2) type of training programs, 3) length of training programs, 4) completion of training programs, 5) voluntary nature of

Table 12: Summary of Employee Responses to Questions About Attitudes Toward the Immediate Work Group, the Company, and Overall Organizational Commitment

Part 1 - Employee Attitudes Toward the Immediate Work Group (N=54)\*

	2 Very Little %	3 Some- what %	4 Quite %	5 Very %	x
1) People in the work group are friendly	1.8	9.1	32.7	54.0	4.42
2) People in the work group are helpful	1.8	18.2	27.3	52.0	4.29
3) I look forward to being with the work group	5.5	36.4	34.5	21.8	3.74
4) The work group is personally interested in me	9.1	45.5	29.1	14.5	3.50
Overall Attitude Toward Work Group Mean					3.99

\*No responses were received in the "Not Friendly" category.

Part 2 - Employee Attitudes Toward the Company (N=54)\*

	2 Dis- agree %	3 Neutral %	4 Agree %	5 Strongly Agree %	x
5) The company is a great place to work	3.6	18.2	52.7	23.0	3.98
6) My values and the company values are similar	12.7	36.4	28.2	10.9	3.44
7) I am proud to work here	3.6	12.7	52.7	29.1	4.09
8) I am glad I chose this this company	3.6	16.4	40.0	38.2	4.13
9) I care about the fate of the company	0	5.5	32.7	60.0	4.55
10) This is the best of all companies to work for	10.9	27.3	34.5	25.5	3.75
Overall Attitude Toward the Company Mean					3.99
Organizational Commitment Mean					3.99

\*No responses were received in the "Strongly Disagree" category.

training programs, 6) type of instruction used in the training programs, 7) usefulness of training programs here or elsewhere, and 8) overall usefulness of the training program.

Each hypothesis is described in the following sections.

#### Hypothesis One: Number of Training Programs

The first hypothesis investigated the relationship between the number of training programs in which employees participated and their attitudes toward the work group, the company, and organizational commitment (Tables 4, 13). It is stated as follows: The number of training programs in which employees participate will be positively and significantly related to attitudes toward a) the work group, b) the company, and c) overall organizational commitment.

The number of training programs in which employees participated was not found to be statistically significant at the .10 level for any of the three variables. Table 13 provides the Pearson Correlation for the work group, the company, and organizational commitment. The first hypothesis was rejected.

#### Hypothesis Two: Type of Training Programs

The second hypothesis investigated the relationship between the type of training programs in which employees participated and their attitudes toward the work group, the company, and organizational commitment (Tables 5, 14). It is stated as follows: Participation in machine/hands-on training will show a more positive and significant relationship to attitudes toward a) the work group, b) the company, and c) overall organizational commitment than computer or management

training.

Table 13: Correlation of the Number of Training Programs in Which Employees Participated by Their Attitudes Toward the Work Group, the Company, and Organizational Commitment

Group	N	Correlation	Significance
Attitudes toward the work group	54	.17	p = .14
Attitudes toward the company	54	-.08	p = .30
Organizational commitment	54	.03	p = .42

The type of training program in which employees participated was divided into three categories: computer, machine/hands-on, and management. The type of statistical test used was One-way Analysis of Variance, followed by the least squares difference test (LSD). Table 14 shows that a statistically significant difference existed between both employee attitudes toward their work group and toward the company, and the most recent type of training programs in which the employees participated. A statistically significant relationship did not exist between organizational commitment and the most recent type of training, as noted in Table 14, Part 3.

The LSD test shown in Part 1 of Table 14 indicates that a statistically significant difference exists between group 2 - machine/hands-on training and group 3 - management training, and employee attitudes toward the work group. The LSD test shown in Part 2 of Table 14, also indicates that a statistically significant difference exists between group 2 and 3 and the employee attitudes toward the

company. The LSD test shown in Part 3 of Table 14 indicates that a statistically significant difference does not exist between groups 1, 2, and 3, and organizational commitment. Parts A and B of the second hypothesis were accepted and Part C was rejected.

#### Hypothesis Three: Length of Training Programs

The third hypothesis investigated the relationship between the length of training programs in which employees participated and their attitudes toward the work group, the company, and organizational commitment (Tables 6, 15). It is stated as follows: The length of training programs in which employees participate will be positively and significantly related to attitudes toward a) the work group, b) the company, and c) overall organizational commitment.

The length of training programs in which employees participated was not found to be statistically significant at the .10 level when associated with any of the three variables. Table 15 provides the Pearson Correlation for employee attitudes toward their work group, the company, and organizational commitment. The third hypothesis was rejected.

#### Hypothesis Four: Completion or Non-Completion of Training Programs

The fourth hypothesis investigated the relationship between the completion or non-completion of training programs in which employees participated and their attitudes toward the work group, the company and organizational commitment (Tables 7, 16). It is stated as follows: The completion of the training programs in which employees participated will

Table 14: One-way Analysis of Variance for Employee Attitudes Toward the Work Group, the Company, and Organizational Commitment by Most Recent Type of Training

Part 1 - Employee Attitudes Toward the Work Group

Source	df	ms	F	P	
Between	2	1.18	3.01	.07	
Within	21	.39			
-----					
Group	N	M	SD		Significant Difference Between Means
1 Computer	6	3.83	.63		
2 Machine/Hands-on	10	4.38	.63		
3 Management	8	3.69	.62		2 > 3

Part 2 - Employee Attitudes Toward the Company

Source	df	ms	F	P	
Between	2	.78	2.53	.10	
Within	21	.31			
-----					
Group	N	M	SD		Significant Difference Between Means
1 Computer	6	4.08	.17		
2 Machine/Hands-on	10	3.78	.73		
3 Management	8	4.37	.47		3 > 2

Part 3 - Organizational Commitment

Source	df	ms	F	P	
Between	2	.03	.12	.87	
Within	21	.21			
-----					



Table 14 continued

Group	N	M	SD	Significant Difference Between Means
1 Computer	6	3.98	.21	-----
2 Machine/Hands-on	10	4.02	.53	-----
3 Management	8	4.10	.49	-----

Table 15: Correlation of the Length of Training Programs in Which Employees Participated by Their Attitudes Toward the Work Group, the Company, and Organizational Commitment

Group	N	Correlation	Significance
Attitude toward the work group	54	.08	p = .29
Attitude toward the company	54	.15	p = .17
Organizational commitment	54	.15	p = .16

be positively and significantly related to attitudes toward a) the work group, b) the company, and c) overall organizational commitment.

The completion of training programs in which employees participated was not found to be statistically significant at the .10 level when associated with any of the three variables. Table 16 provides the t-test for employee attitudes toward the work group, the company, and organizational commitment. The fourth hypothesis was rejected.

#### Hypothesis Five: Voluntary or Mandatory Nature of Training Programs

The fifth hypothesis investigated the relationship between the voluntary or mandatory nature of training programs in which employees

Table 16: Completion or Non-Completion of Training Programs by Employee Attitudes Toward the Work Group, the Company, and Organizational Commitment

Group	N	Mean	SD	t-value	2-tail Prob
<b>Employee attitudes toward the work group</b>					
Completers	41	3.96	.64	-1.26	.21
Non-Completers	7	4.29	.55		
<b>Employee attitudes toward the company</b>					
Completers	41	3.98	.61	.18	.86
Non-Completers	7	3.93	.73		
<b>Organizational commitment</b>					
Completers	41	3.97	.50	-.50	.62
Non-Completers	7	4.07	.39		

participated and their attitudes toward the work group, the company, and organizational commitment (Tables 8, 17). It is stated as follows: Voluntary participation in training programs will be positively and significantly related to attitudes toward a) the work group, b) the company, and c) overall organizational commitment.

The voluntary nature of training programs in which employees participated was not found to be statistically significant at the .10 level when associated with any of the three variables. Table 17 provides the t-test for employee attitudes toward their work group, the company, and organization commitment. The fifth hypothesis was rejected.

#### Hypothesis Six: Type of Instruction Used in Training Programs

The sixth hypothesis investigated the relationship between the type of instruction used in the training programs in which employees

Table 17: Voluntary or Mandatory Nature of Training Programs by Employee Attitudes Toward the Work Group, the Company, and Organizational Commitment

Group	N	Mean	SD	t-value	2-tail Prob
<b>Employee attitudes toward the work group</b>					
Voluntary participation	23	4.00	.63	.10	.92
Mandatory participation	26	3.98	.66		
<b>Employee attitudes toward the company</b>					
Voluntary participation	23	3.88	.62	-.71	.48
Mandatory participation	26	4.01	.65		
<b>Organizational commitment</b>					
Voluntary participation	23	3.93	.50	-.48	.63
Mandatory participation	26	4.00	.51		

participated and their attitudes toward the work group, the company, and organizational commitment (Tables 9, 18). It is stated as follows: The employees who received hands-on training rather than classroom training will show a more positive and significant relationship to attitudes toward a) the work group, b) the company, and c) overall organizational commitment.

The type of instruction used in the training programs in which employees participated was divided into three categories: classroom, hands-on, or some of each. The type of statistical test used was One-way Analysis of Variance, followed by the least squares difference test (LSD). Table 18 shows that a statistically significant difference was not found between employee attitudes toward their work group, the company, and organizational commitment and the type of instruction used in the training program.

The LSD test shown in Parts 1, 2, and 3 of Table 18 indicates that a statistically significant difference does not exist between groups 1,

2, and 3, and employee attitudes toward the work group, the company, and organizational commitment. The sixth hypothesis was rejected.

**Hypothesis Seven: Training Program Useful in Current  
Company Or Useful in Other Companies as Well**

The seventh hypothesis investigated the relationship between whether the training programs in which employees participated were useful only in the employees current company or could also be useful only in other companies and their attitudes toward the work group, the company, and organizational commitment (Tables 11, 19). It is stated as follows: The perceived usefulness of training programs in the employee's current company will be positively and significantly related to attitudes toward a) the work group, b) the company, and c) overall organizational commitment.

The perceived usefulness of training programs in the employee's current company was not found to be statistically significant at the .10 level when associated with any of the three variables. Table 19 provides the t-test for employee attitudes toward their work group, the company, and organizational commitment. The seventh hypothesis was rejected.

**Hypothesis Eight: Ability to Perform Work With  
or Without Training Programs**

The eighth hypothesis investigated the relationship between the perceived ability of employees to perform their work with or without the training programs in which they participated and their attitudes toward the work group, the company, and organizational commitment (Tables 10, 20). It is states as follows: The perceived ability of employees

Table 18: One-way Analysis of Variance for Employee Attitudes Toward the Work Group, the Company, and Organizational Commitment by Type of Instruction Used in Training Programs

Part 1 - Employee Attitudes Toward the Work Group

Source	df	ms	F	P	
Between	2	.24	.56	.58	
Within	44	.43			
-----					
Group	N	M	SD		Significant Difference Between Means
1 Classroom	22	3.88	.57		-----
2 Hands-on	11	4.13	.87		-----
3 Some of each	14	4.01	.60		-----

Part 2 - Employee Attitudes Toward the Company

Source	df	ms	F	P	
Between	2	.10	.24	.78	
Within	44	.42			
-----					
Group	N	M	SD		Significant Difference Between Means
1 Classroom	22	3.92	.79		-----
2 Hands-on	11	3.86	.57		-----
3 Some of each	14	4.03	.41		-----

Part 3 - Organizational Commitment

Source	df	ms	F	P	
Between	2	.07	.25	.78	
Within	44	.27			
-----					

Table 18 continued

Group	N	M	SD	Significant Difference Between Means
1 Classroom	22	3.90	.60	-----
2 Hands-on	11	3.97	.50	-----
3 Some of each	14	4.02	.36	-----

Table 19: Perceived Usefulness of Training Programs in Employees Current Company or Other Companies by Employee Attitudes Toward the Work Group, the Company, and Organizational Commitment

Group	N	Mean	SD	t-value	2-tail Prob
<b>Employee attitudes toward the work group</b>					
Training useful here	16	3.90	.71	-.63	.53
Training useful elsewhere	33	4.03	.58		
<b>Employee attitudes toward the company</b>					
Training useful here	16	3.86	.50	-.68	.50
Training useful elsewhere	33	3.99	.67		
<b>Organizational commitment</b>					
Training useful here	16	3.88	.40	-.84	.40
Training useful elsewhere	33	4.00	.54		

to perform their work after completion of the training programs will be positively and significantly related to attitudes toward a) the work group, b) the company, and c) overall organizational commitment.

The ability of employees to perform their work after completion of the training programs in which they participated was not found to be statistically significant at the .10 level when associated with any of the three variables. Table 20 provides the t-test for employee attitudes toward their work group, the company, and organizational commitment. The eighth hypothesis was rejected.

Table 20: Ability of Employees to Perform Their Work With or Without Training Programs by Employee Attitudes Toward the Work Group, the Company, and Organizational Commitment

Group	N	Mean	SD	t-value	2-tail Prob
<b>Employee attitudes toward the work group</b>					
Could perform work	20	3.98	.61	-.15	.88
Could not perform work	32	4.01	.65		
<b>Employee attitudes toward the company</b>					
Could perform work	20	4.06	.69	.57	.56
Could not perform work	32	3.95	.61		
<b>Organizational commitment</b>					
Could perform work	20	4.03	.57	.35	.73
Could not perform work	32	3.98	.47		

### Research Question Two

Research Question Two investigates six independent variables describing the nature of the employees and their relationships with organizational commitment. The question was stated as follows:

Are the six characteristics of the nature of employees, positively and significantly related to their attitudes towards the work group, the company, and overall organizational commitment?

To measure this research question six additional hypotheses were formulated for each of the following independent variables: 1) gender of the employees, 2) position of employees, 3) age of employees, 4) company in which employed, 5) length of service of the employees, and 6) educational level of employees.

Each hypothesis is described in the following sections.

#### Hypothesis Nine: Gender of the Employees

The ninth hypothesis investigated the relationship between male and female employees and their attitudes toward the work group, the company, and organizational commitment (Tables 3, 21). It is stated as follows: Male employees will show a more positive and significant relationship to attitudes toward a) the work group, b) the company, and c) overall organizational commitment than female employees.

According to the means, men had significantly stronger feelings toward the company than women; men = 4.08 and women = 3.81. The gender of the employees was found to be statistically significant at the .10 level when associated with attitudes toward the company. Table 21 provides the t-test for the work group, the company, and organizational commitment. Gender of the employees was not found to be statistically significant when associated with attitudes toward the work group, and organizational commitment. Parts A and C of the ninth hypothesis are rejected and Part B is accepted.

#### Hypothesis Ten: Position of the Employees

The tenth hypothesis investigated the relationship between the position of employees and their attitudes toward the work group, the company, and organizational commitment (Tables 3, 22). It is stated as follows: The management employees will show a more positive and significant relationship to attitudes toward a) the work group, b) the company, and c) overall organizational commitment than other employees.

The position of employees were divided into four categories: managers, assemblers, skilled workers, and clerical workers. The type of statistical test used was One-way Analysis of Variance followed by



Table 21: Gender of Employees by Attitude Toward the Work Group, the Company, and Organizational Commitment

Group	N	Mean	SD	t-value	2-tail Prob
<b>Employee attitudes toward the work group</b>					
Male	37	3.90	.63	-1.68	.80
Female	15	4.23	.66		
<b>Employee attitudes toward the company</b>					
Male	37	4.08	.57	1.37	.10
Female	15	3.81	.80		
<b>Organizational commitment</b>					
Male	37	4.01	.46	.20	.12
Female	15	3.98	.63		

the least squares difference test (LSD). Table 22 shows that a statistically significant difference was not found between the position of employees and their attitudes toward the work group, the company, and organizational commitment.

The LSD test shown in Parts 1, 2, and 3 of Table 22 indicates that a statistically significant difference does not exist between groups 1, 2, 3, and 4 and employee attitudes toward the work group, the company, and organizational commitment. The tenth hypothesis was rejected.

#### Hypothesis Eleven: Age of the Employees

The eleventh hypothesis investigated the relationship between the age of the employees and their attitudes toward the work group, the company, and organizational commitment (Tables 3, 23). It is stated as follows: Older employees will show a more positive and significant relationship to attitudes toward a) the work group, b) the company, and c) overall organizational commitment than younger employees.

Table 22: One-way Analysis of Variance for Employee Attitudes  
Toward the Work Group, the Company, and Organizational  
Commitment by Position

Part 1 - Employee Attitudes Toward the Work Group

Source	df	ms	F	P	
Between	3	.29	.68	.57	
Within	48	.43			
-----					
Group	N	M	SD		Significant Difference Between Means
1 Managers	15	3.97	.65		-----
2 Assemblers	11	3.80	.84		-----
3 Skilled	18	4.13	.52		-----
4 Clerical	8	4.12	.67		-----

Part 2 - Employee Attitudes Toward the Company

Source	df	ms	F	P	
Between	3	.20	.46	.71	
Within	48	.43			
-----					
Group	N	M	SD		Significant Difference Between Means
1 Managers	15	4.16	.54		-----
2 Assemblers	11	3.99	.77		-----
3 Skilled	18	3.98	.52		-----
4 Clerical	8	3.83	.93		-----

Part 3 - Organizational Commitment

Source	df	ms	F	P	
Between	3	.08	.29	.83	
Within	48	.26			
-----					

Table 22 continued

Group	N	M	SD	Significant Difference Between Means
1 Managers	15	4.08	.39	-----
2 Assemblers	11	3.90	.62	-----
3 Skilled	18	4.04	.38	-----
4 Clerical	8	3.95	.78	-----

Table 23 provides the Pearson Correlation for attitudes toward the work group, the company, and organizational commitment. The relationship between older employees and their attitudes toward the company was found to be statistically significant at the .10 level. No significant correlation was found between the older employees and their attitudes toward either the work group or organizational commitment. Parts A and C of the eleventh hypothesis were rejected, and Part B was accepted.

#### Hypothesis Twelve: The Company in Which Employees Work

The twelfth hypothesis investigated the relationship between the company in which employees worked and their attitudes toward the work group, the company, and organizational commitment (Tables 3, 24). It is stated as follows: Employees in Company A will show a more positive and significant relationship to attitudes toward a) the work group, b) the company, and c) overall organizational commitment than those in Company B.

The company in which employees work was not found to be statistically significant at the .10 level when associated with any of

Table 23: Correlation of the Age of Employees by Their Attitudes Toward the Work Group, the Company, and Organizational Commitment

Group	N	Correlation	Significance
Attitudes toward the work group	54	-.10	p = .24
Attitudes toward the company	54	.20	p = .09
Organizational commitment	54	.10	p = .25

the three variables. Table 24 provides the t-test for employee attitudes toward the work group, the company, and organizational commitment. The twelfth hypothesis was rejected.

#### Hypothesis Thirteen: Length of Service of Employees

The thirteenth hypothesis investigated the relationship between the length of service of employees and their attitudes toward the work group, the company, and organizational commitment (Tables 3, 25). It is stated as follows: The length of service of employees will be positively and significantly related to attitudes toward a) the work group, b) the company and c) overall organizational commitment.

The length of service of employees was found to be statistically significant at the .10 level when associated with all three variables. Table 25 provides the Pearson Correlation for employee attitudes toward the work group, the company and organizational commitment. The thirteenth hypothesis was accepted.

Table 24: Company in Which Employees Work by Attitudes Toward the Work Group, the Company, and Organizational Commitment

Group	N	Mean	SD	t-value	2-tail Prob
<b>Employee attitudes toward the work group</b>					
Company A	32	4.02	.66	.45	.66
Company B	22	3.94	.64		
<b>Employee attitudes toward the company</b>					
Company A	32	3.93	.69	-.85	.40
Company B	22	4.08	.57		
<b>Organizational commitment</b>					
Company A	32	3.97	.53	-.42	.68
Company B	22	4.03	.47		

Table 25: Correlation of the Length of Service of Employee by Their Attitudes Toward the Work Group, the Company, and Organizational Commitment

Group	N	Correlation	Significance
Attitudes toward the work group	54	.19	p = .08
Attitudes toward the company	54	.30	p = .01
Organizational commitment	54	.33	p = .01

#### Hypothesis Fourteen: Educational Level of Employees

The fourteenth hypothesis investigated the relationship between the educational level of employees and their attitudes toward the work group, the company, and organizational commitment (Tables 3, 26). It is stated as follows: The employees with post-high school education will show a more positive and significant relationship to attitudes toward a) the work group, b) the company, and c) overall organizational commitment

than those with a high school or less education.

The educational level of employees was divided into two categories: those with a high school education or less, and those with more than a high school education. The educational level of employees was found to be statistically significant at the .10 level when associated with organizational commitment. No statistically significant relationship was found between educational level and attitudes toward the work group and the company. Table 26 provides the t-test for employee attitudes toward the work group, the company, and organizational commitment. Parts A and B of the fourteenth hypothesis were rejected and Part C was accepted.

Table 26: Educational Level of Employees by Attitudes Toward the Work Group, the Company, and Organizational Commitment

Group	N	Mean	SD	t-value	2-tail Prob
<b>Employee attitudes toward the work group</b>					
High school or less	27	3.82	.65	-.23	.62
More than high school	25	4.22	.59		
<b>Employee attitudes toward the company</b>					
High school or less	27	3.96	.58	-.42	.25
More than high school	25	4.03	.73		
<b>Organizational commitment</b>					
High school or less	27	3.90	.41	-1.47	.08
More than high school	25	4.10	.59		

Table 27 provides the summary of the significant findings for each of the fourteen hypotheses. The second hypothesis shows that statistically significant difference exists between both employee attitudes toward their work group, the company, and the most recent type

of training in which the employees participated.

The ninth hypothesis shows that gender of the employees was found to be statistically significant when associated with attitudes toward the company. Males have significantly stronger feelings toward the company than females.

The eleventh hypothesis shows that a significant difference exists between the age of employees and their attitudes toward the company.

The thirteenth hypothesis shows that the length of service of employees is statistically significant when associated with attitudes toward the work group, the company and overall organizational commitment.

The fourteenth hypothesis shows that the educational level of the employees is statistically significant when associated with overall organizational commitment.

Chapter V will provide a discussion of the results described above for the two research questions and the fourteen related hypotheses.

Table 27: Summary of Significant Findings for Each of the Fourteen Hypotheses by Attitudes Toward the Work Group, the Company, and Overall Organizational Commitment.

Hypothesis	Work Group	Company	Organizational Commitment
H-1 Number	0	0	0
H-2 Type	+	+	0
H-3 Length	0	0	0
H-4 Completion	0	0	0
H-5 Voluntary	0	0	0
H-6 Type Instr.	0	0	0
H-7 Usefulness	0	0	0
H-8 Performance	0	0	0
H-9 Gender	0	+	0
H-10 Position	0	0	0
H-11 Age	0	+	0
H-12 Company	0	0	0
H-13 Service	+	+	+
H-14 Education	0	0	+

+ - Positive Relationship

0 - No Relationship



## CHAPTER V

### DISCUSSION OF RESULTS

#### Introduction

The purpose of this study was to determine what relationships exist between organizational commitment and employee participation in training programs. A ten item set of questions measuring organizational commitment was used to study these relationships. A questionnaire was also used to analyze employee responses to items such as age, gender, length of service, educational level, and the type of training they received.

The review of the literature indicated that relationships do exist between organizational commitment and job related factors such as age, education, group attitudes, length of service, position, and belief in company values. Major benefits to increases in employee commitment, according to previous research, seem to be reduced turnover and absenteeism. No consistent link was found, as noted earlier, to productivity and commitment. Social implications such as moral commitments and belief in the value system of the organization were linked to increased levels of organizational commitment.

#### Summary

This Chapter will review the results of each research question and the related hypotheses shown in Chapter I. The subset of survey questions appear in Appendix B and is a fairly standard measurement for

employee attitudes toward their work group, the company, and organizational commitment (Stone & Porter, 1975; Ferris, 1981, Ferris & Aranya, 1983).

Training efforts that increase commitment levels of employees represent a sound investment for an organization. The importance of organizational commitment has been well researched and studied. Mowday, Porter and Steers (1982) found, as was mentioned above, that increased commitment reduces turnover and absenteeism. Organizations, as can be expected, are interested in reducing turnover and absenteeism to maintain their competitive edge. Steers (1977) noted that employees enter an organization expecting to satisfy certain needs. The challenge then becomes one of matching and meeting both organizational and individual expectations.

#### Limitations

A number of limitations were present in this study which should be addressed and considered when future research is planned.

The original sample included three companies with a total sample size of approximately 80 employees. One company elected not to participate, leaving a sample size of 55 employees representing two companies.

This reduction in the size of the sample may have had an impact on the diversity of the group relative to age, sex, education, and length of service. The two companies surveyed were also Iowa manufacturers. A broader geographical distribution of companies may have provided a better measure of the impact on training for a more diverse population.

The small sample size also required that the type of training be

grouped into three categories as noted earlier. A larger sample, again, would have allowed for additional groupings. The majority of the respondents also completed the training programs, 41 of 48, which may have limited the usefulness of this measure as it relates to commitment.

The sample population for this study indicated a rather high level of commitment as evidenced by a mean score of 3.99 for overall organizational commitment. This tends to indicate that while this study found the training variable to have some impact on commitment, the groups surveyed for this study initially showed considerable commitment to the organization. In spite of these limitations, the study did find a number of relationships between training and commitment to the organization. The next section will discuss and summarize these findings.

### Summary of Findings

#### Research Question One

The first central research question focuses on eight measures of training programs in which the employees participated. Those eight measures were as follows.

1. The number of training programs in which employees participated (Table 4).
2. The type of training programs in which employees participated (Table 5).
3. The length of training programs in which employees participated (Table 6).
4. The completion or non-completion of the most recent training programs (Table 7).

5. The voluntary or mandatory nature of the training programs (Table 8).
6. The type of instruction used in the training programs (Table 9).
7. The usefulness of the training in the employees current company or other companies (Table 11).
8. The ability of employees to perform their work with or without the training (Table 10).

Training of employees represents a large variable cost to an organization and measurements of the results of training efforts in American industry have been elusive. A wide range of training opportunities is available, all of which require investment of resources in the short-run, in exchange for anticipated returns in the long-run. The results of this study indicate that participation in training programs can affect employee commitment in certain situations.

#### Number of Training Programs

The number of training programs in which employees participated did not affect commitment. These results support the research on organizational commitment indicating that content is more important than structure or frequency in designing meaningful training programs. DeCottis and Summer (1987), for example, found that no one set of related personal characteristics or frequency of training activities led to increased commitment.

The number of training programs in which employees participated ranged from 0-20, with a mean of 6.3. Nine employees participated in more than ten training programs, while only 2 did not participate in any

training. The number of training programs, though somewhat varied, did not have an impact on commitment. Training has become an important tool in keeping pace with changes in the manufacturing environment. Employees may have recognized that advances in technology and increased competition will require training on an almost on-going basis.

#### Type of Training Programs

A statistically significant difference was found to exist between both employees attitudes toward their work group, the company, and the most recent type of training.

The type of training in which employees participated was divided into three categories: computer, machine/hands-on, and management. While the survey did not provide information about the exact nature or content of the training, management training tends to be broader-based and more likely to involve employees and issues from outside the immediate work group. Management training also involves less active participation by employees than machine/hands-on or computer training. Part 1 on Table 14 indicates a greater difference between the means for machine/hands-on training and attitudes toward the immediate work group. Work groups tend to cluster by machine or hands-on activities, and the results of this study indicate that machine or hands-on training had the greatest impact on employee attitudes toward the work group.

Management training, as noted earlier, typically involves broader-based issues such as company philosophies and goal setting. The training helps employees identify with company values and priorities much broader than those found in individual work groups. Part 2 of Table 14 indicates a greater difference between the means for management

training and employee attitudes toward the company.

The basic concepts of adult learning theory also suggest that training becomes more effective with learner involvement, which may explain the stronger association with the work group. Machine training, for example, typically requires active participation by the work group, tends to be hands-on in nature, and focuses on the needs of users relative to specific work group assignments.

#### Length of Training Programs

The length of training programs showed no significant correlation with attitudes toward the work group, the company, or organizational commitment. Training in an organization typically is directed by the Human Resources Department, and as Ogilive (1986) found, tailoring certain aspects of human resource programs tends to develop organizational commitment. A possible explanation for the lack of a relationship between length of training and measures of organizational commitment could be effective and responsive human resource practices. Company training usually relates to specific job responsibilities and production goals. The intent is also to allow individual employees to better perform tasks and increase productivity. Length, then, is not critical as most programs are conducted as part of the normal work day, and are designed to meet specific needs of the employee on an on-going basis.

#### Completion or Non-Completion of Training Program

The completion or non-completion of training programs in which employees participated was not found to be statistically significant

when associated with any of the three variables. This lack of significance was obviously affected by the fact that most employees did complete the training programs, 41 of 48 (Table 2).

The employees may not have had a choice in whether or not they completed a training program, based on changing production schedules or work assignments. The short-term, job related nature of most company training programs increases the likelihood that most programs are completed. Management directives may account more for completion and non-completion than lack of ability or persistence on the part of the employee. Cook and Wall (1980) found that organizational commitment may be influenced by an individual's confidence in management, which could suggest the influence of factors other than completion or non-completion as a determinant of commitment.

#### Voluntary or Mandatory Training

The voluntary or mandatory nature of training programs in which employees participated was not found to be statistically significant when associated with any of the three variables. Approximately half of the training programs were voluntary. The advent of self-directed work teams, employee participation in decision making, and continued influx of new technologies in the work place have created a need for on-going training efforts. Morris and Steers (1980) contend that these type of structural variables contribute to commitment, which would indicate that whether or not the employee was required to participate in the training was not an underlying cause of commitment. The real determinant can likely be explained by the level of an individual's participation in the decision making process, rather than the actual decision as to whether

the training was voluntary or mandatory.

Mandatory training has become commonplace in American industry due to government regulation. Federal law requires mandatory, annual training for all employees in hazardous materials, safety, environmental issues, and emergency response. New federal policy on air emission, diversity in the workplace, blood born pathogens, and the Americans with Disabilities Act have forced employees to provide a wide range of required training. Future research would no doubt need to separate this type of training from training that is directly related to the production process. Managers have labelled the training required by federal regulation as "non-value added" activity.

#### Type of Instruction

The type of instruction used in the training programs in which employees participated was not found to be statistically significant when associated with any of the three variables. Employees received a fairly even mix of classroom training, hands-on training, and a combination of the two. Research by Mathieu (1988) suggests that individuals who are satisfied with training programs tend to show higher levels of organizational commitment, which may mean here that the companies studied were providing the right mix of training. The actual type of training, then, did not influence commitment.

The type of training may have been influenced, as noted above, by governmental regulation. A portion of the federally mandated emergency response program must be hands-on in nature. First-aid, CPR, and safety related training require active participation by the employee. A future study may be helpful to separate classroom from hands-on training and



look only at "value added" activities which relate directly to the manufacturing process.

### Usefulness of Training

The usefulness of training programs in the employee's current company or in other companies was not found to be statistically significant when associated with any of the three variables. Aranya and Jacobson (1975) propose that a dual commitment can exist to one's occupation and to the organization, which may account for the high number of individuals who felt the training would be useful outside their current company (Table 11). Blau (1985) suggests that commitment to a career relates to one's attitude toward a vocation or profession. Purchasing procedures, human resource practices, and computer applications have all begun to require common form and function in industrial settings across the country, primarily due to increased governmental regulation mentioned earlier. Economic factors such as recession, increased foreign competition, and down-sizing of companies have created a mobile pool of workers who need skills that can be readily transferred in the market place.

### Ability to Perform Work

The ability of employees to perform their work with or without the training was not found to be statistically significant when associated with any of the three dependent variables. Almost 62 percent of the respondents indicated they could not perform their job without the training (Table 10). A possible explanation may lie in the variety of training programs in which employees are asked to participate. Priority

is usually given to those training activities that will increase productivity, add value, and reduce costs. Corporate policy, safety procedures, environmental concerns, and governmental regulations also dictate the need for training that can improve employee performance. O'Driscoll (1987) notes that clear procedures and regulations tend to increase levels of commitment, making usefulness dependent on company values and policy.

#### Research Question Two

The second central research question investigated six independent variables describing the nature of the employees and their relationships with organizational commitment. The six measures were:

1. The gender of employees (Table 3).
2. The position of employees (Table 3).
3. The age of employees (Table 3).
4. The company in which the employees works (Table 3).
5. The length of service of employees (Table 3).
6. The educational level of employees (Table 3).

#### Gender

The gender of the employees was found to be statistically significant when associated with attitudes toward the company. Male employees showed a more positive attitude toward the company than females. The sample size, as noted earlier, was predominately male and future research will no doubt be helpful in a more diverse employee population. Gender of the employees was not found to be statistically significant when associated with attitudes toward the work group or

organizational commitment. Bruning and Snyder (1983) suggested that management practices that assume differences between male and female employees may, in effect, create differences when these differences otherwise may not have been present. They did not find that gender played a significant role in determining organizational commitment. The findings here tend to support their research in both areas. The results found here do contradict some of the research done by Hrebiniak and Alutto (1972) which found females showing somewhat higher levels of organizational commitment. Further study would no doubt be useful as more and more women enter and remain in the work force. The changing nature and complexity of employment opportunities will require a trained and educated work force. Ideally, gender barriers will diminish and disappear as corporate decision makers focus on task completion rather than traditional roles men and women have played through the years in American industry. The ability of both men and women to freely access positions traditionally dominated by one gender has been the topic of much discussion. Governmental regulation, voluntary cooperation among private sector employers, and a shrinking pool of available human resources will require companies to breakdown gender barriers and develop trained workers for positions of all types within the company. Private industry has most likely been slower than the public sector in recognizing and dealing with these differences. Previous research tended to show generally that meeting the needs of employees, rather than their gender, is a more significant predictor of commitment.

### Position

The position of employees were divided into four categories: managers, assemblers, skilled workers, and clerical workers. A statistically significant difference was not found between the position of employees and their attitudes toward the work group, the company or organizational commitment.

The research on position as a predictor of organizational commitment has been quite consistent, generally finding that the position one holds in an organization is not in itself a reliable predictor of one's commitment. Bruning and Snyder (1983) found no support for position as a predictor of commitment, and Steers (1977), Wiener (1984), and McGee and Ford (1987) all suggest that belief in the goals and values of the organization are more reliable measures of organizational commitment. The continued emphasis on shared decision making, team building, and increased competition have created a corporate philosophy that requires participation and contribution from all members of the organization. Technology has also shifted the power structures in organizations away from the traditional top down method of decision making. Individuals in highly technical positions control more of the power and influence on decision making.

Professionals, as noted earlier, can sometimes develop a dual commitment. An accountant, for example, may be committed both to the employing organization and a professional association of accountants. There is some indication also that for professionals, commitment to the profession develops before commitment to the employing organization. On balance, position alone does not appear to be a predictor of

organizational commitment.

### Age

The relationship between the age of employees and their attitudes toward the company was found to be statistically significant. Older employees showed a more positive attitude toward the company than younger workers. A moderate correlation was found between older workers and commitment to the organization (Table 23). No significant correlation, however, was found between the age of employees and their attitudes toward the work group and organizational commitment. Pierce and Dunham (1987) found that older workers tended to be more committed to the company than younger workers and Mowday, Porter, and Steers (1982) noted that commitment develops over time. Older workers may also have had more opportunity to participate in training programs and were better able to identify with the goals and values of the company over time. More selective and clearly defined training goals for younger workers may be required. Older workers on the other hand, may not be as receptive to the influx of technology into the work place and more willing to participate in traditional training programs. The changes in American industry have made ownership of problems, solutions, and even distribution of profit a team-centered process. Organizational cultures and value systems have changed drastically since the decline of smoke stack industries in the early 1980s. These changes have made knowledge and the ability to deal with change critical to employees of all ages. Time is crucial as organizations re-tool for the stiff global competition of the 1990s. As organizations and the composition of the work force changes, age would appear to be less of a test of commitment

than identification with company values.

### Company

The company in which employees work was not found to be statistically significant when associated with any of the three variables. Meaningful comparison between companies relative to training and levels of organizational commitment may also need to consider factors such as the composition of the work force, whether a union is present, corporate culture, age of the work force, market share, involvement in a new technology, and degree of change. Research has shown that commitment levels are influenced by a variety of situational variables. Mathieu and Hamel (1989) suggested role strain can also influence commitment. Fukami and Larson (1984) found that predictors of organizational commitment do not necessarily predict commitment to a union. Future research involving three or more companies with background data available about their operation may provide some additional insight into these areas.

The manufacturing sector in America has experienced major changes in recent years. A common spirit of quality, productivity, and team work is becoming as commonplace as the notion of mass production at the turn of the century. Corporate leaders have espoused an "us" against "them" philosophy in meeting the reality of foreign competition. Information based decision making, continuous quality improvement, and self-directed work teams are no longer happening in only a few innovative American companies. They have become the method to ensure survival for both large and small companies from all sectors of the economy. The process may be different but the mission seems to be the

same. A larger sample from a more diverse manufacturing base would be an interesting topic for future research.

### Length of Service

The length of service of employees was found to be statistically significant when associated with each of the three variables. The employees with greater length of service to the company showed a more positive attitude toward the work group, the company, and overall organizational commitment. The strongest correlation was found between length of service and commitment to the work group. Previous research supports the findings reported here that commitment levels increase with length of service to the organization. Buchanan (1974) found that commitment increases with tenure, and Mowday, Steers, and Porter (1979) as well as Porter (1974) suggest that organizational commitment develops over time. The individual makes an investment in an organization over time, develops social contacts, and has a stake in the success of the organization. All of these factors, as well as structural variables such as increased competition, profit-sharing, and retirement benefits all seem to take on increased significance over time. This commitment tends, however, to stabilize over time and become less affected by day-to-day work experiences.

A few contrasting views are offered, however, by Lachman and Aranya (1986). They report that commitment to a profession may precede commitment to the organization. Professionals lacking social investments and skills, according to Sheldon (1971), may take longer to develop organizational commitment. Professionals who are involved in the organization also tended to show a dual commitment to their

profession and the organization.

### Educational Level

The educational level of employees was divided into two categories: those with a high school education or less, and those with more than a high school education. The educational level of employees was found to be statistically significant when associated with organizational commitment. No statistically significant relationship was found between educational level and attitudes toward the work group and the company.

The findings here do not support the findings of Welsch and LaVan (1981) in which they report that educational level was not related to commitment. Steers (1977) suggested that persons with more education may become more committed to their profession or trade than to the company in which they work. Additional research would no doubt be helpful in this area.

### Conclusions

The fourteen hypotheses in this study investigated eight aspects of employee training and six aspects of employee characteristics. The purpose of the investigation was to determine if training had an impact on employee attitudes toward their immediate work group, the company for which they worked, and overall level of commitment to the organization. Table 27 provides a summary of the findings for each measure.

The results of this study indicate that for the eight aspects of employee training, the number of training programs, the length of training programs, the completion or non-completion of training



programs, whether the programs were voluntary or mandatory, the perceived usefulness outside the current company, the type of instruction used, and the perceived ability to perform their work without the training were all found not to have an impact on levels of commitment for the two companies surveyed.

The final six measures of the nature of individual employees found that position and company of employment did not have an impact on levels of commitment.

The factors that did affect certain aspects of commitment, as described earlier, were the type of training, gender, age, length of service, and education.

The interesting conclusion is that various aspects of the actual training did not have an impact on commitment except for type of training. Machine/hands-on training affected commitment, but how often, the length, whether the training was completed and the other variables, as noted above, did not have an impact. This appears to indicate for the two companies surveyed here, that developers of training programs should integrate hands-on activities into the training process and not be overly concerned about structural variables.

Training that involved active participation by the employee such as machines, computers, and use of hands was more likely to affect commitment in this study. Additional information about the structural variables would no doubt be helpful in future studies. Factors such as time of day, scheduling, physical arrangements, and employee involvement were not considered in this study.

The most consistent conclusion found here was that length of

service affected commitment. Previous research has clearly shown that commitment develops over time and this study reaffirms the connection. The relationship was significant for all three measures: the work group, the company, and overall organizational commitment.

The results of this study suggest that efforts to increase commitment to the organization can be influenced by participation in training programs. This process does require development over time and should involve active participation by the employee. The last section of this study will discuss implications for future research.

#### Implications for Future Research

Policy-makers are concerned about the impact of foreign competition on the American economy. Economists have analyzed the global markets linked by the latest advances in modern technology. The personal computer has virtually revolutionized the way in which data is exchanged and manipulated for business purposes. Rapid change, new product development, and radically new organizational structures have made the old phrase "business as usual" obsolete.

The purpose of this study was to determine the impact of corporate training on organizational commitment. The results and discussion show that training does affect organizational commitment in some ways and not in others. As mentioned earlier, there are both positive and negative consequences of investments in training and levels of organizational commitment. Previous research has also shown commitment to be a reliable predictor of turnover and absenteeism, but not necessarily of job performance. An important topic for future research would be to determine if a link can be found to performance and productivity.

A free marketplace means many choices for consumers. The challenge for producers, then, is to provide the best product for the lowest price to gain the largest possible market share and maximize profits.

Producing a quality product, readily available, for a competitive price has been the measure of success in any business. In recent years, American companies have increasingly been losing business to foreign competition. The wave of new technology has brought with it many new programs designed to counter the loss of business. Corporate leaders have almost universally adopted the concept of Statistical Process Control (SPC), a scientific measurement tool used in the production process. Manufacturing Resource Planning II (MRP II) is a computerized plan of operation designed to streamline the production process and reduce costs. Just-in-Time production planning seeks to reduce lot sizes, inventory, and lead-time for delivery of products. These programs and many others like them have also been developed to reduce costs, increase profits, and make business in America more competitive in a world market. Measuring the impact of training amid this wave of change deserves consideration in future studies.

Training programs require significant investments in technology and time which require major changes in the way companies operate. Dealing with change and keeping current with demands of new technology presents a challenge for both employers and employees. A key component of this whole evolution is continuous training. Employees cannot be expected to accept and adapt to rapid change without access to the tools necessary to function effectively in this new environment.

The training activities of an organization represent investments in

money, time, and possibly short-term delays or cut-backs in production. These investments are justified in the interest of increased productivity, lower costs, and ultimately an improved bottom line. The decade of the 1980's brought with it a new way of doing business in America. Technological advances, increased foreign competition, and slow economic growth have forced companies to change the way they do business. Lot sizes of one instead of 1,000 are now the norm because of the need to reduce inventory and free up needed capital. Coaches have replaced managers to encourage team building, shared decision making, and self-directed work teams. A continuing breakdown is occurring in traditional union-management, "us and them" attitudes. Profit-sharing and other incentives are in, and piece work and passing the buck are out. Wiener (1982) suggested that organizational commitment is a process of accepting company goals and values on a personal level. Training programs are increasingly geared toward gaining employee acceptance of new corporate processes, policies, and visions. The evaluation of investments in training will require more sophisticated measurement as companies make tough choices in the new manufacturing environment. This evaluation would be a useful topic for future research.

The change in American industry has been a process and not an event. Training has played a key role in this process and has been a critical component in maintaining a quality, motivated, and productive work force. Martin and O'Laughlin (1984) found that quality of job training is a predictor of organizational commitment. Blau (1987) suggested that organizational commitment relates to one's feeling toward

the larger organization. The investment in training and developing a common corporate philosophy is likely to continue well in the 1990's

A major focus of future research may need to be in the evaluation of return-on-investment for training programs. General consensus seems to exist that training is important, but how much, how often, and the rate of return have escaped measurement for the most part. This may prove to be an interesting challenge and may add a much needed objective measure to corporate training activities in America.

APPENDIX A  
EMPLOYEE SURVEY

We would like to ask you a few questions about the kinds of training you have received since coming to work for this company. We hope to be able to use this information to help us better understand how much and what kind of training is being done in Iowa companies, and how these training programs might be improved. Your participation in this study is voluntary, and your responses will be shared with neither your employer nor your co-workers. While we hope that you will answer every question, you are free to discontinue at any time, or to ask us to clarify questions for you. We will be happy to provide you a summary report of our research results when the survey is completed.

### I. Training Programs

1. First, about how many different training programs have you participated in since coming to work for this company? (Think of "training programs" as any sort of job-related training you have received, whether formal or more "hands-on.")
2. For the next few questions, think about the most recent program in which you participated. What did you receive training in?
3. How long was the training program?
4. Did you complete the training program? Yes \_\_\_\_\_ No \_\_\_\_\_
  - 4a. If not, why not?
5. Were you required to take this training, or did you choose to do so?
 

Required \_\_\_\_\_ Chose \_\_\_\_\_

  - 5a. If you chose to get this training, did someone recommend it to you? Yes \_\_\_\_\_ No \_\_\_\_\_
  - 5b. What was this person's position?
6. What was the training program like? Was it mostly classroom instruction, mostly "hands-on" training, or about the same amount of each?
 

\_\_\_\_\_ Mostly classroom instruction  
 \_\_\_\_\_ Mostly "hands-on" training  
 \_\_\_\_\_ Some of each
7. Did it seem to you that the training applied mainly to how things are done in this company, or did it apply to how things are done in many companies?
 

\_\_\_\_\_ How things are done here  
 \_\_\_\_\_ How things are done in many companies

## II. Acquisition of Skills

Please think about the new skills you acquired by participating in the training program. To what extent do these skills involve: (Please circle the appropriate number.)

	Very much	Somewhat	A little	Not at all
1. Use of machinery (for example, lathe, forklift, press)	4	3	2	1
2. Use of computer	4	3	2	1
3. Managerial or supervisory skills	4	3	2	1
4. Acquaintance with new technology	4	3	2	1
5. Less supervision over how you do your job	4	3	2	1
6. Dealing with people	4	3	2	1
7. If your circled "4" or "3" or "2" for question 1 (use of machinery), please answer the following seven questions with respect to that answer. If you circled "1," skip to question eight.				

	Very much	Somewhat	A little	Not at all
a. To what extent are these new machine skills useful with your present employer?	4	3	2	1
b. To what extent would these new skills be useful at a similar employer?	4	3	2	1
c. To what extent would these new skills be useful at any employer?	4	3	2	1
d. To what extent do your new skills protect you against the possibility of lay-off?	4	3	2	1
e. To what extent do your new skills improve your chances of promotion with your present employer?	4	3	2	1



- f. To what extent do your new skills improve your chances of a pay raise with your present employer? 4 3 2 1
- g. To what extent do you actually use these new skills on your job? 4 3 2 1
8. If you circled "4" or "3" or "2" for question 2 (use of computer), please answer the following seven questions with respect to that answer. If you circled "1," skip to question 9.

- |  | Very<br>much | Somewhat | A<br>little | Not<br>at all |
|--|--------------|----------|-------------|---------------|
| a. To what extent are these new computer skills useful only with your present employer?              | 4            | 3        | 2           | 1             |
| b. To what extent would these new skills be useful at a similar employer?                            | 4            | 3        | 2           | 1             |
| c. To what extent would these new skills be useful at any employer?                                  | 4            | 3        | 2           | 1             |
| d. To what extent do your new skills protect you against the possibility of lay-off?                 | 4            | 3        | 2           | 1             |
| e. To what extent do your new skills improve your chances of promotion with your present employer?   | 4            | 3        | 2           | 1             |
| f. To what extent do your new skills improve your chances of a pay raise with your present employer? | 4            | 3        | 2           | 1             |
| g. To what extent do you actually use these new skills on your job?                                  | 4            | 3        | 2           | 1             |
9. If you circled "4" or "3" or "2" for question 3 (managerial skills), please answer the following seven questions with respect to that answer. If you circled "1," skip to question 10.

- |   | Very<br>much | Somewhat | A<br>little | Not<br>at all |
|---|--------------|----------|-------------|---------------|
| a. To what extent are these new managerial skills useful only with your present employer? | 4            | 3        | 2           | 1             |

- |  |   |   |   |   |
|--|---|---|---|---|
| b. To what extent would these new skills be useful at a similar employer?                            | 4 | 3 | 2 | 1 |
| c. To what extent would these new skills be useful at any employer?                                  | 4 | 3 | 2 | 1 |
| d. To what extent so you new skills protect you against the possibility of lay-off?                  | 4 | 3 | 2 | 1 |
| e. To what extent do your new skills improve your chances of promotion with your present employer?   | 4 | 3 | 2 | 1 |
| f. To what extent do your new skills improve your chances of a pay raise with your present employer? | 4 | 3 | 2 | 1 |
| g. To what extent do you actually use these new skills on your job?                                  | 4 | 3 | 2 | 1 |
10. If you circled "4" or "3" or "2" for question 4 (acquaintance with new technology), please answer the following seven questions with respect to that answer. If you circled "1," skip to question 11.

- |  | Very<br>much | Somewhat | A<br>little | Not<br>at all |
|--|--------------|----------|-------------|---------------|
| a. To what extent are these new new technology skills useful only with your present employer?        | 4            | 3        | 2           | 1             |
| b. To what extent would these new skills be useful at a similar employer?                            | 4            | 3        | 2           | 1             |
| c. To what extent would these new skills be useful at any employer?                                  | 4            | 3        | 2           | 1             |
| d. To what extent so you new skills protect you against the possibility of lay-off?                  | 4            | 3        | 2           | 1             |
| e. To what extent do your new skills improve your chances of promotion with your present employer?   | 4            | 3        | 2           | 1             |
| f. To what extent do your new skills improve your chances of a pay raise with your present employer? | 4            | 3        | 2           | 1             |

g. To what extent do you actually use these new skills on your job?      4            3            2            1

11. If you circled "4" or "3" or "2" for question 5 (less supervision), please answer the following seven questions with respect to that answer. If you circled "1," skip to question 12.

	Very much	Somewhat	A little	Not at all
a. To what extent are these new discretion skills useful only with your present employer?	4	3	2	1
b. To what extent would these new skills be useful at a similar employer?	4	3	2	1
c. To what extent would these new skills be useful at any employer?	4	3	2	1
d. To what extent do your new skills protect you against the possibility of lay-off?	4	3	2	1
e. To what extent do your new skills improve your chances of promotion with your present employer?	4	3	2	1
f. To what extent do your new skills improve your chances of a pay raise with your present employer?	4	3	2	1
g. To what extent do you actually use these new skills on your job?	4	3	2	1

12. If you circled "4" or "3" or "2" for question 6 (dealing with people), please answer the following seven questions with respect to that answer. If you circled "1," skip to question 13.

	Very much	Somewhat	A little	Not at all
a. To what extent are these new people skills useful only with your present employer?	4	3	2	1
b. To what extent would these new skills be useful at a similar employer?	4	3	2	1

- |  |   |   |   |   |
|--|---|---|---|---|
| c. To what extent would these new skills be useful at any employer?                                  | 4 | 3 | 2 | 1 |
| d. To what extent so you new skills protect you against the possibility of lay-off?                  | 4 | 3 | 2 | 1 |
| e. To what extent do your new skills improve your chances of promotion with your present employer?   | 4 | 3 | 2 | 1 |
| f. To what extent do your new skills improve your chances of a pay raise with your present employer? | 4 | 3 | 2 | 1 |
| g. To what extent do you actually use these new skills on your job?                                  | 4 | 3 | 2 | 1 |

13. Have you received a promotion since joining this company?

Yes \_\_\_\_\_ No \_\_\_\_\_

13a. If yes, thinking about all the training you have received here, do you think you would have received this promotion without the training?

Yes \_\_\_\_\_ No \_\_\_\_\_

14. Have you received a pay raise since joining this company?

Yes \_\_\_\_\_ No \_\_\_\_\_

14a. If yes, thinking about all the training you have received here, do you think you would have received this pay raise without the training?

Yes \_\_\_\_\_ No \_\_\_\_\_

15. Could you effectively perform your current job without having received the training?

Yes \_\_\_\_\_ No \_\_\_\_\_

### III. A few questions about your job

1. What is your job title?
2. What are your duties and responsibilities on this job?

3. How long would it take someone who hasn't worked at this job before but who has the same formal schooling as you (not counting training received here or with another employer) to learn how to do your job properly?

4. When you first started your job, did you have to acquire any new knowledge or skills to learn to do your job properly?

Yes \_\_\_\_\_ No \_\_\_\_\_

4a. If yes, how would you describe these skills?

5. What minimum level of formal education do you feel is needed by a person in your job?

\_\_\_\_\_ Less than high school  
 \_\_\_\_\_ High school  
 \_\_\_\_\_ Some vocational training  
 \_\_\_\_\_ College or university degree  
 \_\_\_\_\_ Advanced degree

6. About how many years in total have you worked for pay on a full-time basis since you were 16 years old?

7. Do you belong to a union?

Yes \_\_\_\_\_ No \_\_\_\_\_

8. How much do you get paid each pay period for this job, before taxes and other deductions are made?

9. How long is this pay period?

10. How many hours do you work at this job in a typical week?

11. Do you have some skills from your previous experience and training that you would like to be using, but can't use on your present job?

Yes \_\_\_\_\_ No \_\_\_\_\_

12. For how long have you worked for your present employer?

\_\_\_\_\_ years and \_\_\_\_\_ months

13. For how long have you had the specific job you now have?

\_\_\_\_\_ years and \_\_\_\_\_ months

14. When you first came to work for your present employer, was it roughly in the job you now have or was it in a different job?

- Same job  
 Different job

If you answered "same" to question 14, skip to question 17.  
 Otherwise, continue with question 15.

15. How many times have you changed jobs or positions since coming to work for your present employer?
16. How many of these changes do you consider as moves to a higher level job or position?
17. What type of occupation do you expect to be in five years from now?
18. What kind of business might that be in?
19. What types of things would you expect to do on this job?
20. How much of a help do you think your present job is in preparing you for the job you expect to have five years from now?

- A great help  
 Some help  
 Only a little help  
 No help at all

21. How useful and valuable will your present job skills be five years from now?

- Very useful and valuable  
 Somewhat useful and valuable  
 A little useful and valuable  
 Not at all useful or valuable

22. How easily could you get a job doing this same kind of work at similar wages and conditions with another employer in this geographical area?

- Very easily  
 Somewhat easily  
 Not too easily  
 Very difficult

23. How easily could you get a job doing this same kind of work at similar wages and conditions with another employer if you moved from here?

- Very easily  
 Somewhat easily  
 Not too easily  
 Very difficult

24. Do you think there is a shortage of workers in this geographical areas who have your experience, training, and skills?

- Yes  
 No

Think of a job you would regard as ideal from the work point of view. How does your present job compare with this?

25. On a scale form "1" to "7" with 7 representing an ideal job, how would you rank your current job?

1      2      3      4      5      6      7

Would you consider leaving your present employer for a related job in another company for a moderate or slight increase in .....

	Definitely yes	Undecided	Definitely no
26. pay	3	2	1
27. freedom	3	2	1
28. status	3	2	1
29. responsibility	3	2	1
30. opportunity to get ahead	3	2	1
31. friendliness of co-workers	3	2	1

Below is a list of things that might describe a person's job.

Do these things describe your job.....	Very much	Somewhat	A little	Not at all
32. How much does your job require that you have to keep learning new thing?	4	3	2	1
33. How much does your job require you to work very fast?	4	3	2	1
34. How much freedom does it allow as to how you do your work?	4	3	2	1

- |   |   |   |   |   |
|---|---|---|---|---|
| 35. To what extent does it require a high level of skill?   | 4 | 3 | 2 | 1 |
| 36. To what extent does it require you to work very hard?   | 4 | 3 | 2 | 1 |
| 37. How much does it require you to exert a lot of physical effort?   | 4 | 3 | 2 | 1 |
| 38. How much does your job allow you to make a lot of decisions on your own?  | 4 | 3 | 2 | 1 |
| 39. How much does your job require you to be creative?  | 4 | 3 | 2 | 1 |
| 40. How much does your job require you to do things that are very repetitious (do things over and over)?                    | 4 | 3 | 2 | 1 |
| 41. How much does your job allow you to do a variety of different things?   | 4 | 3 | 2 | 1 |
| 42. How much does your job require you to be skilled in using your hands?   | 4 | 3 | 2 | 1 |
| 43. How much does your job allow you to take part in making decisions that affect you?                                      | 4 | 3 | 2 | 1 |
| 44. How likely is that in the new few years machines or computers will be doing a lot of the things you now do on your job? |   |   |   |   |

- Very likely  
 Somewhat likely  
 A little bit likely  
 Not at all likely

45. If this happens, would you be out of a job, or would your employer find something else for you to do, or would your job just be adapted to the machine or computer, or what?

- Out of job  
 Employer would find something else  
 Job would be adapted



46. To what extent are the people in your immediate work group friendly?  
(Your immediate work group consists of the people with whom you have the most contact.)

- Very friendly  
 Quite  
 Somewhat  
 Very little  
 Not friendly at all

47. To what extent are the people in your immediate work group helpful to you in getting your job done?

- Very helpful  
 Quite  
 Somewhat  
 Very little  
 Not helpful at all

48. To what extent do you look forward to being with the members of your immediate work group each day?

- Very much look forward  
 Quite  
 Somewhat  
 Very little  
 Don't look forward to being with them at all

49. To what extent do the people in your immediate work group take a personal interest in you?

- Very interested  
 Quite  
 Somewhat  
 Very little  
 Not interested at all

How much do you agree or disagree with each of the following statements about this company?

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
50. I talk about this company to my friends as a great place to work for	5	4	3	2	1
51. I find that my values and values of this company are very similar	5	4	3	2	1

52. I am proud to tell others that I am part of this company 5 4 3 2 1
53. I am extremely glad that I chose this company to work for over others I was considering at the time I joined 5 4 3 2 1
54. I really care about the fate of this company 5 4 3 2 1
55. For me this is the best of all possible companies for which to work 5 4 3 2 1
56. Is there one particular person you think of as your immediate supervisor or boss - some one who is directly over you?

Yes \_\_\_\_\_ No \_\_\_\_\_ (If you marked "no," go to question 72).

Which of the following things are true of your immediate supervisor?

- |  | Very true | Somewhat true | Not too true | Not at all true |
|--|-----------|---------------|--------------|-----------------|
| 57. My supervisor insists that those he/she supervises follows the rules?                            | 4         | 3             | 2            | 1               |
| 58. ....lets those he/she supervises set their work pace?  | 4         | 3             | 2            | 1               |
| 59. Knows his/her own job well?  | 4         | 3             | 2            | 1               |
| 60. Encourages those he/she supervises to develop new ways of doing things?                          | 4         | 3             | 2            | 1               |
| 61. Insists that those under him/her work hard?  | 4         | 3             | 2            | 1               |
| 62. How true is it that your supervisor maintains high standards of performance in his/her own work? | 4         | 3             | 2            | 1               |
| 63. Lets those he/she supervises alone unless they want help?  | 4         | 3             | 2            | 1               |
| 64. Pays attention to what you're saying?  | 4         | 3             | 2            | 1               |

65. Is willing to listen to your job-related problems?	4	3	2	1
66. Shows you how to improve your performance?	4	3	2	1
67. Encourages those he/she supervises to work as a team?	4	3	2	1
68. Offers new ideas for solving job-related problems?	4	3	2	1
69. Encourages those he/she supervises to exchange opinions and ideas?	4	3	2	1
70. Encourages those he/she supervises to give their best effort?	4	3	2	1
71. Has influence with his/her own supervisor?	4	3	2	1

How much do you agree or disagree with each of the following statements for a person with your qualifications in this company?

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
72. There is little chance to get ahead	5	4	3	2	1
73. Promotions are regular	5	4	3	2	1
74. Promotions are infrequent	5	4	3	2	1
75. There is a good opportunity for advancement	5	4	3	2	1
76. I'm in a dead-end job	5	4	3	2	1

#### V. Some Background Information

1. What is the highest grade or year of school you attended?
2. Did you complete that year of school?

\_\_\_\_\_ Yes      \_\_\_\_\_ No

3. Did you take any vocational courses in high school?

Yes  No

4. Have you, in addition, ever attended a community college, trade school, or special vocational training school?

Yes  No

4a. If yes, what areas did you study?

4b. Do you have a degree or certificate from a community college, trade school, or special vocational training school?

Yes  No

5. Have you ever served in the military?

Yes  No

5a. If yes, what kinds of non-military training did you receive?

5b. Have you found this training useful to you on your current job?

Yes  No

6. In what year were you born?

7. What is your ethnic or racial identification? That is, do you think of yourself as a member of a distinct racial or ethnic group?

Black or African American

White

Hispanic

Asian American

Native American

Other

8. Do you have a spouse or partner who is currently employed?

Yes  No

8a. If yes, what is your spouse's or partner's approximate annual income?

9. Are you?

Male  Female

Those are all the questions we have. Please feel free to add any additional comments on matters we may have missed. Thank you again for your help.

**APPENDIX B**  
**SUBSET OF SURVEY QUESTIONS**

46. To what extent are the people in your immediate work group friendly? (Your immediate work group consists of the people with whom you have the most contact.)

- Very friendly  
 Quite  
 Somewhat  
 Very little  
 Not friendly at all

47. To what extent are the people in your immediate work group helpful to you in getting your job done?

- Very helpful  
 Quite  
 Somewhat  
 Very little  
 Not helpful at all

48. To what extent do you look forward to being with the members of your immediate work group each day?

- Very much look forward  
 Quite  
 Somewhat  
 Very little  
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49. To what extent do the people in your immediate work group take a personal interest in you?

- Very interested  
 Quite  
 Somewhat  
 Very little  
 Not interested at all

How much do you agree or disagree with each of the following statements about this company?

50. I talk about this company to my friends as great place to work.

- Strongly agree  
 Agree  
 Neither agree nor disagree  
 Disagree  
 Strongly disagree

51. I find that my values and the values of this company are very similar.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

52. I am proud to tell others that I am part of this company.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

53. I am extremely glad that I chose this company to work for over others I was considering at the time I joined.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

54. I really care about the fate of this company.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

55. For me this is the best of all possible companies for which to work.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

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