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Perceptions of managers' and hourly employees' job satisfaction resulting from human resource development training

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PERCEPTIONS OF MANAGERS' AND HOURLY EMPLOYEES' JOB SATISFACTION RESULTING FROM HUMAN RESOURCE DEVELOPMENT TRAINING

A Dissertation

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Doctor of Philosophy

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by

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APPROVAL SHEET

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ABSTRACT

Companies have realized the importance of investing in human capital in today's competitive workplace. Human resource development (HRD) programs have been implemented to meet this need. One component of an HRD program is training. One goal of HRD training is an increased level of employee job satisfaction.

The study focused on two different problems in training. One problem was to determine if there were differences in perceptions of job satisfaction of managers who received HRD training as compared to managers who did not receive HRD training. A second problem of this study was to determine if there were differences in perceptions of job satisfaction of hourly employees who received HRD training as compared to hourly employees who did not receive HRD training. Dimensions of job satisfaction examined were intrinsic, extrinsic, and general.

Twenty-seven managers and 71 hourly employees at Digital Audio Disc Corporation (DADC) in Terre Haute, Indiana completed the Minnesota Satisfaction Questionnaire in December 1991. Two-tailed t-tests were used to determine if significant differences existed at the .05 level of significance.

There was a significant difference in the perceptions of intrinsic job satisfaction between the trained and the untrained managers at DADC. There were no significant

differences found in the perceptions of extrinsic and general job satisfaction between trained and untrained managers.

There were no significant differences in the perceptions of intrinsic, extrinsic, and general job satisfaction for trained compared to untrained hourly employees. Further research of the effects of HRD programs is warranted.

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INTRODUCTION

Business leaders are realizing that in the current world marketplace their return on investment in employee development is greater than it is for a comparable equipment investment (Peters, 1987). As a result of this, company officials have a vested interest in improving the education, skills, and job satisfaction of their employees. According to Johnston (1987), the key to economic growth and the ability of the industrial complex in the United States to remain competitive on the world market lies in the improvement of the skills, knowledge, and attitudes of each employee.

Human resource development (HRD) programs have been implemented at many companies in an attempt to increase the level of job satisfaction of the individual worker. Nadler and Nadler (1989), pioneers in the field of HRD, described human resource development as an "organized learning experience provided by employers within a specified period of time to bring about the possibility of performance improvement and/or personal growth" (p. 10). They include training and education as two activity areas of HRD.

Training is learning focused on the learners' present job. Education is learning focused on possible future jobs.

Human capital, sometimes identified as a subarea within HRD, is used by business to define the concept of maximizing the skills of the worker in the productive process. The anticipated return to a business investing in human development is an increased profit ratio. One of the indices of improved motivation by workers would seemingly be the level of job satisfaction experienced by each individual (Deming, 1982).

Job satisfaction is defined as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (Locke, 1976, p. 1300).

> People come to work with varying levels of job expectations. These expectations may vary not only in quality (different people may value different things in a job), but also in intensity. Based on work experiences, people receive outcomes, or rewards, from the job. These outcomes include not only extrinsic rewards like pay and promotion, but also a variety of intrinsic rewards such as satisfying co-worker relations and meaningful work. To the extent that the outcomes received by the employees meet or exceed expectations, we would expect the employee to be satisfied with the job and wish to remain. (Steers, 1984, p. 430)

Job satisfaction can be measured by different research instruments: (a) rating scales, (b) critical incidents, (c) interviews, (d) overt behavior, and (e) action tendencies. Rating scales and direct verbal self-reports are the technique most popular for assessing job satisfaction. Several job satisfaction rating scales exist. One rating scale that has been used in a number of different

studies is the Minnesota Satisfaction Questionnaire (MSQ) (Steers, 1984).

The Digital Audio Disc Corporation (DADC) of Terre Haute, Indiana, part of Sony, is a manufacturing company which has introduced and used an HRD training program. The use of high technology has made this company successful in the manufacturing of audio discs, CD-ROMs, and laser discs. The company is the nation's largest producer of audio discs. DADC's success in production served as the basis for the construction of an addition to the plant for its video disc operation (W. Maccaroni, personal communication, April 3, 1991).

Industrial training, as a part of an HRD program, has been a centralized function of DADC since April, 1989. Prior to this time, DADC had conducted training based on individual department demands. Upon demand by management, training had been provided for a worker's specific need. The company had increased the number of full-time employees from 100 in December 1984 to over 635 by December 1989. This led to the decision to centralize the training programs under human resource development auspices in May of 1989 (J. Burger, personal communication, May 1, 1991).

One of the goals of the HRD training program was to create a more satisfying work environment, which it was reasoned would lead to more productive workers. Job satisfaction was a key element to this goal (W. Maccaroni, personal communication, April 3, 1991).

This study examined the perceptions of managers and hourly employees resulting from DADC's HRD training programs. The premise of this study was that HRD training will affect employees' job satisfaction. An employee's perception of job satisfaction can alter the employee's productivity and directly influence the company's output. This in turn would improve quality and quantity of the product, therefore improving competitive position in the world marketplace (Steers, 1984).

Statement of the Problem

This study focused on two different problems in training. They were:

1. To determine if there were differences in perceptions of job satisfaction of managers who received HRD training as compared to managers who did not receive HRD training.

2. To determine if there were differences in perceptions of job satisfaction of hourly employees who received HRD training as compared to hourly employees who did not receive HRD training.

Dimensions of job satisfaction, as measured by the Minnesota Satisfaction Questionnaire, were intrinsic, extrinsic, and general. Specifically, the study addressed the following propositions:

1. There is a difference in intrinsic job satisfaction of DADC managers who have participated in a DADC-directed-

HRD training program as compared to DADC managers who have not participated in a DADC-directed-HRD training program.

2. There is a difference in extrinsic job satisfaction of DADC managers who have participated in a DADC-directed-HRD training program as compared to DADC managers who have not participated in a DADC-directed-HRD training program.

3. There is a difference in general job satisfaction of DADC managers who have participated in a DADC-directed-HRD training program as compared to DADC managers who have not participated in a DADC-directed-HRD training program.

4. There is a difference in intrinsic job satisfaction of DADC hourly employees who have participated in a DADC-directed-HRD training program as compared to DADC hourly employees who have not participated in a DADC-directed-HRD training program.

5. There is a difference in extrinsic job satisfaction of DADC hourly employees who have participated in a DADC-directed-HRD training program as compared to DADC hourly employees who have not participated in a DADC-directed-HRD training program.

6. There is a difference in general job satisfaction of DADC hourly employees who have participated in a DADC-directed-HRD training program as compared to DADC hourly employees who have not participated in a DADC-directed-HRD training program.

Significance of the Study

The purpose of the study was to determine if managers and hourly employees with HRD training experience greater job satisfaction than employees not receiving training. Results of this study provided DADC's HRD Training Department with information concerning its employees' job satisfaction. The information obtained from this study would be used appropriately by DADC to modify its training programs.

The training aspect of an HRD program has as its goal an increase in employee proficiency and knowledge of the assigned duties, tasks, and steps of a given job. The HRD training effort may result in maximizing efforts of the company's employees. Training managers, top management personnel, designers, evaluators, and supervisors will benefit from reviewing the results of this study.

Limitations

This study was limited by the following factors.

1. The study was conducted at one company, therefore inferences made to other companies may be open to judgement.

2. The study only involved delegation training for managers and communication-skills training for hourly employees. Therefore, inferences made to other types of training may be open to judgement.

3. The completeness and accuracy of the lists of trained and untrained managers, and trained and untrained hourly employees provided by the DADC Training Department.

Delimitations

The study was delimited by the following factors.

1. Fifty managers and one hundred hourly employees at DADC were surveyed.

2. All data for this research study were collected by the end of December, 1991.

3. Data concerning only the categories of intrinsic, extrinsic, and general job satisfaction of the employees were collected by the use of the MSQ.

4. Hourly "trained" employees were selected from the packaging department while hourly "untrained" employees were selected from different departments throughout the entire plant.

5. The researcher purposefully did not compare managers to hourly employees.

Definition of Terms

The following definitions were used in this study.

Digital Audio Disc Corporation (DADC) referred to a separate entity of Sony Software Corporation, Digital Audio Disc Corporation, Terre Haute, Indiana. This company produces audio discs, CD-ROMs, and laser discs. Management is composed of approximately sixty-employees, including five HRD personnel.

Job Satisfaction referred to the measurement of employees' work adjustment as assessed by the Minnesota Satisfaction Questionnaire. The MSQ is a rating scale consisting of 100 items, with each item referring to a

reinforcer in the work environment. The 100 items of the MSQ are grouped into twenty subscales of five items each. These subscales are further grouped into three scales. These scales are: intrinsic job satisfaction, extrinsic job satisfaction, and general job satisfaction. The participants' responses indicate how satisfied they are on their present jobs (Weiss, Dawis, England, & Lofquist, 1967).

Intrinsic Job Satisfaction referred to the results of the employees' evaluations of work adjustment from an internal frame of reference as measured by the Minnesota Satisfaction Questionnaire. Intrinsic reinforcement factors include type of work, achievement, and ability utilization (Weiss et al., 1967).

Extrinsic Job Satisfaction referred to the results of the employees' evaluations of work adjustment from an external frame of reference as measured by the Minnesota Satisfaction Questionnaire. Extrinsic reinforcement factors include advancement, supervision, compensation, and company policies and practices (Weiss et al., 1967).

General Job Satisfaction referred to the results of the employees' evaluations of work adjustment from their internal and external frame of reference as measured by the Minnesota Satisfaction Questionnaire. This scale uses twenty items (one from each of the twenty subscales), yielding a score ranging from 20 to 100 (Weiss et al., 1967).

Managers referred to top-level and middle-level managers, supervisors, and company officials whose working hours are defined by the job description, receive a salary, and are exempt (flexible work schedules) employees.

Hourly employees referred to clerical workers, skilled and unskilled workers concentrated in manufacturing, and other employees who work by the hour, are paid by the hour and are nonexempt (locked into shift schedules) employees.

Human Resource Development (HRD) referred to organized learning experiences and benefits provided by DADC such as training, interviewing, higher education opportunities, basic skills evaluation and improvement, insurance, company store, compensation, employee security and safety, and social functions for employee and family. The goal of HRD is to bring about the possibility of performance improvement and/or personal growth (Nadler & Nadler, 1989).

Human Resource Development Training Program referred to the organized activities such as computer applications, delegation, decision making, and communication-skills training, coordinated by the Human Resource Development Department at DADC to facilitate employees' learning in order to improve performance on the present job (J. Burger, personal communication, May 1, 1991).

Assumptions

The following assumptions were made.

1. The two manager samples used in this study were similar in nature with the exception of the HRD delegation

training factor. Likewise, the two hourly employee samples were similar in nature with the exception of the HRD communication-skills training factor. The samples included managers or hourly employees who work for the same company, DADC, Sony U.S.A., Terre Haute, Indiana.

2. The subjects in this study were able to assess their own responses to the MSQ instrument and responded accurately.

3. A one time use of the MSQ instrument was sufficient to measure differences in perceptions of job satisfaction of employees who have participated in an HRD training program and the job satisfaction of employees who have not participated in an HRD training program.

4. The MSQ instrument accurately assessed employee's job satisfaction in categories of intrinsic, extrinsic, and general job satisfaction.

5. The samples were representative of the four categories of employees at DADC.

6. The participants in the survey were honest in their responses.

7. The lists of employees provided by the HRD Training Department at DADC, from which the samples were selected, were complete and accurate.

Organization of the Study

In this chapter, background of the problem, statement of the problem, significance of the study,

limitations of the study, delimitations of the study, definition of terms, and assumptions are presented.

Chapter 2 includes the review of related literature and theoretical basis for the selection of the MSQ instrument. Chapter 3 contains information explaining the design and methodology of the this study, including methods of sample selection, data collection, and analysis of results. Chapter 4 includes the data analysis and findings of the study. Chapter 5 provides a summary of the findings, conclusions, a discussion of the results, and recommendations for further study.

Summary

This study investigated the perceptions of job satisfaction resulting from human resource development training of managers and hourly employees as measured by the Minnesota Satisfaction Questionnaire. A group of managers who had participated in HRD training were compared to a group of managers who had not participated in HRD training.

Secondly, a group of hourly employees who had participated in HRD training were compared to a group of hourly employees who had not participated in HRD training. Each of the groups were viewed by their intrinsic job satisfaction, extrinsic job satisfaction, and general job satisfaction.

Chapter 2

A REVIEW OF RELATED LITERATURE

A survey of the literature and related research was conducted to serve as background for this study. After the survey of literature was completed, no identical or similar research studies were found; however, a great deal of literature pertaining to job satisfaction and HRD training exists and relates to this study.

This chapter is divided into the following four sections: (a) job satisfaction, (b) instrumentation, (c) related studies, and (d) HRD training. The following section examines the concept of job satisfaction.

Job Satisfaction

Job satisfaction seems to be derived from a variety of circumstances. From a technical point of view, job satisfaction is "any combination of psychological, physiological, and environmental circumstances that causes a person truthfully to say, 'I am satisfied with my job'" (Hoppock, 1935, p. 47).

There are varying degrees of job satisfaction. Complete or global satisfaction is undesirable, "like an eternal playground to a man who likes his work" (Hoppock,

1935, p. 51). Optimum satisfaction relieves us from the tension of a frantic and persistent urge to do something else. A better understanding of what causes job satisfaction is desirable, because it may help "to relieve that intense and painful dissatisfaction which injures both the individual and the society in which he lives" (Hoppock, 1935, p. 52).

There are several characteristics of the concept of job satisfaction. One is that satisfaction is an emotional response to a job situation. Only introspection will allow us to fully understand job satisfaction (Steers, 1984).

Another characteristic is that job satisfaction is best understood as a discrepancy. The concept of job satisfaction is a result of how much people want from their jobs compared to how much they actually receive (Locke, 1969).

People receive rewards or outcomes from their jobs based on work experiences. Outcomes may include extrinsic rewards like pay and promotion. A variety of intrinsic rewards such as meaningful work and satisfying co-worker relations may also be outcomes. If these outcomes received by the employee meet or exceed expectations, the employee would be expected to be satisfied with the job and wish to remain (Steers, 1984).

Job satisfaction actually represents several related attitudes. Five job dimensions that represent the most prominent characteristics of a job about which people have

affective responses are: (a) the extent to which the work itself is interesting and provides opportunities for learning and accepting responsibility, (b) the amount, method and perceived equity of the pay, (c) realistic opportunities for advancement, (d) supervisors who are considerate and interested in their employees, and (e) co-workers who are friendly, competent and supportive (Smith, Kendall, & Hulin, 1969).

"The general trend in business in the last five years has been towards growing employee dissatisfaction according to many of the research associations and news magazines which study business climate" (Ziglar, 1986, p. 204). Ziglar (1986) states the major goal of his book, Top Performance, is to improve employee job satisfaction, ". . . which is a must for greater productivity" (p. 205).

There are many ways in which job satisfaction can be measured. Rating scales, critical incidents, interviews, overt behaviors, and action tendencies may be used (Locke, 1976). "The most popular technique for assessing job satisfaction is the use of rating scales" (Locke, 1976, p. 431). Several instruments using rating scales to assess job satisfaction exist (Smith et al., 1969). Some of these job satisfaction instruments will be presented in the following section.

Instrumentation

Used since the 1930s, rating scales are directed self-reports. The Hoppock Job Satisfaction Blank is one of the

most widely used and oldest measures of job satisfaction. This instrument represents a global approach to measuring job satisfaction. The premise of this instrument is that the workers collectively weigh their likes and dislikes for the job in responding to the questions. Scores can be expressed as a weighted index of satisfaction which is based on standard deviation values for each item multiplied by the response percentage of a norm group. Scores can also be expressed as simple averages (Hoppock, 1935).

Another widely used rating scale instrument is the Cornell Job Description Index (JDI). It is divided into five scales consisting of 72 items. This instrument measures job satisfaction as it relates to work, supervision, promotions, people, and pay. Employees are presented with a series of adjectives that may or may not describe these five scales of their job. Employees are asked to answer either yes, no, or do not know to each item, indicating the extent to which each adjective applies to their job. The JDI has extensive normative data available. This allows employers in other organizations to determine relative standings (Smith et al., 1969).

The Tear Ballot For Industry addresses an employee's job and work situation. It is composed of ten statements concerned with the following areas: (a) attitudes toward supervision, (b) working conditions, (c) co-workers, (d) income, and (e) security and the company in general (Kerr, 1952).

Brayfield and Rothe (1951) developed an index of job satisfaction. This index was constructed by using a combination of Thurston and Likert scaling methods. It is composed of eighteen items providing an index for over-all job satisfaction. Scores on this index are highly correlated with scores on the Hoppock scale.

One scale used in a variety of studies is the Minnesota Satisfaction Questionnaire (Lofquist & Dawis, 1969). This instrument measures perceptions of intrinsic, extrinsic and general job satisfaction. The MSQ consists of 100 items. Each item refers to a reinforcer in the work environment. Responses of very satisfied, satisfied, neither, dissatisfied, and very dissatisfied are available. The respondents indicate how satisfied they are with the reinforcer relative to their present jobs (Weiss et al., 1967).

These instruments have been used to study employee job satisfaction in a variety of situations. Reviews of studies concerned with the aspects of job satisfaction, as it relates to the workplace, are presented in the following section.

Related Studies

Newsome (1976) studied the relationships between job satisfaction and personality needs of college student volunteers at Indiana State University. One hundred ninety college student volunteers completed the Edwards Personal

Preference Schedule and the Minnesota Satisfaction Questionnaire.

The Pearson Product Moment Correlation Technique and multiple linear stepwise regressions were used to test the data at the .05 level of significance. A significant negative correlation between support and intrinsic job satisfaction was found. As university support increased, the intrinsic job satisfaction of the college student volunteers at Indiana State University decreased.

The results of the study also indicated that external and general reinforcement do not contribute to a defined pattern of personality needs of college student volunteers. In addition, the results exhibited that personality needs alone are not enough for the prediction of job satisfaction of college student volunteers.

Brief and Roberson (1989) used the Minnesota Satisfaction Questionnaire to measure the job satisfaction in 144 workers who were enrolled in evening graduate school courses. The Job Affect Scale was also used to measure positive and negative affect. A measure of job cognition was administered.

The results of the Brief and Roberson study showed that the measures of job satisfaction varied considerably in terms of their cognitive and affective content. The results of this study indicated that organization of the FACES scale was the most balanced job satisfaction scale in capturing positive and negative affects and cognition.

A study of job satisfaction among school psychologists was conducted by Levinson (1989). Three hundred sixty-two psychologists were administered the MSQ. The results indicated that the school psychologists who displayed job satisfaction planned to remain in their current positions and in their current profession for more than five years. The researcher found that school psychologists belonging to a state association expressed significantly more job satisfaction than those psychologists not affiliated with a state association.

Levels of value endorsement and job satisfaction were examined in a study by Taylor, Madill, and Macnab (1990). Conducted in Canada, this study was a matched peer study of 55 male and 55 female occupational therapists. Data were collected with the Life Roles Inventory and the Minnesota Satisfaction Questionnaire. The results indicated that males endorsed risk and advancement more than females. The findings also showed that females endorsed social relationships at a higher level than males. In terms of participation, commitment, and role value, males viewed studying as more important than their female counterparts. No difference in the levels of job satisfaction was found between the two groups.

In one study conducted in Saudi Arabia, the Minnesota Satisfaction Questionnaire was used to gather the perceptions of levels of commitment to organizations, job satisfaction, and work values. Fifty-two Saudi and ninety-

three expatriate managers responded to the questionnaire (Yavas, Luqmani, and Quraeshi, 1990). The members of the two samples were similar in their commitment to their organizations and held similar work values. Both the Saudi and the expatriate managers were generally satisfied with their jobs. However, the expatriate managers expressed somewhat higher levels of satisfaction.

Roberson (1990) conducted a study investigating the relationship of job satisfaction and personal work goals. The Minnesota Satisfaction Questionnaire was administered to 150 employees. In this experimental study, the MSQ's general job satisfaction scale was used as a measure of the dependent variable. Employee's goals were assessed by means of the Work Concerns Inventory. The mean probability of success rating across goals was determined for each subject.

The results of the study indicated that the average perceived probability of goal success and the product of probability multiplied by value were positively related to general job satisfaction. Also, proportions of positive and negative goals were significantly related to job satisfaction.

Roberson also found the best predictor of goal commitment was probability multiplied by value. This, however, was not found to be a good predictor of job satisfaction. The results indicated that enhancing goal commitment and the perceived probability of goal success will increase job satisfaction.

All of the studies reviewed dealt with job satisfaction. Many of them used the Minnesota Satisfaction Questionnaire as their principle means of collecting data. Different aspects of the employee's work environment were examined in these studies. However, none of the presented studies addressed the relationship between job satisfaction and human resource development (HRD) training. The next section of this chapter will provide the reader with information on HRD training as an aspect of the work environment.

HRD Training

The history of human resource development (HRD) has grown through many stages (Heyel, 1982). The need for industrial capacity during World War II was a powerful impetus to the formation of what is known, more recently, as employee training and development or HRD. The HRD field has seen rapid evolution in the past two decades (Heyel, 1982). "Training has arrived and now constitutes one of the most significant personnel management functions" (Hyde & Shafritz, 1983). "Companies struggling to raise quality and lower costs now treat training as a capital expense just like factories" (Peters, 1987, p. 32). Research has shown that learning on the job is an important factor accounting for American economic growth and productivity in this century (Carnevale, Gainer, & Villet, 1990).

Training is "learning that is provided in order to improve performance on the present job" (Gilley & Eggland,

1989, p. 7). Training can occur in several forms. Some of the types of training are: (a) management skills/ development, (b) supervisory skills, (c) technical skills/ knowledge, (d) communication skills and (e) customer relations/services (Gilley & Eggland, 1989).

Budgets for direct training expenses for all U.S. organizations with at least 100 employees totaled $45.5 billion in 1990 (Geber, 1990). "Employers spend $30 billion on formal training and approximately $180 billion on informal on-the-job training each year" (Carnevale et al., 1990, p. 1). Given this huge expense, one key point must be kept in mind: "Are the training dollars more than coming back to the organization in terms of increased profitability?" (Mercer, 1989, p. 220). Human resource managers need to evaluate the financial impact of training.

Donald Kirkpatrick (1983) depicts four ways to measure training effectiveness. These are: (a) the participants' reactions to the training seminar, (b) whether the participants actually learn what the instructor taught them, (c) if the participants' behavior on the job improved as a result of the training program and (d) whether the training enabled the participants to improve the company's profitability or productivity in a measurable way.

Summary

The review of related literature provided information about job satisfaction, instrumentation, related studies, and HRD training. Varying degrees of job satisfaction

exist. Job satisfaction may vary from complete or global satisfaction to dissatisfaction.

There are many ways job satisfaction can be measured. The most popular technique is the use of rating scales (Locke, 1976). Several job satisfaction instruments using rating scales exist. They are: (a) the Hoppock Job Satisfaction Blank, (b) the Cornell Job Description Index (JDI), (c) the Tear Ballot for Industry, (d) the Brayfield and Rothe's index of job satisfaction, and (e) the Minnesota Satisfaction Questionnaire.

The studies reviewed in the related literature were concerned with varying aspects of job satisfaction. These research studies looked at the relationships of job satisfaction with such factors as: (a) support, (b) cognitive and affective content, (c) plans to remain on current jobs, (d) social relationships, and (e) productivity of goals success.

HRD training has developed through many stages (Heyel, 1982). One of the most important factors affecting economic growth and productivity is HRD training (Carnevale et al., 1990). There are several forms of HRD training. They are: (a) management training, (b) technical training, and (c) communication training (Gilley & Eggland, 1989).

Chapter 3

PROCEDURES

The procedures and methods used in this study are presented in Chapter 3. Methods for the selection of samples are explained. Instrumentation for data collection is exhibited. The design of the study and the methods to be used for data analysis are presented.

The design of the study allowed the researcher to investigate: (a) the effect training has on the job satisfaction of managers, and (b) the effect training has on the job satisfaction of hourly employees.

Sample

The two populations for this study were the managers and the hourly employees at DADC in Terre Haute, Indiana. Two samples from each of these populations were selected.

Managers

All managers were given the opportunity to participate in HRD-directed-delegation training at DADC. Eighteen managers volunteered to participate in this training, which started in 1991. The goal of this delegation training program was to improve the communication skills of the

participants. Burger claims by causal observation that as a result of this training, these eighteen managers were able to communicate better their needs to their co-workers both orally and in writing (J. Burger, personal communication, October, 1991).

One sample from the manager population was composed of these 18 individuals who participated in the delegation training. The untrained manager sample used an intact group of 32 available untrained managers to complete the MSQ. These managers had never participated in delegation training at DADC.

Hourly Employees

All operators in the DADC packaging department were required to participate in HRD-communication-skills training at DADC. Approximately 100 operators, from all four shifts, were included in this training program, which began in the summer of 1991. The packaging department was the first department at DADC to participate in this HRD communication-skills training.

The goal of this training was to improve the communication skills of the participants. As a result of this training it was hoped that the operators would be able to communicate better their needs to their co-workers concerning technical components and operation of complex procedures involving specific equipment (J. Burger, personal communication, October, 1991).

One sample from the hourly-employee population was composed of 50 individuals who had received this communication-skills training. The sample was selected from the list of 100 equipment operators in the packaging department at DADC. A sample of 50 individuals who had not received HRD communication-skills training at DADC was selected from a list of approximately 100 equipment operators from other departments throughout the plant.

One way of choosing a random sample is by the use of a table of random numbers. Consecutive numbers are assigned to each member of the population from which the sample is to be selected. Entering the table at any page, row, or column, the sample can be selected from 0 to 99 using two digits. "When a duplicated number or a number larger than a population size is encountered, it is skipped and the process continues until the desired sample size is selected" (Best, 1977, p. 269).

The individuals in the trained hourly employee sample were chosen from the population at DADC by using a table of random numbers (Davies & Goldsmith, 1972) and the procedure described in the above paragraph. A different table of random numbers (Freedman, Pisani, & Purves, 1978) and the same procedure were used in the selection of the untrained manager sample.

Instrumentation

The Minnesota Satisfaction Questionnaire (MSQ) was developed by the Minnesota Studies in Vocational

Rehabilitation. It was developed to measure an employee's perceptions of satisfaction with intrinsic and extrinsic reinforcers in the work environment. Each of the 100 items comprising the MSQ measures a specific reinforcer.

For each item, the respondents indicated how satisfied they were on their present job with that specific reinforcer. Five response alternatives were provided for each item: "Very Dissatisfied; Dissatisfied; Neither; Satisfied; Very Satisfied" (Weiss, Dawis, England, & Lofquist, 1967).

Subscales

The 100 items of the MSQ were grouped into twenty subscales, each consisting of five nonconsecutive items. The following is a list of the MSQ subscales:

1. "Ability utilization" (AU) refers to the chance to do something that makes use of the employees' abilities.

2. "Achievement" (Ach) refers to the feeling of accomplishment the employees get from the job.

3. "Activity" (Act) refers to being able to keep busy all of the time.

4. "Advancement" (Adv) refers to the chances for advancement on the job.

5. "Authority" (Aut) refers to the chance to tell other people what to do.

6. "Company policies and practices" (CPP) refers to the way company policies are put into practice.

7. "Compensation" (Com) refers to the employees' pay and the amount of work they do.

8. "Co-workers" (CW) refers to the way the employees' co-workers get along with each other.

9. "Creativity" (Cre) refers to the chance for the employees to try their own methods of doing the job.

10. "Independence" (Ind) refers to the chance to work alone on the job.

11. "Moral values" (MV) refers to being able to do things that do not go against the employees' consciences.

12. "Recognition" (Rec) refers to the praise the employees get for doing a good job.

13. "Responsibility" (Res) refers to the freedom of the employees to use their own judgement.

14. "Security" (Sec) refers to the way the employees' jobs provide for steady employment.

15. "Social service" (SSe) refers to the chance to do things for other people.

16. "Social status" (SSt) refers to the chance to be "somebody" in the community.

17. "Supervision/human relations" (SHR) refers to the way the employees' boss handles the employees.

18. "Supervision/technical" (ST) refers to the competence of the employees' supervisor in making decisions.

19. "Variety" (Var) refers to the chance to do different things from time to time.

20. "Working conditions" (WC) refers to the working conditions (Weiss et al., 1967).

Scales

The 20 subscales of the MSQ were grouped into three scales. These scales were: (1) intrinsic job satisfaction, (2) extrinsic job satisfaction, and (3) general job satisfaction.

The scale of intrinsic job satisfaction was composed of the following subscales: (a) ability utilization, (b) achievement, (c) activity, (d) authority, (e) creativity, (f) independence, (g) moral values, (h) responsibility, (i) security, (j) social service, (k) social status, and (l) variety.

The scale of extrinsic job satisfaction was composed of the following subscales: (a) advancement, (b) company policies and practices, (c) compensation, (d) recognition, (e) supervision/human relations, and (f) supervision/technical.

The scale of general job satisfaction was an encompassing scale. All the subscales comprising the scales of intrinsic and extrinsic job satisfaction were included in the general job satisfaction scale. In addition, the following subscales were included in the general job satisfaction scale: (a) co-workers, and (b) working conditions (R. Dawis, personal communication, September 10, 1991).

Validity

The validity of the MSQ was derived from its performance according to theoretical expectations. This type of validity is known as construct validity. "Much of the evidence supporting construct validity for the MSQ is derived indirectly from construct validation studies of the Minnesota Importance Questionnaire (MIQ) based on the Theory of Work Adjustment" (Weiss et al., 1967, p. 16).

In a set of studies investigating the relationship between vocational needs and estimated levels of occupational reinforcement, the separate subscales of the MSQ were used as the dependent variables. Analyses of the data from these studies yielded good evidence of construct validity for the following subscales: (a) ability utilization, (b) advancement, and (c) variety. Some construct validity was evident for these additional subscales: (a) authority, (b) achievement, (c) creativity, and (d) responsibility (Weiss et al., 1967).

Reliability

Reliability of the MSQ was estimated by the Hoyt's analysis-of-variance method. The Hoyt reliability coefficients for the MSQ scales range from a high of .97 to a low of .59. Of the 567 Hoyt reliability coefficients, 83% were .80 or higher and only 2.5% were lower than .70. These suggest that, in general, the MSQ scales have adequate internal consistency reliabilities (Weiss et. al., 1967).

Hypotheses

The null hypotheses for the study were:

1. No significant difference exists in the intrinsic job satisfaction as measured by the MSQ of DADC managers who have participated in a DADC-directed-HRD training program and DADC managers who have not participated in a DADC-directed-HRD training program.

2. No significant difference exists in the extrinsic job satisfaction as measured by the MSQ of DADC managers who have participated in a DADC-directed-HRD training program and DADC managers who have not participated in a DADC-directed-HRD training program.

3. No significant difference exists in the general job satisfaction as measured by the MSQ of DADC managers who have participated in a DADC-directed-HRD training program and DADC managers who have not participated in a DADC-directed-HRD training program.

4. No significant difference exists in the intrinsic job satisfaction as measured by the MSQ of DADC hourly employees who have participated in a DADC-directed-HRD training program and DADC hourly employees who have not participated in a DADC-directed-HRD training program.

5. No significant difference exists in the extrinsic job satisfaction as measured by the MSQ of DADC hourly employees who have participated in a DADC-directed-HRD training program and DADC hourly employees who have not participated in a DADC-directed-HRD training program.

6. No significant difference exists in the general job satisfaction as measured by the MSQ of DADC hourly employees who have participated in a DADC-directed-HRD training program and DADC hourly employees who have not participated in a DADC-directed-HRD training program.

Design

This descriptive study had a post-hoc, causal-comparative, posttest design. A schematic representation of the design is diagramed below.

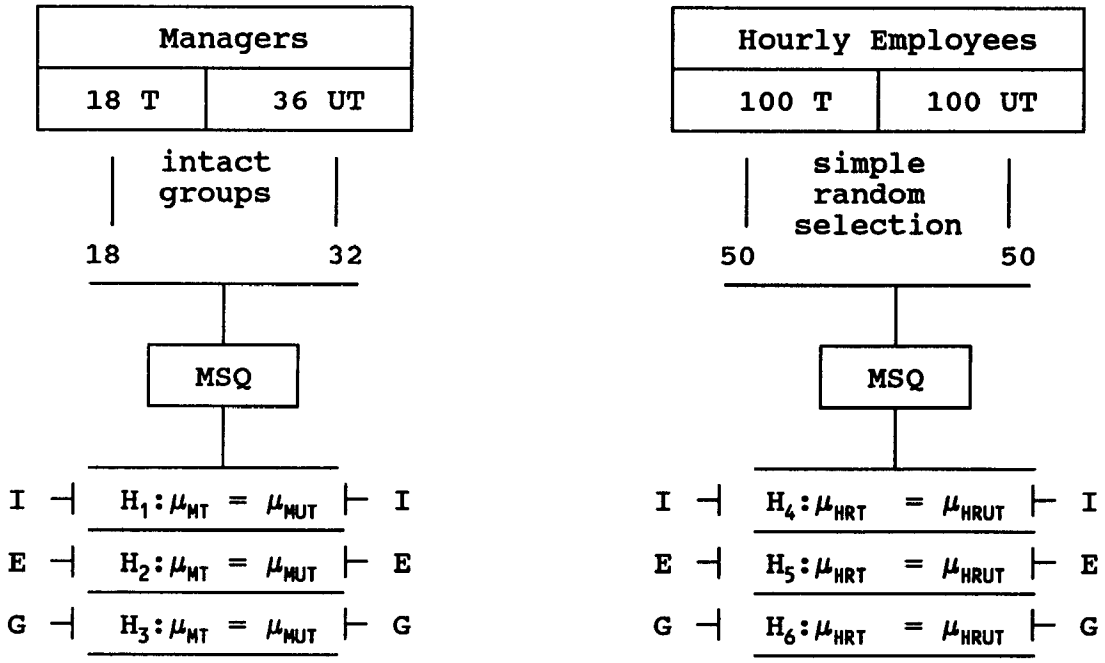

Figure 1. Design of the Study.
The design of the study includes the (a) method for choosing samples, (b) sizes of the samples, (c) instrumentation, and (d) methods of data analysis. Legend: T-trained, UT-untrained, MSQ-Minnesota Satisfaction Questionnaire, MT-trained managers, MUT-untrained managers, HRT-trained hourly employees, HRUT-untrained hourly employees, I-intrinsic job satisfaction scale, E-extrinsic job satisfaction scale, and G-general job satisfaction scale.

This descriptive study " describes and interprets what is. It is concerned with conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evident, or trends that are developing" (Best, 1977, p. 116).

Data Collection

All questionnaires were marked with a colored horizontal bar in the upper left hand corner of the first page. Blue indicated questionnaires to be completed by trained managers. Green denoted questionnaires to be completed by untrained managers. Red and black identified questionnaires for trained and untrained hourly employees, respectively. These questionnaires were placed in similarly color-coded envelopes to facilitate the accurate distribution of the questionnaires to the individuals in the sample groups.

A cover letter (Appendix A) was attached to the front of each envelope explaining the purpose of the study and the procedures to be followed. Inside the envelope was a return envelope and an optional request form (Appendix B) to be completed by those respondents desiring to receive the results of the study.

The MSQ is a standard questionnaire with an entry space at the beginning for the respondents to provide their names. In order to ensure the anonymity of the subjects, this entry space was marked out with a solid line so the respondents' names did not appear on the questionnaires. The respondents

were asked to complete the remainder of the confidential section of the questionnaire. However, none of the information requested in this section was of the nature that individuals could be identified from their responses.

Respondents personally placed their questionnaires in boxes located throughout the plant to further protect their identities. The request forms could also be confidentially placed in separate boxes.

The researcher, with the help of supervisors, distributed the envelopes on December 19, 1991 to the individuals in each sample group at their work stations. At this time, the questions and concerns of the members of the sample groups were answered by the researcher.

Participation in this study was voluntary. Any members of the sample groups not wishing to complete the questionnaire were allowed to decline to participate at the time of contact.

Questionnaires were collected from the return boxes by the researcher. A follow-up letter was sent to all individuals in the sample groups on December 19, 1991.

The amount of personal follow-up depended on the number of responses received after the follow-up letter. The researcher contacted members of the sample groups, at random, to encourage the completion and return of questionnaires not received. The researcher received 10 out of 18 trained-managers questionnaires for a return rate of 55%. The researcher received 17 out of 32 untrained-

managers questionnaires for a return rate of 53%. Of the 50 trained hourly employees, 37 returned the questionnaire to the researcher for a return rate of 74%. Of the 50 untrained hourly employees, 34 returned the questionnaire to the researcher for a return rate of 68%.

Data Analysis

Analytical statistics were used to analyze the data for managers and hourly employees. The statistics were reported as group information.

In analyzing the data, comparisons were made for managers exposed to HRD delegation training and managers not exposed to HRD delegation training. Means and standard deviations were reported for these two samples. Raw scores were computed by the Vocational Psychology Department at the University of Minnesota for each individual in the two samples. Raw scores were computed for intrinsic job satisfaction, extrinsic job satisfaction, and general job satisfaction. A two-tailed t-test was used for each of the three scales to determine if a significant difference existed between the perceptions of the "trained" and the "untrained" managers.

In addition, a comparison was made for hourly employees exposed to the HRD communication-skills training and hourly employees not exposed to this training. Means and standard deviations were also reported for these samples. T-tests were used to determine if significant differences existed between these two samples. The data were analyzed for the

scales of intrinsic job satisfaction, extrinsic job satisfaction, and general job satisfaction.

The scoring of the MSQ was done by the Vocational Psychology Department at the University of Minnesota. The null hypotheses were tested at the .05 level of significance.

Summary

The proposed question for this study was whether there are significant differences in the perceptions of job satisfaction resulting from human resource development training of managers and hourly employees. A descriptive study using a post-hoc, causal-comparative, posttest design was used to answer this question.

"Trained" managers were compared to "untrained" managers. Raw scores from these two samples were analyzed and compared for the three scales of job satisfaction. T-tests were used to analyze the difference between these two samples. A .05 level of significance for a two-tailed test was used to test the hypotheses.

Secondly, "trained" hourly employees were compared to "untrained" hourly employees. Raw scores from these two samples were analyzed and compared in the same manner as the manager samples. Two-tailed t-tests were used to analyze these data at a .05 level of significance to test the hypotheses.

Chapter 4

ANALYSIS OF DATA

The study focused on two different problems in training. One problem was to determine if there were differences in perceptions of job satisfaction of managers who received HRD training as compared to managers who did not receive HRD training. A second problem of this study was to determine if there were differences in perceptions of job satisfaction of hourly employees who received HRD training as compared to hourly employees who did not receive HRD training.

The results of the statistical analyses of the data as they pertain to the six null hypotheses investigated in this study are presented in chapter 4. Included are the null hypotheses tested, explanation of the inferential statistics used, summaries of these findings in relation to the null hypotheses, bar graphs depicting group means of the data, and a summary of the findings.

Description of the Findings

Eighteen trained managers and 32 untrained managers at DADC were requested to respond to the Minnesota Satisfaction Questionnaire in December 1991. At the same time, 50

trained hourly employees and 50 untrained hourly employees at DADC were asked to complete the same questionnaire. The numbers of completed questionnaires returned were 10, 17, 37, and 34, respectively. The questionnaire is composed of three scales from which the six null hypotheses for this study were derived. The six null hypotheses are restated in the following sections along with the results of the t-tests that were completed. The group means of the trained and untrained managers for the scale where a significant difference exists are graphed in the following section. A summation of the scale scores by individual can be found in Appendix C. Subscale score statistics can be found in Appendix D.

Managers' Intrinsic Job Satisfaction

Null Hypothesis 1: No significant difference exists in intrinsic job satisfaction as measured by the MSQ of DADC managers who have participated in a DADC-directed-HRD training program and DADC managers who have not participated in a DADC-directed-HRD training program.

A significant difference was found between the intrinsic job satisfaction of the trained and the untrained managers and is presented in Table 1 (p. 39). The null hypothesis is rejected at the .05 level of significance. This means there is a significant difference in the perceptions of intrinsic job satisfaction between managers who have participated in a DADC-directed-HRD training

program and DADC managers who have not participated in a DADC-directed-HRD training program.

Table 1. Managers' Intrinsic Job Satisfaction. Results of a two-tailed t-test on raw scores for perceived intrinsic job satisfaction.

Group	n	M	SD	df	t	$t_{(.05,25)}$
Trained	10	221.10	31.235	25	2.217*	2.060
Untrained	17	246.00	26.311			

*p < .05

Managers' Extrinsic Job Satisfaction

Null Hypothesis 2: No significant difference exists in the extrinsic job satisfaction as measured by the MSQ of DADC managers who have participated in a DADC-directed-HRD training program and DADC managers who have not participated in a DADC-directed-HRD training program.

The data resulting from the statistical analysis indicated there is no significant difference between the trained managers and the untrained managers regarding extrinsic job satisfaction as shown in Table 2 (p. 40). The null hypothesis is accepted at the .05 level of significance. There is no significant difference in the perceptions of extrinsic job satisfaction of managers who participated in a DADC-directed-HRD training program and the perceptions of extrinsic job satisfaction of managers who

had not participated in a DADC-directed-HRD training program.

Table 2. Managers' Extrinsic Job Satisfaction. Results of a two-tailed t-test on raw scores for perceived extrinsic job satisfaction.

Group	n	M	SD	df	t	$t_{(.05,25)}$
Trained	10	96.20	27.071	25	1.496	2.060
Untrained	17	100.59	22.322			

Managers' General Job Satisfaction

Null Hypothesis 3: No significant difference exists in the general job satisfaction as measured by the MSQ of DADC managers who have participated in a DADC-directed-HRD training program and DADC managers who have not participated in a DADC-directed-HRD training program.

In Table 3 (p. 40) can be found the results of the statistical analysis on the participants' responses to the general job satisfaction items. These data indicate no significant difference exists between the trained managers' perceived general job satisfaction and the untrained managers' perceived general job satisfaction as measured by the Minnesota Satisfaction Questionnaire. The null hypothesis is accepted at the .05 level of significance. There is no significant difference in the perceptions of general job satisfaction of managers who had participated in

a DADC-directed-HRD training program and the perceptions of general job satisfaction of managers who had not participated in a DADC-directed-HRD training program.

Table 3. Managers' General Job Satisfaction.
Results of a two-tailed t-test on raw scores for perceived general job satisfaction.

Group	n	M	SD	df	t	$t_{(.05,25)}$
Trained	10	71.20	11.952	25	1.824	2.060
Untrained	17	78.94	9.839			

Mean Scores for Managers' Intrinsic Job Satisfaction

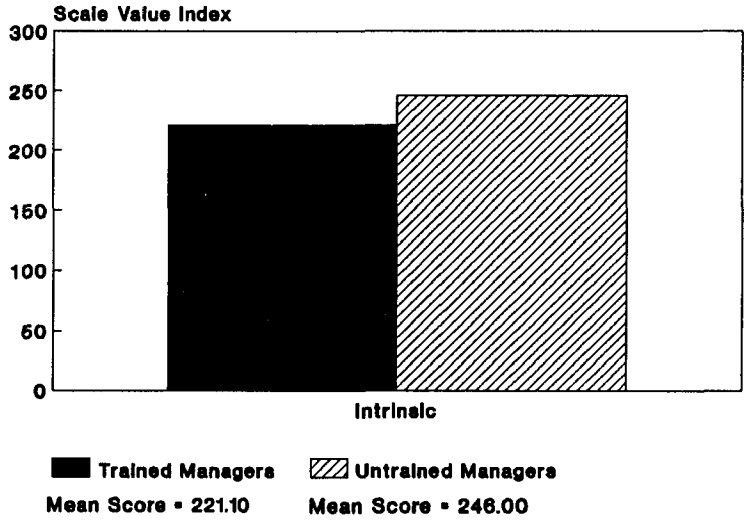

Figure 2. Managers' Intrinsic Job Satisfaction.
The group means of trained and untrained managers where a significant difference in the perceptions exists.

There is a significant difference between the perceptions of intrinsic job satisfaction for trained and

untrained managers at DADC. The mean scores for this job satisfaction scale are graphed in Figure 2.

Hourly Employees' Intrinsic Job Satisfaction

Null Hypothesis 4: No significant difference exists in the intrinsic job satisfaction as measured by the MSQ of DADC hourly employees who have participated in a DADC-directed-HRD training program and DADC hourly employees who have not participated in a DADC-directed-HRD training program.

No significant difference exists between trained hourly employees' perceived intrinsic job satisfaction and untrained hourly employees' perceived intrinsic job satisfaction (see Table 4). The null hypothesis is accepted at the .05 level of significance. The perceived intrinsic job satisfaction of hourly employees who had participated in a DADC-directed-HRD training program is not significantly different from the perceived intrinsic job satisfaction of hourly employees who had not participated in a DADC-directed-HRD training program.

Table 4. Hourly Employees' Intrinsic Job Satisfaction. Results of a t-test on raw scores for perceived intrinsic job satisfaction.

Group	n	M	SD	df	t	$t_{(.05,69)}$
Trained	37	217.97	32.104	69	0.542	2.000
Untrained	34	222.03	30.787			

Hourly Employees' Extrinsic Job Satisfaction

Null Hypothesis 5: No significant difference exists in the extrinsic job satisfaction as measured by the MSQ of DADC hourly employees who have participated in a DADC-directed-HRD training program and DADC hourly employees who have not participated in a DADC-directed-HRD training program.

No significant difference exists in perceptions of intrinsic job satisfaction between trained hourly employees and untrained hourly employees as indicated in Table 5. The null hypothesis is accepted at the .05 level of significance. This means the perceived extrinsic job satisfaction of DADC hourly employees who had participated in a DADC-directed-HRD training program is not significantly different from the perceived extrinsic job satisfaction of DADC hourly employees who had not participated in a DADC-directed-HRD training program.

Table 5. Hourly Employees' Extrinsic Job Satisfaction. Results of a t-test on raw scores for perceived extrinsic job satisfaction.

Group	n	M	SD	df	t	$t_{(.05,69)}$
Trained	37	96.00	24.680	69	0.005	2.000
Untrained	34	95.97	25.632			

Hourly Employees' General Job Satisfaction

Null Hypothesis 6: No significant difference exists in the general job satisfaction as measured by the MSQ of DADC hourly employees who have participated in a DADC-directed-HRD training program and DADC hourly employees who have not participated in a DADC-directed-HRD training program.

No significant difference exists between trained hourly employees and untrained hourly employees as indicated in Table 6. The null hypothesis is accepted at the .05 level of significance. No significant difference exists between the perceived general job satisfaction of DADC hourly employees who had participated in a DADC-directed-HRD training program and DADC hourly employees who had not participated in a DADC-directed-HRD training program.

Table 6. Hourly Employees' General Job Satisfaction. Results of a t-test on raw scores for perceived general job satisfaction.

Group	n	M	SD	df	t	$t_{(.05,69)}$
Trained	37	70.84	11.817	69	0.350	2.000
Untrained	34	71.82	11.872			

Summary of Findings

Data analyzed in this study were derived from the Minnesota Satisfaction Questionnaire, which was administered to 50 managers and 100 hourly employees at DADC. Data

scoring and analysis was conducted by the University of Minnesota Vocational Psychology Department services. In the first portion of the study, statistical analyses of the differences in the perceptions of job satisfaction between managers who had participated in a DADC-directed-HRD training program and managers who had not participated in a DADC-directed-HRD training program were conducted by using the t-test method.

In the second portion of the study, statistical analyses of the differences in the perceptions of job satisfaction between hourly employees who had participated in a DADC-directed-HRD training program and hourly employees who had not participated in a DADC-directed-HRD training program were conducted by using t-tests. Perceptions of job satisfaction for both portions of this study were evaluated for three scales: intrinsic, extrinsic, and general.

Analysis of the results of the t-test for a significant difference in the perceptions of intrinsic job satisfaction between trained managers and untrained managers indicated that the null hypothesis should be rejected at the .05 level of significance. No significant differences were found in the perceptions of extrinsic and general job satisfaction between trained and untrained managers. These null hypotheses were accepted at the .05 level of significance.

Analyses of the results of the t-tests for significant differences in the perceptions of intrinsic, extrinsic, and general job satisfaction between trained hourly employees

and untrained hourly employees indicated the null hypothesis should be accepted at the .05 level of significance. No significant differences were found in the perceptions of intrinsic, extrinsic, and general job satisfaction between trained hourly employees and untrained hourly employees.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A statement of the problem, a review of related literature, the procedures, and the analysis of data were presented in chapters 1 through 4. The purpose of this chapter is to provide a summary of the present research, related conclusions, and offer recommendations for further study.

Summary

Competitiveness in the world marketplace is causing businesses to look for new and innovative means to achieve success. This has resulted in an emphasis on investment in employee development. One way of investing in employee development is by designing and implementing a Human Resource Development program. Several companies throughout the world have implemented HRD programs. One of the major components of an HRD program is training.

The Digital Audio Disc Corporation (DADC) of Terre Haute, Indiana, part of Sony, is a manufacturing company which has introduced and used an HRD training program. One of the goals of this or any other HRD program is to improve employee job satisfaction. However, little if any

research has been done to determine if an HRD program does have an effect on employee job satisfaction.

The purpose of this study was to determine if there are differences in perceptions of job satisfaction of managers who received HRD training as compared to managers who did not receive HRD training. A second portion of this problem was to determine if there are differences in the perceptions of job satisfaction of hourly employees who received HRD training as compared to hourly employees who did not receive HRD training. Specifically, the study addressed intrinsic, extrinsic, and general dimensions of job satisfaction.

Ten trained managers, 17 untrained managers, 37 trained hourly employees, and 34 untrained hourly employees at DADC completed the Minnesota Satisfaction Questionnaire in December 1991. Raw scores were obtained for the scales of intrinsic, extrinsic, and general satisfaction. The null hypotheses of the study corresponded to these job satisfaction scales for trained and untrained managers and hourly employees.

A two-tailed t-test at the .05 level of significance was used to analyze the raw scores of the respondents to determine if there were significant differences in the perceptions of job satisfaction of trained and untrained managers and trained and untrained hourly employees.

The results of the statistical analysis showed that there was a significant difference in the perceptions of intrinsic job satisfaction of managers who participated in

HRD training at DADC as compared to managers who did not participate in HRD training at DADC. That null hypothesis was rejected at the .05 level of significance.

It was determined that there were no significant differences in extrinsic and general job satisfaction for trained and untrained managers. The null hypotheses for those two job satisfaction scales for managers were accepted at the .05 level of significance.

In the second portion of the study, no significant differences were found in the perceptions of job satisfaction for hourly employees who participated in HRD training at DADC and hourly employees who did not participate in HRD training at DADC. No significant differences were found for the three scales of job satisfaction; intrinsic, extrinsic, and general. All null hypotheses pertaining to the hourly employees were accepted at the .05 level of significance.

Conclusions

In the first portion of this study, the findings lead to the conclusion that there is a negative relationship in mean scores comparing managers participating in HRD training to managers who did not participate in HRD training as they perceived intrinsic, and general job satisfaction. The managers' training program, delegation training, resulted in a significant difference between the intrinsic job satisfaction of the trained managers and the intrinsic job satisfaction of the untrained managers.

The researcher found the assumption that the two manager samples used in this study were similar in nature with the exception of the HRD delegation training factor may have been wrong. The samples of managers may have had built-in differences by virtue of the fact that the group which received training volunteered.

In the second portion of this study, the findings lead to the conclusion that there is a negative relationship in mean scores between hourly employees participating in a DADC-directed-HRD training program as compared to hourly employees who did not participate in HRD training as they perceived intrinsic and general job satisfaction. However, the DADC hourly employees who had participated in a DADC-directed-HRD training program had a slightly more favorable perception of their extrinsic job satisfaction as compared to the DADC hourly employees who had not participated in a DADC-directed-HRD training program. The hourly employees' training program, communication skills training, did not result in a significant difference between the perceptions of the trained hourly employees and the perceptions of the untrained hourly employees for any of the job satisfaction scales used in this study.

The researcher found the assumption that the two hourly employee samples were similar in nature with the exception of the HRD communication-skills training factor may have been wrong. The samples of hourly employees may have had

built-in differences by virtue of the fact that the groups were selected from different departments at DADC.

Discussion of Results

The results of the study indicate that trained managers, on the average, have a lower perception of their intrinsic, extrinsic, and general job satisfaction than the untrained managers at DADC. The researcher conjectures that one explanation is that the DADC trained managers in this study had volunteered for the delegation training. These managers may, therefore, have had initially had higher expectations and a higher degree of concern for their working environment than the managers who did not volunteer. These higher expectations and degree of concern might have resulted in the trained managers being astute in evaluating important components of a pleasant work environment. Thus, the trained managers may have been more critical of their total work environment than the untrained managers.

These higher expectations and degree of concern of the managers who had volunteered for training may have also had an unusually significant effect on their perceived intrinsic job satisfaction. The trained managers' lower perceived intrinsic job satisfaction may indicate that these managers are more ambitious, goal oriented, and aware of the opportunities and rewards which are available at the management level than the untrained managers at DADC.

The trained managers may, therefore, have higher expectations of the intrinsic job satisfaction reinforcement

factors. This might result in the trained mangers being much more critical of their opportunities to achieve and succeed in the portion of their jobs associated with the intrinsic job reinforcement factors.

Additionally, the researcher conjectures another explanation for the significantly lower intrinsic job satisfaction of the trained managers is the type of training in which they participated. Delegation training is designed to improve the managers' communication skills in order for the managers to be able to effectively communicate their needs to the hourly employees under their supervision. Delegation training also instructs the managers in the techniques necessary to successfully delegate authority.

In order to achieve the goals of delegation training, the mangers are encouraged to change their written and verbal communication behaviors as well as facilitate change in the hourly employees' behaviors. The changing of behaviors is a long term process and involves concentrated effort by the participants (Locke, 1976). Also, other managers and hourly employees may not understand the process of delegation training and therefore not be interested in improving their communication skills. These factors could result in various degrees of stress for the managers involved in this process of change. Their frustration with the complexity and difficulty of this process could have resulted in their perceptions of their intrinsic job satisfaction being negatively affected.

The trained managers may also feel frustration because they perceive nothing concrete has resulted from their delegation training. They may not have realized that there are benefits as a result of participating in delegation training. This may have adversely affected the trained managers perceptions of their intrinsic job satisfaction.

Communication skills training at DADC seemed to have little effect on the intrinsic, extrinsic, or general job satisfaction of the hourly employees at DADC. The untrained hourly employees at DADC seemed to have a little higher level of intrinsic job satisfaction than the trained managers. One explanation for this fact is that communication skills training is geared to organizational development rather than individual development.

The goal of communication skills training is to teach the participants the skills necessary to communicate any problems arising on the job to their supervisors in clear and concise technical terms. This process can sometimes seem arduous and boring for the hourly employees. It is difficult for them to see any immediate personal benefits. This type of training is not geared to improving factors on the job associated with the hourly employees' intrinsic job satisfaction.

The extrinsic job satisfaction of the trained and untrained hourly employees was almost identical. An explanation for this fact is that both sample groups worked in the same department at DADC. Their physical work

environments are very similar. The communication skills training did not have any direct effect on the physical work environment of the trained hourly employees. Therefore, no significant difference was evident in the extrinsic job satisfaction of the trained and untrained hourly employees.

Overall, training did not seem to have a significant effect on the job satisfaction of the managers and hourly employees, with the exception of the intrinsic job satisfaction of the managers. One explanation for the apparent lack of effect of training on job satisfaction is that training is relatively new at DADC. All of the trained managers and trained hourly employees had only participated in one type of DADC-directed-HRD training program. Time had not permitted the HRD department at DADC to repeat these training programs or offer additional training programs.

Training is a long term process. Time is needed for the effects of training to be apparent, and repeated training is necessary to have a significant effect on the participants' job satisfaction. Like any process involving change, training programs need adequate time, relentless patience, and total dedication in order to work effectively. Only by studying the effects of repeated Human Resource Development training over a long period of time can the effects of such training on managers' and hourly employees' intrinsic job satisfaction, extrinsic job satisfaction, and general job satisfaction truly be known.

Recommendations

As a result of the study, the following recommendations are made for future research:

1. A replication of this study could be conducted at DADC for subsequent years to determine if differences in intrinsic job satisfaction of trained and untrained managers remain significant.

2. Research could be conducted to determine the sources of disparity between job satisfaction of trained and untrained hourly employees and managers at DADC and how each group perceives the role of HRD at the company.

3. A replication of this study could be conducted at several companies simultaneously to compare the effects of different HRD training programs on employee job satisfaction.

4. A longitudinal study could be conducted at DADC to determine the effects HRD training has on employees' evolving job satisfaction.

5. Research could be conducted at DADC of different types of HRD training and the effects they have on employee job satisfaction.

6. Research could be conducted at DADC to determine the effects different components of the HRD program have on job satisfaction.

7. Research could be conducted to examine how different age groups of trained and untrained employees

perceive their job satisfaction in order to determine the factors that motivate them.

8. Research could be conducted to determine the effects job satisfaction resulting from HRD training has on cost-benefits to a company.

9. Research could be conducted to determine the effects on employee job satisfaction of mandatory HRD training programs as compared to the volunteer HRD training programs.

10. Research could be conducted to determine what extrinsic reward systems will best suit the needs of employees and will link HRD training of the employees to intrinsic, extrinsic, and general job satisfaction at DADC.

11. Research could be conducted to examine the extent to which skills, attitudes, and behaviors that are present in job satisfaction resulting from HRD training are being spread to all activities and relationships in the DADC plant.

As a result of the study, the following recommendations are made specifically for Digital Audio Disc Corporation (DADC):

1. DADC should do the following if they are sincere in meeting employee expectations and are committed to HRD training:

a. Design a training program which includes procedures for evaluative data collection to determine if

HRD training makes a difference in employees' intrinsic, extrinsic, and general job satisfaction.

b. Try different kinds of HRD training.

c. Establish a variety of HRD benefits, such as recognition and reward systems, for their employees participating in DADC-directed-HRD training programs, to cultivate the employees' job satisfaction.

2. In future studies, there should be an intentional design by DADC using their training program. Managers volunteering for training should be divided into two groups; one group should participate in a DADC-directed-HRD training program and the other group should not participate in a DADC-directed-HRD training program. Managers not volunteering for training should be divided into two groups; one should participate in a DADC-directed-HRD training program and the other group should not participate in a DADC-directed-HRD training program. The MSQ should be administered to both the trained and untrained groups after the training programs are completed.

This new design will allow DADC to plan and conduct a follow-up study to obtain results that will help DADC design and implement an HRD training program that will increase the level of job satisfaction of its employees.

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APPENDIXES

APPENDIX A

Cover Letter

December 12, 1991

Dear DADC Employee:

I need your help with a study I am doing about training and job satisfaction. Like many of you, I have participated in DADC training and I feel that it may affect how happy you are with your job. It would help me if you would complete and return the questionnaire as soon as possible.

Your participation is voluntary and your answers will be kept confidential. Please complete the questionnaire, put it in the return envelope, seal the envelope, and place it in one of the boxes located in the Human Resource Department, the cafeteria, the Packaging Department, and at the plant's main entrance.

If you have any questions, please feel free to call me at (812) 237-2649. My office is located at the School of Technology, Indiana State University. Thank you for your help.

Sincerely,

Dr. Lowell D. Anderson
Professor and Chairperson,
ITE Department

Larry E. Helphinstine
Graduate Student

APPENDIX B

Request Form

Any respondent desiring to receive a summary of the results of this research should complete this form and place it in one of the appropriate boxes located next to the questionnaire return boxes. Completion of this form is optional. This form can not, in any way, be linked to a respondent's questionnaire.

Name: _____

Street: _____

_____

City: _____

State/Zip Code: _____

APPENDIX C

Minnesota Satisfaction Questionnaire Summation of Scale Scores by Individual for Trained Managers

Individuals	Intrinsic	Extrinsic	General
MT01	240	119	80
MT02	205	100	69
MT03	257	126	84
MT04	188	30	48
MT05	218	99	70
MT06	183	91	60
MT07	284	122	90
MT08	204	90	67
MT09	219	89	73
MT10	213	96	71

Minnesota Satisfaction Questionnaire
Summation of Scale Scores by Individual
for Untrained Managers

Individuals	Intrinsic	Extrinsic	General
MUT01	227	111	78
MUT02	243	111	74
MUT03	234	118	80
MUT04	213	91	67
MUT05	267	130	88
MUT06	225	109	74
MUT07	260	122	79
MUT08	250	123	80
MUT09	205	45	58
MUT10	282	123	89
MUT11	289	137	97
MUT12	256	120	82
MUT13	238	107	76
MUT14	266	132	88
MUT15	264	88	80
MUT16	265	124	88
MUT17	198	89	64

Minnesota Satisfaction Questionnaire
Summation Scores by Individual
for Trained Hourly Employees

Individuals	Intrinsic	Extrinsic	General
HRT01	230	111	77
HRT02	229	94	72
HRT03	226	101	72
HRT04	256	143	91
HRT05	192	45	56
HRT06	163	72	57
HRT07	190	93	63
HRT08	202	60	58
HRT09	264	116	87
HRT10	227	97	74
HRT11	198	77	65
HRT12	208	83	64
HRT13	254	121	85
HRT14	235	105	75
HRT15	141	40	42
HRT16	216	80	66
HRT17	225	108	81
HRT18	246	96	76
HRT19	194	76	59
HRT20	235	97	75
HRT21	185	82	61
HRT22	230	100	76
HRT23	264	148	92
HRT24	128	57	44
HRT25	211	96	69
HRT26	250	121	83
HRT27	233	103	76
HRT28	240	120	80
HRT29	189	64	56
HRT30	238	67	67
HRT31	253	115	83
HRT32	235	112	77
HRT33	232	120	79
HRT34	181	107	63
HRT35	195	101	65
HRT36	232	110	76
HRT37	238	114	79

Minnesota Satisfaction Questionnaire
Summation of Scale Scores by Individual
for Untrained Hourly Employees

Individuals	Intrinsic	Extrinsic	General
HRUT01	246	131	87
HRUT02	218	89	72
HRUT03	226	78	70
HRUT04	198	65	60
HRUT05	167	51	50
HRUT06	206	63	60
HRUT07	229	83	72
HRUT08	229	115	77
HRUT09	299	141	94
HRUT10	260	119	84
HRUT11	240	105	80
HRUT12	197	85	63
HRUT13	242	113	81
HRUT14	191	87	67
HRUT15	268	114	86
HRUT16	189	73	59
HRUT17	221	69	65
HRUT18	179	59	55
HRUT19	245	125	87
HRUT20	258	129	86
HRUT21	239	119	79
HRUT22	270	96	80
HRUT23	221	91	68
HRUT24	162	52	44
HRUT25	221	87	71
HRUT26	234	125	81
HRUT27	221	114	76
HRUT28	245	139	86
HRUT29	229	122	79
HRUT30	189	65	57
HRUT31	205	86	66
HRUT32	185	84	63
HRUT33	200	95	68
HRUT34	220	94	69

APPENDIX D

Minnesota Satisfaction Questionnaire Subscale Score Statistics

The following tables contain the statistical data for the individual subscales which comprise the intrinsic, extrinsic and general scales of job satisfaction. Descriptions of these individual subscales can be found on pages 27 and 28.

Subscale Score Statistics for Trained Managers N=10

Subscale	Mean	Standard Deviation	Standard Error of Measurement
AU	15.700	6.019	0.610
Ach	17.600	4.502	1.138
Act	19.900	1.595	0.907
Adv	14.000	6.342	0.977
Aut	20.100	2.961	0.966
CPP	16.700	5.334	1.195
Com	17.800	5.224	1.183
CW	17.600	3.471	1.197
Cre	17.700	4.498	1.160
Ind	17.700	3.743	1.229
MV	19.300	4.644	1.171
Rec	14.200	5.453	0.387
Res	19.700	3.093	1.558
Sec	18.600	3.406	1.319
SSe	19.200	2.974	1.085
SSt	17.800	3.706	1.135
SHR	16.800	5.051	1.549
ST	16.700	5.122	1.135
Var	17.800	4.022	1.306
WC	21.100	1.853	0.679
Gen	71.200	11.952	3.546

Subscale Score Statistics
for Untrained Managers
N=17

Subscale	Mean	Standard Deviation	Standard Error of Measurement
AU	20.824	2.651	1.084
Ach	20.926	2.549	1.133
Act	21.059	3.288	0.982
Adv	19.471	4.375	0.832
Aut	21.412	2.476	0.969
CPP	17.235	3.882	1.254
Com	20.118	2.870	1.356
CW	19.059	2.883	0.954
Cre	20.529	3.659	1.246
Ind	19.059	3.418	1.501
MV	21.799	2.391	1.266
Rec	17.529	4.064	1.088
Res	20.412	2.373	1.437
Sec	18.941	3.944	1.146
SSe	21.235	2.705	1.110
SSt	18.824	3.283	1.138
SHR	17.529	5.513	1.414
ST	18.706	4.579	1.341
Var	20.941	2.045	1.127
WC	21.765	2.513	0.820
Gen	78.926	9.839	2.827

Subscale Score Statistics for
Trained Hourly Employees
N=37

Subscale	Mean	Standard Deviation	Standard Error of Measurement
AU	17.243	4.431	1.146
Ach	18.568	3.812	0.996
Act	19.838	2.920	0.997
Adv	14.243	5.150	0.840
Aut	16.973	2.967	0.978
CPP	13.703	5.147	1.207
Com	20.081	3.411	0.810
CW	18.784	3.637	0.972
Cre	16.649	4.309	1.099
Ind	18.405	3.484	1.025
MV	19.757	3.041	0.994
Rec	16.378	5.575	0.920
Res	17.568	3.571	1.418
Sec	20.811	2.942	1.354
SSe	17.811	2.980	0.890
SSt	16.324	2.839	1.201
SHR	15.892	5.446	1.211
ST	15.703	5.272	1.419
Var	18.027	3.914	1.401
WC	19.534	2.863	1.070
Gen	70.838	11.817	3.181

Subscale Score Statistics for
Untrained Hourly Employees
N=34

Subscale	Mean	Standard Deviation	Standard Error of Measurement
AU	17.235	4.250	1.064
Ach	18.853	3.377	1.372
Act	20.353	2.901	1.029
Adv	14.088	5.334	1.182
Aut	16.654	2.660	1.240
CPP	13.735	6.712	1.173
Com	20.265	4.521	1.245
CW	18.794	3.549	1.378
Cre	16.147	3.932	1.435
Ind	20.294	2.932	0.882
MV	20.235	2.850	1.177
Rec	14.735	5.166	1.078
Res	18.647	3.024	1.381
Sec	20.529	3.332	1.364
SSe	18.882	2.982	1.063
SSt	16.206	3.780	1.533
SHR	16.500	6.350	1.303
ST	16.647	4.861	1.485
Var	18.000	4.369	1.302
WC	19.588	4.076	1.154
Gen	71.831	11.864	3.573