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A Study of the Satisfaction and Motivation of High School Coaches

James Edward Riordan
Loyola University Chicago

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A STUDY OF THE SATISFACTION AND MOTIVATION OF HIGH SCHOOL COACHES

by

James Edward Riordan

A Dissertation Submitted to the Faculty of the School of Education
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Education

January

1989

A B S T R A C T

The general purpose of this study was to determine if the satisfying and motivating factors of high school coaches could be significantly related to the Frederick Herzberg Motivational-Hygiene theory. In addition, attempts to determine whether satisfying and motivating experiences of high school coaches are similar to the lack of continua in the Herzberg Motivation-Hygiene theory; to determine whether least satisfying and unmotivating experiences of high school coaches are similar to the lack of continua in the Herzberg-Motivation-Hygiene theory; to determine the affect of positive and motivating and negative and hygienic experiences on high school coaches' attitudes toward the profession; and, to determine the dependence of these same positive and motivating and negative and hygienic experiences with the coaches' tenure, years of experience, formal evaluation of performance, won-loss percentage, and salary for coaching.

The sample included 168 coaches from the South Inter-Conference Association, a 33 school athletic and activity conference in Northeast Illinois. Of the 168 coaches surveyed, 124 responded. A three-part questionnaire was developed. John Flanagan's critical incident technique was used in the first and second parts of the questionnaire. Coaches were asked about their most satisfying and least satisfying coaching experiences. The third part of the questionnaire asked for demographic information. Using the Frederick Herzberg Motivation-Hygiene theory, the responses of the coaches were categorized. The 19

research questions that were developed were analyzed, using the chi square statistic to assess the significance of the relationship between the data.

Partial support for the Herzberg Motivation-Hygiene theory was found in this study. For positive coaching experience two motivational factors, recognition and achievement accounted for over ninety percent of the descriptions of coaches. Furthermore, ninety-five percent of the incidents were associated with the two cited factors and a third motivational factor, work itself. So, it can be concluded that for positive coaching experience being associated with motivational factors, this study is concordant with the Herzberg hypothesis.

However, when analyzing the responses of coaches regarding the negative experiences, the two factor model was not supported. The motivational factors of recognition and achievement accounted for over seventy percent of the responses. When including other motivational factors, i.e., responsibility and work itself, the responses to negative coaching experiences accounted for nearly three quarters of all responses. Thus, the remaining one quarter of the incidents had hygiene themes. Interpersonal relationships and personal life accounted for approximately eight percent and policy accounted for sixteen percent. Since the hygienes accounted for only one quarter of the responses in the negative coaching experiences, it can be concluded that the Herzberg Two-Factor model was not supported. No statistical significance was found between the Herzberg theory and the demographic information.

The findings indicate that high school coaches view achievement and recognition as the primary forces which are most important to their career regardless of the positive or negative nature of their experiences.

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Thanks and appreciation are extended to those who have supported me through this extensive and intensive period in my life. The completion of a doctoral program requires the understanding of fellow workers, friends, and family.

The staff of Loyola University provided the guidance and encouragement necessary to complete all tasks assigned. Of particular note was Dr. Robert Monks, a former professor, who first introduced me to the value of the Loyola doctoral program; Dr. Mel Heller who challenged me, as he does all his students, to do their absolute best; Dr. Max Bailey for his practical vision and common sense approach to the field of educational administration; Dr. Edward Rancic for devoting time from his many responsibilities as a practicing Superintendent to be a reader on my committee; and in particular, Dr. Philip Carlin, my advisor, who has guided me through the many tasks required to complete the doctoral program and given me the personal and professional advice to succeed.

Two individuals were extremely valuable assisting me complete this written document. Dr. David Suddick, Professor at Governors State University, provided technical assistance in the statistical analysis of the data and Mrs. Irene Butler, a fellow worker in Bremen High School District 228 and a real friend, provided editing and typing expertise.

My children, Michael, Dan, Brian, and Meghan, supported me when, due to the need to prioritize my time, their needs may have become secondary. I love them for their understanding.

To my wife, Kathy, I dedicate this work for the patience, encouragement, understanding and love she has shown me throughout all these many years we have been together and particularly during the completion of the doctoral program. She has always been the source of my strength to undertake an especially difficult task and was there continuously through the completion of this one. My love and devotion to her is foremost in my life.

VITA

James Edward Riordan was born in Chicago, Illinois on August 30, 1944. He graduated from Mendel Catholic High School in 1962.

In June 1966 he was awarded the degree of Bachelor of Arts from Loras College in Dubuque, Iowa, with a major in sociology. He was awarded the Master of Education degree from DePaul University in 1969.

Mr. Riordan was employed as a teacher at Mendel Catholic High School from 1966-1970. He began his employment in the Bremen High School District 228 in 1970. He has held numerous administrative positions at the four District 228 high schools: Bremen, Tinley Park, Hillcrest, and Oak Forest. He chaired numerous committees within the district, was elected president of the South-Inter Conference Association Activities Board of Control and Principals Board of Control. He has also been a member of state and national organizations and committees.

Mr. Riordan is presently the Superintendent of Bremen High School District 228.

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Chapter I

Introduction and Overview

This study investigates the satisfaction and motivation of high school coaches. If schools are to be more effective, then research must be expanded beyond the narrow view of job satisfaction in education (Greenfield, 1983)¹. Most research focuses upon the role-entry phenomenon even though it has long been recognized that a multiplicity of complex forces, i.e., the school system, school professional, students and the individual, interact to form career dynamics of the teacher. As Greenfield notes, the topic of the multidimensional interplay of job satisfaction and motivation has yet to receive any substantial attention in research in education. This position is supported by the sparse frequency of entries for job motivation in the Education Indexes.

Regarding coaches, there is limited research about job satisfaction. For example, Evans et al (1986)² reported only one entry for job satisfaction, i.e., a scale developed for a doctoral

¹William O. Greenfield, Jr., "Career Dynamics of Education: Research and Policy Issues," Educational Administration Quarterly, 19 (2):5-25, 1983.

²Vrider Evans, Joe P. Ramsey, Dewayne Johnson, Dana Renwick and Jean-Guy Vienneau, "A Comparison of Job Satisfaction, Leadership Behavior and Job Perception Between Male and Female Athletic Directors," Physical Educator, 43:1:39-43, 1986.

dissertation (Ramsey, 1981)³. The focus of the vast majority of published manuscripts focus upon humanistic coaching (Danzinger, 1982)⁴, not the philosophy of "winning is not everything--it's the only thing." Rather the true coach is to assist players in developing their potential (Millwen, 1979⁵, Neal, 1969)⁶. Skill and character development, not the final score, should be the main thrust of the coach (Gallwey, 1974⁷, 1979)⁸. These positions are akin to numerous articles in recent entries in Physical Education.

Model Options

Glueck (1974)⁹ presented several models which have potential value to investigate work satisfaction and motivation. The

³J. P. Ramsey, "Comparison of Job Satisfaction of Black and White Male Coaches of Predominately Black and White Colleges," Unpublished Doctoral dissertation, East Tennessee State University, 1985.

⁴Raymond C. Danzinger, "Coaching Humanistically, an Alternative Approach," Physical Educator, 39 (3):121-125, 1982.

⁵D. Millwen, "Whole Body Fitness: Training Mind, Body, and Spirit," New York: Clarkson N. Patten, 1979.

⁶P. Neal, "Coaching Methods for Women," Reading, MA: Addison-Wesley, 1969.

⁷W. T. Gallwey, The Inner Game of Tennis, New York: Random House, 1974.

⁸Ibid., Inner Tennis: Playing the Game, New York: Random House, 1979.

⁹William F. Glueck, Personnel: A Diagnostic Approach, Dallas: Business Publications, 1974.

stimulus-response theory (Skinner, 1953¹⁰, Hull, 1952)¹¹ suggests that positive employee attitudes or motivation are a result of effective learning at work. On the other hand, the expectancy theory (Vroom, 1964)¹² holds that people act to achieve goals, and in the process, they are able to establish preference on the likely outcome of their actions.

Two need theories were options to the stimulus-response and expectancy theories. The Atkinson-McClelland theory (Atkinson, 1964¹³, Atkinson and Feather, 1966¹⁴, McClelland, 1951¹⁵, and McClelland et al 1953)¹⁶ is based upon several assumptions. Mentally healthy adults have a large pool of potential, and these individuals have basic motives or needs to channel their energy. In the workplace, there are three relevant motives: the need for achievement, the need for affiliation, and the need for power. Needs differ in degree, not kind, and the stimulus which elicit the motive is the situation with which the person is dealing. However, factors in a situation arouse different needs, and each motive or need leads to different patterns of actions. Moreover,

¹⁰B. T. Skinner, "Science and Behavior," New York: MacMillan, 1953.

¹¹Clark Hull, A Behavior System, New Haven, CN: Yale Press, 1952.

¹²Victor Vroom, "Some Personality Determinants of the Effects of Participation," Englewood Cliffs, NJ: Prentice-Hall, 1960.

¹³J. W. Atkinson, An Introduction to Motivation, New York: American Book Co., 1964.

¹⁴J. W. Atkinson and Norman T. Feather (ed.), A Theory of Achievement Motivation, New York: John Wiley and Sons, 1966.

¹⁵David McClelland, "The Personality," New York: Dryden Press, 1951.

¹⁶David McClelland et al, "The Achievement Motive," New York: Appleton-Century-Crofts, 1953.

the situation or stimuli may be changed with the resulting motive arousal also being effected.

Maslow (1954¹⁷, 1962¹⁸, 1965)¹⁹ proposed a different need model, one based upon a hierarchy of five levels of needs: physiological, safety, social, self-esteem, and self-fulfillment. Needs are satisfied in the order of most basic to most complex. Thus, after a need is met, that level ceases to motivate behavior.

Lastly, Herzberg et al (1959)²⁰ proposed the two-factor motivation-hygiene model. His theory was that the motivators for work are distinctly different than the focus upon the work environment: the latter paradigm was chosen as the theoretical model for inquiry for three reasons: it was testable; it has been the form of study in a wide variety of work environments including education; and it has the potential of generating meaningful results.

Theoretical Model

The motivation-hygiene or two factor theory was originally formulated almost thirty years ago by Herzberg, Mausner and Snyderman (1959)²⁰. The empirical basis of model was grounded in the responses of

¹⁷ Abraham Maslow, Motivation and Personality, New York: Harper and Row, 1954.

¹⁸ Ibid., Toward A Psychology of Being, New York: Van Nostrand, 1962.

¹⁹ Ibid., Eupsychian Management: A Journal, Homewood, IL: Richard D. Irvine, 1965.

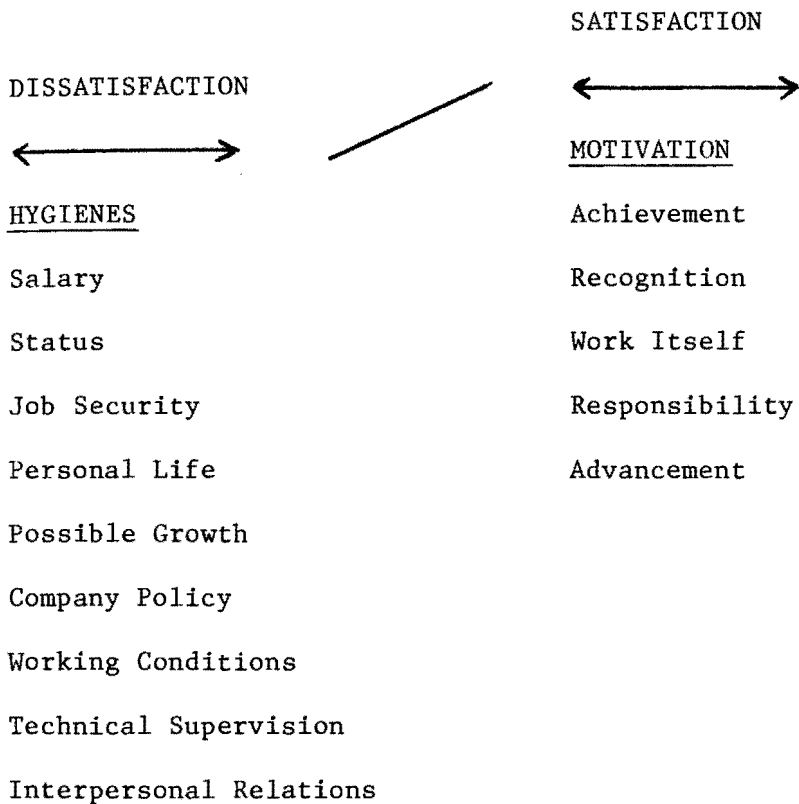
²⁰ Frederick Herzberg, Bernard Mausner and Barbara Snyderman, The Motivation to Work, New York: John Wiley and Sons, 1959.

203 accountants and engineers who were asked about events that they had experienced at work which either had resulted in a marked improvement in their job satisfaction or had led to a marked reduction in job dissatisfaction. Succinctly, two separate categories of needs were identified; i.e., hygiene--the focus upon the work environment, and motivation--the focus upon the intrinsic aspects of the work itself.

The four hypotheses result from the Herzberg efforts. These are:

- 1) The factors involved in producing job satisfaction are separate and distinct from factors leading to job dissatisfaction.
- 2) The opposite of job satisfaction is not job dissatisfaction; rather it is no job satisfaction. Likewise, the opposite of job dissatisfaction is no job dissatisfaction, not job satisfaction.
- 3) The factors that lead to satisfaction (such as achievement, recognition, and advancement) contribute very little to job dissatisfaction.
- 4) The factors that lead to dissatisfaction (such as supervision, interpersonal relationships, and salary) contribute very little to job satisfaction.

Thus, the common conception of a simple bipolar paradigm was not hypothesized. Rather, the relationship between the hygiene factor and the motivational factor is as follows:



Purpose

The Herzberg motivation-hygiene model is central to this study. Generally, the current inquiry was undertaken to ascertain the satisfaction and motivation of high school coaches and if their attributes are tied to the Herzberg two-factor theory.

The specific objectives of this study are:

- 1) To determine whether satisfying and motivating experiences of high school coaches are similar to the lack of continua in the Herzberg motivation-hygiene theory.
- 2) To determine whether least satisfying and unmotivating experiences of high school coaches are similar to the lack of continua in the Herzberg motivation-hygiene theory.

- 3) To determine the effect of positive and motivating experiences on high school coaches' attitudes toward the profession.
- 4) To determine the effect of negative and hygienic experience on high school coaches' attitude toward the profession.
- 5) To determine the dependence of positive and motivating experience with the coaches:
 - a. Tenure status,
 - b. Years of experience,
 - c. Formal evaluation of performance,
 - d. Won-loss percentage, and
 - e. Salary for coaching.
- 6) To determine the dependence of negative and hygienic experiences with the coaches:
 - a. Tenure status,
 - b. Years of experience,
 - c. Formal evaluation of performance,
 - d. Won-loss percentage, and
 - e. Salary for coaching.

Methods and Procedures

The South Inter-Conference Association (SICA) is a group of 33 Northeastern Illinois high schools whose boundaries range as follows: Argo on the north, Lansing on the east, Kankakee on the south, and

Joliet on the west. The SICA institutions range in size from a low of 900 students to a high of 3200 students. The conference represents the largest high schools in the specified geographical area.

The researcher appeared before the SICA Athletic Board of Control to seek their approval and cooperation for this study. This ten member board endorsed the inquiry. A five page questionnaire was developed. Participants were requested to describe the most satisfying incident in their coaching career and were asked to describe how they felt after their experience. They were then requested to respond to three additional items: the intensity of the experience, the duration of the experience, and the over-all affect of the experience upon their future coaching plans. A similar format of query was used to elicit the least satisfying experience in the coaches' career. Finally, five demographic questions were asked: tenure status, years of experience, formal evaluation of performance, won-loss percentage, and salary for coaching duties.

The survey was administered to coaches of three male sports - football, basketball, and baseball; and three female sports - volleyball, basketball, and track at four selected SICA high schools. This was accomplished by forwarding to the high school athletic director a packet containing six envelopes. Each envelope contained an introduction and explanation of the study and the questionnaire.

Since the procedure resulted in useful data from over 60% of the sample, the methodology was then applied to the remaining 28 high schools. Thus, a total of 168 survey packets were forwarded to the SICA

coaches in the six specified aspects: The Flanagan (1954)²¹ critical incident technique was used to identify the most and least satisfying experience in the coach's career and how that coach felt about both events: The most and least satisfying events were identified as one of the fourteen first level motivational hygiene variables. The facts about each event were identified as one of the twelve second-level Herzberg factors.

Scope and Limitation of the Study

This study was limited to reports of most satisfying and dissatisfactory events in 168 high school coaches' careers as well as their concurrent feeling regarding each incident. These coaches were employed in high schools affiliated with the SICA conference in three male sports - football, basketball, and baseball; and three female sports - volleyball, basketball, and track. The data was collected in May, 1986.

Given the limitations cited above, any generalizations of the findings of this study to dissimilar high school coaches would not be warranted. An additional limitation in this study, unlike other Herzberg studies, is that salary for coaching is for part-time work and is not the primary source of income for coaches. While aspects of this inquiry may have far reaching implications, the conclusions are limited to those supported by actual data.

²¹J. C. Flanagan, "The Critical Incident Technique," Psychological Bulletin, 51:327-358, 1954.

Chapter II

Review of Related Literature

As noted in Chapter I, there is a dearth of substantial research regarding job satisfaction and motivation in the field of education (Greenfield, 1983)²². Nevertheless, some significant inroads have been made, for example, the research of Hebert (1983)²³. Her application of the Herzberg (1959)²⁴ two-factor model to job satisfaction and motivation in education strongly support the methodology to be used in this study. However, the literature will be reviewed first.

The review of the literature is divided into four sections. The one precursor methodology, i.e., the critical incident, to the model is discussed followed by a detailing of the Herzberg Motivation-Hygiene Theory. The application in the two spheres, non-education and education, is then addressed.

²²William O. Greenfield, Jr., "Career Dynamics of Education: Research and Policy Issues," Educational Administration Quarterly, 19 (2):5-25, 1983.

²³Elizabeth A. Hebert, "A Study of Effective and Ineffective Behavior in Special Education," Unpublished Doctoral dissertation, Loyola University of Chicago, 1983.

²⁴Frederick Herzberg, Bernard Mausner and Barbara Snyderman, The Motivation to Work, New York: John Wiley and Sons, 1959.

Critical Incident Technique

The purpose of job analysis is to formulate a description of what workers do on the job (Anastasi, 1968)²⁵. Hull (1952)²⁶ was the first to stress the concept of distinguishing aspects of job performance; Flanagan (1949²⁷, 1954²⁸) re-emphasized the concept and proposed the critical incident technique (Flanagan, 1954)²⁸.

The critical incident technique, a direct outgrowth of Flanagan involvement of studies in the Aviation Psychology Program of the United States Army Air Force during World War II, demands comparing and contrasting factual descriptions of successful and unsuccessful military activities such as pilot competence, bombing missions and combat leadership. The interpretation of this inductively classified data is intended to yield practical suggestions for improvement of training.

The critical incident technique has been extended to use beyond military applications Anastasi (1968)²⁹ notes the application of the procedure with such diverse groups of factory workers, dentists, and department store salesclerks.

²⁵ Anne Anastasi, Psychological Testing (3rd ed.), New York: MacMillan Co., 1968.

²⁶ Clark Hull, A Behavior System, New Haven, CN: Yale Press, 1952.

²⁷ J. C. Flanagan, "Critical Requirements: A New Approach to Employee Evaluations," Personnel Psychology, 2:419-425, 1949.

²⁸ Ibid., "The Critical Incident Technique," Psychological Bulletin, 51:327-358, 1954.

²⁹ Anne Anastasi, Psychological Testing (3rd ed.), New York: MacMillan Co., 1968.

The critical incident technique has withstood quantitative investigation. Andersson and Niesson (1964)³⁰ were the first to ascertain that the procedure was a reliable and valued method of data collection. Ronan and Latham (1974)³¹ verified the foregoing and extended the support of the methodology. In addition to confirming that the critical incidence technique leads to reliable judgments based upon content validity, Ronan and Latham (1974)³¹ found satisfactory indicators for the criteria of construct validity and the relevance of the critical behaviors to success or failure.

Corbally (1956)³² endorsed the application of the critical incident technique to the field of education research. Subsequent inquiries have confirmed his position. The studies are noted in chronological order.

Di Johnson (1970)³³ undertook an inquiry of supervisory behavior as perceived by teachers of exceptional children. Special education teachers felt that their supervisors needed to develop appropriate skills for more favorable social-emotional climates, and that supervisors should apply techniques specifically applicable to special education settings, not classrooms in general.

³⁰Bengt-Eric Andersson and Stag-Goran Niesson, "Studies in Reliability and Validity of the Critical Incident Technique," Journal of Applied Psychology, 48:395-403, 1964.

³¹William W. Ronan and Gary P. Latham, "The Reliability and Validity of the Critical Incident Technique: A Closer Look," Students in Personnel Psychology, 6:53-64, 1974.

³²John E. Corbally, "The Critical Incidence Technique and Educational Research," Educational Research Bulletin, 35:57-62, 1956.

³³Albert Di Johnson, "Critical Supervisory Behavior as Perceived by Teachers of Exceptional Children," Unpublished Doctoral dissertation, Syracuse University, 1970.

Using the critical incidence technique, Cheesebrough (1971)³⁴ summarized suggestions for improving the effectiveness of college supervisors per the input of student and cooperating teachers. The college supervisor should assume a proactive role in enhancing the relationship among the student teaching participants, and in providing specific technical assistance in teaching style, classroom control, and principal-teacher relationships.

Sellers (1972)³⁵ ascertained the nature and source of critical job satisfiers and dissatisfiers of public school teachers in all twelve grades. He found that the five most frequently cited satisfiers of these instructors were: 1) recognition for teacher achievement, 2) student achievement, 3) affection, 4) teacher achievement, and 5) recognition for student achievement. On the other hand, the most frequently cited dissatisfiers were: 1) perceived denigration, 2) organizational impingements, and 3) sense of disappointment.

At some variance was the source of satisfaction and dissatisfaction. Sellers, in the same study, found the teachers perceived that lauding came from students, parents, administration, and former students, while criticism was primarily generated by the school administration, parents, and peers. In addition, dissatisfying incidents were reported six times as frequently as satisfying events for the administrative source.

³⁴Dean Cheesebrough, "Effective and Ineffective Behaviors of the College Supervisor as Perceived by Elementary Student Teachers and Cooperating Teachers," Unpublished Doctoral dissertation, Miami University, 1971.

³⁵Joel Sellers, "The Nature, Source and Administrative Implications of Satisfiers and Dissatisfiers Affecting Classroom Teachers: A Critical Incident Study of Motivation," Unpublished Doctoral dissertation, University of Arkansas, 1972.

Lee's (1974)³⁶ application of the critical incident technique was undertaken to ascertain if there were differences in the perceived supervisory functions between teachers and principals. Staff relations was the most critical factor with more ineffective than effective events for this dimension of the supervisory role.

An investigation of critical incidents effecting supervision of special education teachers was reported by Krueger (1977)³⁷. Based upon the documented events, he recommended that the frequency of observation visits be increased and that the involvement of supervisors be focused more upon construction of daily lesson plans.

Summary

The critical incident technique, while developed for military use during World War II, has been extended to a wide range of disciplines including education. The technique is a procedure for collecting and analyzing behavior on a particular task. The critical incidence technique has withstood quantitative scrutiny in that it is reliable and valid.

Regarding the field of education, the critical incident technique has been used to provide insight into the improvement of

³⁶Bill Lee, "Critical Incidents of Supervisory Functions of Principals in Southwestern New Mexico," Unpublished Doctoral dissertation, East Texas State University, 1974.

³⁷Mark Krueger, "Critical Incidents Affecting the Supervisors of Special Education Student Teachers," Unpublished Doctoral dissertation, Lehigh University, 1977.

teacher education program and potential guidance regarding situations of conflict in the educational setting. In addition, one study, Sellers (1972),³⁹ while focusing upon the critical incident technique, resulted in findings which partially confirm the Herzberg (1959)³⁸ Two-Factor Model.

Herzberg Motivation - Hygiene Model

As cited in the previous section, Sellers (1972)³⁹, via the critical incident technique, found that for teachers, job satisfiers differed from job dissatisfiers. This was the same conclusion recorded by Herzberg et al (1959)³⁸ in a review of the primary factors associated with reports of job satisfaction and dissatisfaction. Herzberg hypothesized that certain factors acted mainly as only satisfiers, but the absence of these factors did not lead to job dissatisfaction. In a similar manner, factors associated with dissatisfaction resulted in job dissatisfaction if present, but if absent did not lead to job satisfaction.

This two-factor paradigm is a variance with traditional bipolar view that satisfaction and dissatisfaction are at opposite ends of a single strand or continuum. The simplistic thesis to this approach is that satisfaction can be enhanced if dissatisfaction is eliminated or improved reported Griffith (1979)⁴⁰.

³⁸Frederick Herzberg, Bernard Mausner and Barbara Snyderman, The Motivation to Work, New York: John Wiley and Sons, 1959.

³⁹Joel Sellers, "The Nature, Source and Administrative Implications of Satisfiers and Dissatisfiers Affecting Classroom Teachers: A Critical Incident Study of Motivation," Unpublished Doctoral dissertation, University of Arkansas, 1972.

The Flanagan (1954)⁴¹ critical incident technique was applied by Herzberg et al (1959)³⁸ to over 200 apperceptions of accountants and engineers which detailed what made them happy and unhappy about their jobs. In addition the respondents were requested to indicate their feelings about these episodes.

The job satisfaction - dissatisfaction incidents were grouped into factors or themes.

A total of fourteen discrete categories emerged:

Achievement: To complete a job successfully or to fail to do a job adequately.

Recognition: To be singled out for praise or for criticism or blame.

Work Itself: To like or dislike the actual tasks involved in getting the job done.

Responsibility: To gain responsibility for own or others work or to take responsibility for a job or to lack responsibility.

Advancement: To change status through promotion or demotion or to miss an expected promotion.

Salary: To obtain a salary increase or to lose out on an expected one.

Possibility of Growth: Changes in a job which could lead to further growth or which could be satisfying.

⁴⁰Frances Griffith, Administrative Theory in Education: Text and Reading, Midland, MI: Pendell Publishing, 1979.

⁴¹J. C. Flanagan, "The Critical Incident Technique," Psychological Bulletin, 51:327-358, 1954.

Interpersonal Relations: (Supervisors, Peers, Subordinates):

To experience satisfying or dissatisfying social interactions with one's superior, peer, or subordinate.

Status: To obtain some sign or appurtenance of status or to lose it.

Technical Supervisor: To have a competent or incompetent supervisor.

Company Policy and Administration: To be in a company with good policies and administrative procedures or the opposite situation.

Working Conditions: To have good physical surroundings on the job or the poor ones.

Personal Life: To have one's personal life affected for good or ill by occurrences on the job.

Job Security: Objective indication of security such as job tenure and company stability.

Attributes which lead to job satisfaction were denoted as motivators while those which were more closely associated with job dissatisfaction were termed hygienes. The rationale for the coinage of terms was that motivators were tied to productivity and the job activity itself, whereas hygienes were more environmental to the job situation. The frequency of occurrence of each factor in stories of job satisfaction and job dissatisfaction are detailed in Table 1. Based upon the data, Herzberg et al concluded that motivation contributed substantially to job satisfaction but little to job dissatisfaction. On

the other hand, hygienes contributed substantially to job dissatisfaction but little to job satisfaction.

TABLE 1

Percentage of Herzberg First Level Factors in
Incidents of Job Satisfaction and Job Dissatisfaction
in Motivation to Work

<u>Factor</u>	<u>Satisfaction</u>	<u>Dissatisfaction</u>
Achievement	41	7
Recognition	33	18
Work Itself	26	14
Responsibility	23	6
Advancement	20	11
Salary	15	17
Possibility of Growth	6	8
Interpersonal Relations-Subordination	6	3
Status	4	4
Interpersonal Relations-Supervisor	4	15
Interpersonal Relations-Peer	3	8
Supervisor-Technical	3	20
Company Policy/Administration	3	31
Work Conditions	1	11
Personal Life	1	6
Job Security	1	1

Then a second analysis of data was conducted, i.e., rationales for feeling as the employees did. Twelve second level factors were identified:

Feelings of recognition

Feelings of achievement

Feelings of possible growth, blocks to growth, first level factors perceived as evidence of growth.

Feelings of responsibility, lack of responsibility, or diminished responsibility.

Feelings of advancement from change on job situation

Feelings of fairness or unfairness

Group feeling, feeling of belonging or isolated, sociotechnical or pure social.

Feelings of interest or lack of interest in the performance of the job.

Feelings of increased or decreased job status.

Feelings of increased or decreased security.

Feelings of pride or inadequacy or shame.

Feelings about salary.

King (1970)⁴², in his review of the literature noted that various researchers had divergent interpretations of Herzberg's two-factor model. King faulted Herzberg for not explicitly stating his theory. Therefore, there are five stated or implied versions of this motivation-hygiene paradigm.

These are:

Theory I: All motivators combined contribute more to job satisfaction than to job dissatisfaction.

All hygienes combined contribute more to job dissatisfaction than to job satisfaction.

Theory II: All motivators combined contribute more to job satisfaction than do all hygienes combined.

⁴²Nathan King, "Clarification and Evaluation of the Two-Factor Theory of Job Satisfaction," Psychological Bulletin, 74:18-31, 1970.

All hygienes combined contribute more to job dissatisfaction than do all motivators combined.

Theory III: Each motivator contributes more to satisfaction than to dissatisfaction.

Each hygiene contributes more to dissatisfaction than to satisfaction.

Theory IV: In addition to Theory III,

Each principal motivator contributes more to satisfaction than does any hygiene.

Each principal hygiene contributes more to dissatisfaction than does any motivator.

Theory V: Only motivators determine satisfaction.

Only hygienes determine dissatisfaction.

King (1970)⁴², in his best professional judgment found that the Herzberg work encompassed Theories I, II, and III as stated above, however, he questioned if Herzberg intended Theories IV and V as a valid interpretation of his work. It is most interesting to note that neither Herzberg nor his opposition has never clarified this issue.

Given the foregoing, it was not surprising that Whitsett and Winslow (1967)⁴³ found misunderstanding of the results of these related studies. They noted that methodological weakness existed in many studies attempting to use the two-factor model.

⁴²Nathan King, "Clarification and Evaluation of the Two-Factor Theory of Job Satisfaction," Psychological Bulletin, 74:18-31, 1970.

⁴³David Whitsett and Erik Winslow, "An Analysis of Studies Critical of the Motivation-Hygiene Theory," Personnel Psychology, 20:391-415, 1967.

Drinnette and Kirchner (1965)⁴⁴ praised the interview procedure used by Herzberg. Lauding was also echoed by Farr (1977)⁴⁵, and by Harre and Secord (1972)⁴⁶, but Farr faulted Herzberg for accepting on face value qualitative data for use in drawing a causal inference to job satisfaction and dissatisfaction. French et al (1973)⁴⁷ noted that the Herzberg findings were method dependent. A similar note of caution was sounded by Kahn (1961)⁴⁸ who nevertheless went on to praise the work suggesting that satisfaction-dissatisfaction were different traits, not a bipolar factor.

Summary

The Herzberg two-factor model is detailed in this section, but it is open to varied interpretations. This fact may explain why researchers have formed differing conclusions. Nevertheless, the Herzberg Motivation-Hygiene Model is an extension of the Flanagan Critical Incident Technique. The two-factor model, while criticized by

⁴⁴M. Drinnette and W. Kirchner, Psychology Applied to Industry, New York: Appleton-Century-Crofts, 1965.

⁴⁵Robert M. Farr, "On the Nature of Attributional Artifacts in Qualitative Research: Herzberg's Two-Factor Theory of Work Motivation," Journal of Occupational Psychology, 50:3-14, 1977.

⁴⁶R. Harre and P. Secord, The Exploration of Social Behavior, Oxford: Blackwell, 1972.

⁴⁷Earl B. French, Morton Metersky, David Thaler, and Jerome Trexler, "Herzberg's Two-Factor Theory: Consistency versus Method Dependency," Personnel Psychology, 26:369-375, 1973.

⁴⁸Robert L. Kahn, "Job Factors, Attitudes, and Effects," Contemporary Psychology, 6:9-10, 1961.

some and lauded by others, has been used in a varied of settings. A presentation of these efforts is provided in the ensuing sections of this chapter.

Investigation of the Herzberg Two-Factor Model
in Non-Educational Setting

Following the publication of Motivation to Work, many studies were undertaken to test the Herzberg model. Some of these inquiries are at methodological variance to the original Herzberg study. For example, Herzberg (1965)⁴⁹ replicated his precursor investigation with one exception, i.e., substituting a questionnaire for the interview to elicit the critical incidents when he crossvalidated his two-factor theory of motivation-hygiene.

Using a sample of about 2000 government employees, Friedlander (1965)⁵⁰ found that the work process tended to elicit positive motivation while work context and community tended to elicit negative motivation. Confirmation of the Herzberg model was found by Schwartz, et al (1963)⁵¹, also. In addition to using questionnaires over personal interviews, the Schwartz group used only the fourteen first-level

⁴⁹ Frederick Herzberg, "The Motivation to Work Among Finnish Supervisors," Personnel Psychology, 18:393-402, 1965.

⁵⁰ Frank Friedlander, "Job Satisfiers and Dissatisfiers," Journal of Applied Psychology, 48:358-392, 1964.

⁵¹ Milton Schwartz, Edmund Jenusaitis and H. Stark, "Motivational Factors Among Supervisors in the Utility Industry," Personnel Psychology, 16:45-53, 1963.

factors, i.e., they omitted the twelve second-level factors of the original Herzberg study. Nevertheless, they confirmed that job related factors are associated with positive work experience, and contextual factors are associated with negative work experiences. The work of Walt (1962)⁵² generally followed the Herzberg model. For government women employees, motivators were achievement, work itself, recognition, responsibility, and interpersonal relationships. The latter is a Herzberg hygiene variable.

Myers (1964)⁵³ reported confirmation of the Herzberg two-factor model. Beyond this, the results of the study were incorporated into a supervisory training program for a Fortune 500 company. Other applications of the Herzberg model are found in the selected literature. Weissenberg and Gruenfeld (1968)⁵⁴ found that the motivation and hygiene variables can be useful for predicting job involvement of civil service supervisors.

The nursing profession has been the focus of Herzberg hypothesis testing. Janelli and Jarmuz (1987)⁵⁵ studied the motivation and satisfaction of 69 reserve flight nurses. They found that for this

⁵²Dortan Walt, "The Motivation for Women to Work in High Level Professional Positions," Unpublished Doctoral dissertation, American University, 1962.

⁵³M. Myers, "Who Are Your Motivated Workers?," Harvard Business Review, 42:73-88, 1964.

⁵⁴Peter Weissenberg and Legsold Gruenfeld, "Relationship Between Job Satisfaction and Job Involvement," Journal of Applied Psychology, 52:469-473, 1968.

⁵⁵Linda M. Janelli and Patricia A. Jacmuz, "Motivational Factors That Affect the Retention of Reserve Nurses in Eight Aeromedical Evaluation Flights," Aviation, Space and Environmental Medicine, 58:375-378, 1987.

sample motivational factors had a greater impact on job satisfaction than did hygiene factors. Munro (1983)⁵⁶, in her study of recent graduates of schools of nursing, found evidence to support the Herzberg theory for the five motivators included in her analysis, i.e., achievement, work itself, responsibility, advancement and growth. Responsibility was the strongest determinant of job satisfaction. Agreement for this finding was found by McIntire (1985)⁵⁷. On the other hand, Smith (1983)⁵⁸ noted only partial support for the Herzberg model. She found that while hygiene contributed more to job dissatisfaction, no significant difference was found for motivation and hygiene for job satisfaction.

In a profession akin to nursing, that of resident advisors working in an apartment-based community living arrangement for mildly and moderately retarded, Leonard and et al (1981)⁵⁹ confirmed the Herzberg theories. The primary motivators were opportunity for growth, status and recognition for a job well done.

It was most interesting to note that investigation of the two-factor model extended beyond the context of most studies in the world of work.

⁵⁶Barbara H. Munro, "Job Satisfaction Among Recent Graduates of Schools of Nursing," Nursing Research, 32:350-355, 1983.

⁵⁷Annie Sue Norville McIntire, "Job Satisfaction Among Registered Nurses Employed in Hospitals in the Research Triangle of North Carolina," Unpublished Doctoral dissertation, North Carolina State University at Raleigh, 1985.

⁵⁸Verlean V. Smith, "A Study of Motivational Factors Contributing to Job Satisfaction for Nurses: An Examination of Herzberg's Two-Factor Theory," Unpublished Doctoral dissertation, Oklahoma State University, 1983.

⁵⁹H. Skipton Leonard, Howard Margolis, and Daniel J. Keating, "Salient Factors Influencing Resident Advisor Turnover: An Exploratory Study," Child Care Quarterly, 10:329-333, 1981.

For example, Reiter et al (1985)⁶⁰ studied motivational background and interests of 83 mildly to moderately retarded adults. For this group of subjects, the Herzberg model was supported. Thus, the importance of taking into consideration the extrinsic and intrinsic rewards and satisfactions from work should not be ignored for the retarded.

Another most interesting application of the Herzberg model was undertaken by Saleh and Otis (1963)⁶¹ when they studied the perceptions of 85 male, managerial level pre-retirees ranging from 60 to 65 years. The researchers hypothesized the individuals who were job oriented, versus those who were not, would have a more difficult time coming to grips with their forthcoming retirement. The researchers concluded that pre-retirees who stress environmental factors as a source of job satisfaction have more favorable attitudes toward retirement. Conversely, the opposite was the case for those deriving job satisfaction from the motivators.

In comparison to the above which are characterized as validating the Motivation-Hygiene theory as originally proposed by Herzberg, other studies partially endorse the two-factor model.

Some of the studies found that the motivators were more important to job satisfaction than the hygiene. While Friedlander

⁶⁰Shunit Reiter, Lura Freidman and Malga Mulcho, "Motivational, Vocational Interests and Job Satisfaction of Mentally Retarded Adults," International Journal of Rehabilitation Research, 8:19-28, 1985.

⁶¹S. Saleh and J. Otis, "Sources of Job Satisfaction and Their Effect on Attitudes Toward Retirement," Journal of Industrial Psychology, 1:101-106, 1963.

(1964)⁶² confirmed that job satisfiers and dissatisfiers were not at opposite ends of a bi-polar factor, he also noted that job satisfiers were more important than hygiene. The research of Halpern (1966)⁶³ support their position as did the efforts of Wernimont (1966)⁶⁴. A sample of white, male, blue collar workers participated in the Malinovsky and Barry (1965)⁶⁵ study. These researchers concluded for this sample that job satisfaction was related to both the motivation and the hygiene components. This was the case for low level black workers also (Bloom and Barry, 1967)⁶⁶. This is consistent with the position taken by Herzberg (1966)⁶⁷ i.e., the two-factor theory is useful application when the status of the worker is low. Centers and Bugental (1966)⁶⁸ found supporting evidence for the heretofore. They found that white collar workers continually placed greater value on intrinsic sources of job satisfiers, whereas blue collar workers placed greater

⁶²Frank Friedlander, "Job Satisfiers and Dissatisfiers," Journal of Applied Psychology, 48:358-392, 1964.

⁶³C. Halpern, "Relative Contributions of Motivation and Hygiene Factors to Overall Job Satisfaction," Journal of Applied Psychology, 50:198-200, 1966.

⁶⁴Paul F. Wernimont, "Intrinsic and Extrinsic Factors in Job Satisfaction," Journal of Applied Psychology, 50:41-50, 1966.

⁶⁵M. R. Malinowsky and J. R. Barry, "Determinants of Work Attitudes," Journal of Applied Psychology, 49:446-452, 1965.

⁶⁶R. Bloom and J. F. Barry, "Determinants of Work Attitude Among Negroes," Journal of Applied Psychology, 51:291-294, 1967.

⁶⁷Frederick Herzberg, Work and The Nature of Man, Cleveland: World Publishing Company, 1966.

⁶⁸R. Centers and D. E. Bugental, "Intrinsic and Extrinsic Job Motivations Among Different Segments of the Working Population," Journal of Applied Psychology, 50:193-197, 1966.

satisfaction on extrinsic sources. While not disputing that a difference between the motivators of white and blue collar workers exist, a different explanation was offered by Whitsett and Winslow (1967)⁶⁹. They speculated that some motivating factors were not available to blue collar workers; thus, any conclusion regarding these variables not being valued by low status workers may be premature. Irrespective of the parsimonious explanation, the research efforts of Lahiri and Srivastva (1967)⁷⁰ and of Lein and Sepulveda (1979)⁷¹ add credibility to the position that for lower level, or lower status, employees have different motivation and hygiene patterns than higher level status workers.

Not every study in the literature was in total agreement or, for that matter, partial concordance with the Herzberg two-factor model. Ewen et al (1966)⁷² found no support for the theory based upon a stratified sample of 800 employees in industrial and business organizations. Ewen (1964)⁷³ using a sample of over 1000 insurance agents reported that satisfiers acted as dissatisfiers, and that work

⁶⁹David Whitsett and Erik Winslow, "An Analysis of Studies Critical of the Motivation-Hygiene Theory," Personnel Psychology, 20:391-415, 1967.

⁷⁰D. K. Lahiri and S. Srivastva, "Determinants of Satisfaction in Middle Management Personnel," Journal of Applied Psychology, 51:254-265, 1967.

⁷¹Fredrico Lein and Maria Sepulveda, "Sortistacions e Insatisfaccienes Herzborgians en el Trabajo," Revista Latinqamesicano de Psicologia, 2:93-113, 1979.

⁷²Robert Ewen, P. Smith, C. L. Hulin and E. A. Locke, "An Empirical Test of Herzberg's Two Factor Theory," Journal of Applied Psychology, 50:544-550, 1966.

⁷³Robert Ewen, "Some Determinants of Job Satisfaction: A Study of the Generality of Herzberg's Theory," Journal of Applied Psychology, 48:161-163, 1964.

itself caused both satisfactions and dissatisfactions. He was most critical of the Herzberg study. It, in his professional judgment, was narrow in the jobs investigated, used only one measure of job attitude, did not cite reliability and validity data, and did not measure overall job satisfaction.

Graen (1966)⁷⁴, using a sample of 153 engineers employed in electronics firms, concluded that the Herzberg content categories did not constitute homogeneous groups. This finding was based upon a correlational study of a 96 item survey. On the other hand, Hulin and Smith (1967)⁷⁵ determined for 670 office personnel in Montreal that their job satisfaction and job dissatisfaction was caused by the same variable. These results are at variance with the Herzberg two-factor model.

Hinricks and Nuschkind (1967)⁷⁶ conducted a study of the Herzberg model per the perceptions of over 600 technicians in service work. The results did not support the Herzberg theory. Drinnette et al (1967)⁷⁷ developed two sets of standardized statements based upon the Herzberg definitions. Participating in the study were a cross section

⁷⁴G. Graen, "Motivation and Hygiene Demensions for Research and Development of Engineers," Journal of Applied Psychology, 50:563-566, 1966.

⁷⁵C. L. Hulin and P. Smith, "An Empirical Investigation of Two Implications of the Two-Factor Theory of Job Satisfaction," Journal of Applied Psychology, 51:396-402, 1967.

⁷⁶J. R. Hinricks and L. A. Nuschkind, "Empirical and Theoretical Limitation of the Two-Factor Hypothesis of Job Satisfaction," Journal of Applied Psychology, 51:191-200, 1967.

⁷⁷Marion Drinnette, John Campbell and Milton Hakel, "Factors Contributing to Job Satisfaction and Job Dissatisfaction in Six Occupational Groups," Organizational Behavior and Human Performance, 2:143-174, 1967.

of subjects from varying occupational groups: store managers, sales clerks, secretaries, engineers and research scientists, machine equipment salesmen, army reservists and night students from various occupations. Using correlational analysis, the two-factor approach was not confirmed. Achievement, recognition and responsibility were found to be uniformly important as satisfiers and dissatisfiers. In addition, less important were salary, working conditions, company policy and security.

Regarding the studies critical of the Herzberg two-factor model, Whitsett and Winslow (1967)⁷⁸ reported sparse validity evidence and that the critics tended to misunderstand the theory. In addition, the studies most critical of the Herzberg motivation-hygiene model were found by Whitsett and Winslow (1967)⁷⁸ and by King (1970)⁷⁹ to lend some support to the thesis.

Summary

In the main, the Herzberg Motivation-Hygiene model has been confirmed either totally or partially in studies outside the educational setting. Most studies critical of the Herzberg Two-Factor model have been effectively countered by Whitsett and Winslow (1967)⁷⁸ and by King (1970)⁷⁹. In addition, deviation from the original methodology, i.e., interview and/or surveys in lieu of the critical incident alternatives,

⁷⁸David Whitsett and Erik Winslow, "An Analysis of Studies Critical of the Motivation-Hygiene Theory," Personnel Psychology, 20:391-415, 1967.

⁷⁹Nathan King, "Clarification and Evaluation of the Two-Factor Theory of Job Satisfaction," Psychological Bulletin, 74:18-31, 1970.

does not adversely effect investigations of the Herzberg paradigm (French et al, 1973)⁸⁰.

Investigation of the Herzberg Two-Factor
Model in Educational Settings

Over the past several years, the research regarding the application of the Herzberg Two-Factor model in education has increased. The general format for this body of knowledge is presented from a group of educators: kindergarten through secondary teachers, college instructors and kindergarten, secondary and college administrators. With each group, studies are reported which confirm, partially confirm, or refute the Herzberg model.

The majority of the evidence supporting the Herzberg model in the educational setting has been conducted with subjects who are teachers in kindergarten through the twelfth grade. Sergiovanni (1967)⁸¹ concluded that the Herzberg two-factor model was applicable to education. Based upon the response of 71 teachers, Sergiovanni found that their satisfaction was found to be based primarily upon achievement, recognition, and responsibility; whereas interpersonal relations, supervisors, school policy and administration, and personal life were factors contributing to job dissatisfaction. The other factors tended to contribute equally to job satisfaction and dissatisfaction.

⁸⁰Earl B. French, Morton Metersky, David Thaler and Jerome Trexler, "Herzberg's Two-Factor Theory: Consistency versus Method Dependency," Personnel Psychology, 26:369-375, 1973.

⁸¹Thomas Sergiovanni, "Factors Which Effect Satisfaction and Dissatisfaction of Teachers," Journal of Educational Administration, 5:66-82, 1967.

Galloway (1985)⁸² studied the source of satisfaction and dissatisfaction of about 300 primary and intermediate New Zealand school teachers. His findings were consistent with the Herzberg Two-Factor theory of job satisfaction as well as job dissatisfaction. Khillah (1986)⁸³ found similar results with secondary school teachers at ten Seventh-Day Adventist academies. He found the three most important satisfiers to be: interpersonal relationships with the principal, interpersonal relationships with students, and interpersonal relationships with peers and other staff. On the other hand, most frequently cited dissatisfiers were: union/local conference policies, job security and interpersonal relationships with the principal.

Public school teachers in Idaho and Washington from two districts were the subjects of an inquiry conducted by Engelking (1986)⁸⁴. She found that the most important factors contributing to job satisfaction were recognition and achievement, whereas relations with students, parents and others were the most important dissatisfiers. Similarly Weiss (1987)⁸⁵, which focusing upon the perception of high

⁸²David Galloway, "Sources of Satisfaction and Dissatisfaction for New Zealand Primary School Teachers," Educational Research, 27:44-51, 1985.

⁸³Rudy Khillah, "Motivation of Secondary School Teachers in the Lake Union Conference of Seventh-Day Adventists Based on Herzberg's Dual-Factor Theory of Job Satisfaction and Motivation," Unpublished Doctoral dissertation, Andrews University, 1986.

⁸⁴Jerri Lee Engelking, "Identification of Satisfying and Dissatisfying Factors in Staffs of Elementary and Secondary Schools from Two States," Unpublished Doctoral dissertation, University of Idaho, 1986.

⁸⁵Dawn Stone Weiss, "The Relationship of Selected High School Teacher Variables and Attitudes Toward the Associate Master Teacher Endorsement," Unpublished Doctoral dissertation, University of Miami, 1987.

school teachers in Dade County, found evidence to supporting the Herzberg Dual-Factor position.

Regarding instructors at the college level, support for the Herzberg hypothesis is available. For faculty at two predominately black institutions of higher education, Diener (1985)⁸⁶ identified the primary satisfiers--the nature of the work itself--and the primary dissatisfiers--the work environment. For almost 1100 college faculty at 20 college and university campuses, Hill (1987)⁸⁷ found that intrinsic factors contribute most to job satisfaction.

As with the previous study, the Herzberg thesis was generally verified by Groseth (1978)⁸⁸ for a sample of student affairs administrators. The motivators tended to be recognition, achievement and the work itself, while most frequently cited hygienes were company policy and administration, interpersonal relations, and working conditions. It should be noted that interpersonal relations was mentioned nearly as often as a satisfier as a dissatisfier. Based upon the unique job environment, Groseth believed that interpersonal relations was a factor in all situations.

⁸⁶Thomas Diener, "Job Satisfaction and College Faculty in Two Predominately Black Institutions," Journal of Negro Education, 54:558-565, 1985.

⁸⁷Malcolm Hill, "A Theoretical Analysis of Faculty Job Satisfaction/Dissatisfaction," Educational Research Quarterly, 10:36-44, 1987.

⁸⁸Rolf S. Groseth, "An Investigation of the Motivator-Hygiene Theory of Job Satisfaction Among Selected Student Affairs Administrators," Unpublished Doctoral dissertation, University of Florida, 1978.

Only partial support for the two-factor model was found by Hebert (1983)⁸⁹ who investigated the apperception of special education teachers. Three motivational factors were mentioned by teachers, but only achievement and recognition operated as motivators. Responsibility more closely resembled a hygiene variable. Regarding technical supervision and interpersonal relationships--hygiene variables-- these were cited almost as frequently as job satisfiers as dissatisfiers.

Nias (1981)⁹⁰ conducted a study to verify the Herzberg model, but the findings, as with the above inquiry resulted in only partial confirmation per an analysis of the interviews of 99 British teachers. While the work itself was found as a satisfier, it was almost as frequently cited as a dissatisfier. In the main, dissatisfaction was low, but the perceived lack of satisfaction was high. In a similar vein, Medved (1982)⁹¹ concluded that factors leading to teacher satisfactions are also the most often cause of teacher dissatisfactions if they are absent.

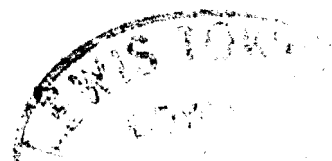
Farr (1985)⁹², when investigating the issue of merit pay, found that merit pay was most attractive as a motivator to top level administrators and least attractive to teachers.

⁸⁹Op. Cit., "A Study of Effective and Ineffective Behavior in Special Education," Unpublished Doctoral dissertation, Loyola University of Chicago, 1983.

⁹⁰Jennifer Nias, "Teacher Satisfaction and Dissatisfaction: Herzberg's Two-Factor Hypothesis Revisited," British Journal of Sociology of Education, 2-3:235-246, 1981.

⁹¹James A. Medved, "The Application of Herzberg's Motivation-Hygiene," Educational Leadership, 39:555, 1982.

⁹²Linda Farr, "Merit Pay and Motivators: A Focus on Administrators and Teachers," Unpublished Doctoral dissertation, Wayne University, 1985.



For special education administrators, Allison (1985)⁹³ noted that motivators were significantly greater indicators of job satisfaction. However, hygienes nor motivators were significant indicators of job satisfaction.

The distinction between research which partially verifies that which does not confirm the Herzberg model is most difficult to draw. Ratliff (1985)⁹⁴ found no significant difference in 24 or 25 null hypothesis in his "Work Motivation Inventory." Virtual non-support was found when Hammer (1970)⁹⁵ investigated the factors associated with job satisfaction of special education and of regular classroom teachers. In the main, the Herzberg variables, growth and advancement, and two hygiene variables, supervision and job security, followed the projected trends. All other factors contributed to job satisfaction and job dissatisfaction.

Young and Jones (1983)⁹⁶ investigated the perceptions of 72 public school administrators. No evidence was found to support the

⁹³Terry Eugene Allison, Herzberg Factors in the Job Satisfaction/Dissatisfaction of Selected Special Education Supervisors: Preference, Influence, and Prevelance, Completed Doctoral dissertation, Temple University, 1985.

⁹⁴Jimmy Dale Ratliff, "Professional Negotiations and Perceived Need Definitions of Secondary Teachers in Tennessee," Unpublished Doctoral dissertation, East Tennessee State University, 1985.

⁹⁵Robert E. Hammer, "Job Satisfaction of Special Class Teachers in Iowa: An Application of the Herzberg Two-Factor Theory," Unpublished Doctoral dissertation, University of Iowa, 1970.

⁹⁶J. Phillip Young and Bobby Jones, "The Applicability of Herzberg's Dual Factor Theory(ies) for Public School Superintendents," Journal of Research and Development in Education, 16:59-66, 1983.

Herzberg model. In fact, the researchers suggested that the dual factor model should be collapsed into a bi-polar approach of satisfaction-dissatisfaction. Gouln (1987)⁹⁷, after investigating the perception of public elementary school principals in Arkansas, found that the motivators and the hygiene factors do not separate sets of variables which contribute to job satisfaction and to job dissatisfaction.

Summary

While not all Herzberg related studies in the field of education have supported the model, most of the research either confirms or at least partially supports the use of the dual factor model in a wide variety of applications in the pedagogy. It is evident from the studies that the motivators and hygiene variations found to be significant were at variance from environment to environment. While the satisfiers and dissatisfiers were not constant, sufficient evidence is available to draw the conclusion that in the main, the dual factor model as proposed by Herzberg is a most acceptable alternative to philosophic grounded inquiry.

⁹⁷Marvin Wayne Gouln, "Relationship Between Demographic Characteristics and Job Satisfaction Variables Based Upon Perception of Selected Arkansas Public School Elementary Principals," Unpublished Doctoral dissertation, Memphis State University, 1987.

Chapter III

Methods and Procedures

The research method used in this study is now presented. The application of the critical incident technique and its interface to the Herzberg two-factor model are detailed. The procedure for conducting the study and the method of data analysis are also set forth.

Subjects

The subjects for this study were 168 coaches from the South Inter-Conference Association in Northeastern Illinois; i.e., a south suburban group of 33 high schools with the following boundaries: Argo - North, Lansing - East, Kankakee - South, and Joliet - West. The student population at these selected institutions range from student population low of approximately 900 to a high of approximately 3200. The subjects requested to participate in this study were coaches for boys football, basketball, and baseball and coaches for girls volleyball, basketball and track. No significance was given to the type of sport, i.e., boys/girls or football/basketball, etc.

Collection of Data

To obtain information from the coaches, a questionnaire was utilized.

Questionnaire

The research instrument was divided into three parts (see Appendix E). Each coach was asked to provide the following information:

Part 1: The satisfying coaching experience section of the survey composed of five items. First, the coaches were requested to relate that incident which was the most satisfying in their coaching career in enough detail for someone who was not there to understand. Next, they were asked to relate how they felt after this most satisfying experience. Then their perception about the incident having a more positive attitudinal effect upon their coaching was elicited. If their response was affirmative, the duration of this experience, question 4, and the strength of the positive attitude, question 5, were elicited.

Part 2: The least satisfying coaching experience, was also comprised of five items. First, the coaches were asked to detail that incident which was the least satisfying incident in their coaching career in sufficient detail for someone not at the event to understand the circumstances. Next, they were requested to relate how they felt after this least satisfying experience. The third request concerned whether the experience had a more negative attitudinal effect upon their coaching. If yes, two additional items were to be answered. These were the duration and the strengths of this negative incident upon their coaching.

Part 3: Five additional items were asked of the coaches. These demographic questions were in regard to their: tenure status, years of coaching, school system formal coaching evaluation system, win/loss coaching percentage, and salary paid for coaching.

Pilot Study

The instrument was validated by being administered to 13 head coaches at three randomly selected high schools in the athletic conference district area. Afterwards, each coach was interviewed. They felt that the questions were germane to their coaching experience and were presented in a format which facilitated their responding.

After the intent of the study was explained to the coaches, they had no suggestions to be added to the survey.

Critical Incident Technique

Flanagan's (1954)⁹⁸ Critical Incident Technique has been demonstrated to be a useful approach in the gathering of descriptive data. The critical incident technique was selected for this study because it provides a format for collecting examples of satisfying and dissatisfying behaviors. Flanagan emphasized that the critical incident technique does not consist of a single rigid set of rules governing data collection. Rather, it should be thought of as a flexible set of principles which must be modified and adapted to meet the specific situation at hand.

Flanagan offers five guidelines for implementing the critical technique:

⁹⁸ J. C. Flanagan, "The Critical Incident Technique," Psychological Bulletin, 51:327-358, 1954.

1. Statement of General Aim: Flanagan stresses the importance of including a brief statement of the objective of the study to the participants.
2. Plans and Specifications for Observation: Flanagan instructs the researcher to be very clear in the instructions to the participants as to "who" and "what" they are to observe.
3. Collecting the Data: A variety of methods are suggested for collection of the data. Interviews, mailed questionnaires, direct observation, and combinations of the above have proven successful. Mailed questionnaires were used for this study.
4. Analysis of the Data: Behaviors obtained from the data are classified within an appropriate categorization scheme. In selecting the classification system, the principal consideration should be the use that is to be made of the data. The classification can be ascertained inductively from the data as an established classification scheme can be applied to the data.
5. Interpreting and Reporting: In interpreting the results, the researcher needs to avoid faulty generalization while simultaneously emphasizing the value of this qualitative data.

Motivation-Hygiene Theory

Herzberg's motivation-hygiene theory was selected as the classification system for the supervisory behavior on the basis of its compatibility with the nature and purpose of the investigation. This theory delineates factors associated with employees' reports of satisfying and dissatisfying experience on the job. The following is a

general description of each factor as outlined by Herzberg et al in their original study.

First-Level Factors

Descriptions of concrete events or situations reported by the respondents. Objective element of the situation in which the respondent finds a source for his good or bad feelings about the job.

Recognition: Some act of notice, praise or blame is involved. Major criterion was an act of recognition. Also includes negative recognition, i.e., criticism or blame.

Achievement: Stories involving some specifically mentioned success, e.g., successful completion of a job, solutions to problems, vindication, seeing the results of one's work.

Advancement: Actual change in the status or position of the person within the company (school).

Responsibility: Person reported that he/she derived satisfacton from being given responsibility for his/her own work or for the work of others or being given new responsibility. Also includes stories in which there was a loss of satisfaction stemming from a lack of responsibility.

Work Itself: Respondent mentioned the actual doing of the job or the tasks of the job as a source of good or bad feelings.

Salary: Sequences of events in which compensation plays a role.

Possibility of Growth: Respondent reported changes in his/her situation involving objective evidence that the possibilities for his/her growth were now increased or decreased. Also includes situations where respondent is able to learn new skills in order to grow professionally.

Interpersonal Relations: Stories which emphasized the characteristics of the interaction between two persons. Mention of friendly or unfriendly relations or a willingness or lack of willingness to listen to suggestions.

Technical Supervision: Technical competence or incompetence of the supervisor would be classified in this category.

Company Policy and Administration: Some over-all aspect of the company (school) is involved. Instances where lines of communication or personnel policies, inadequate organization or management are involved are placed in this category.

Working Conditions: Stories in which the physical conditions of work, the amount of work or the facilities available for doing the work were mentioned.

Factors in Personal Life: Stories in this category noted that some aspect of the job affected personal life in such a way that the effect was a factor in the respondent's feelings about his job.

Status: Respondent mentioned some sign or appurtenance of status as being a factor in his feelings about his job.

Job Security: Objective signs of presence or absence of job security, e.g., tenure or company stability.

Second-Level Factors

Factors derived from the respondent's perceptions of each reported incident. Second-level factors provide categories for the respondent's answers to probe questions about his reasons for feeling as he did about the incident.

Recognition: Feeling of recognition or failure to obtain recognition.

Achievement: Feeling of achievement or failure.

Advancement: Feeling of advancement or demotion derived from changes in job situation.

Responsibility: Feeling of responsibility, lack of responsibility, or diminished responsibility.

Work Itself: Feeling of interest or lack of interest in the performance of the job.

Possible Growth: Feeling of possible growth or block to growth or first-level factor perceived as evidence of growth.

Group Feeling: Feeling of belonging or isolation, socio-technical or purely social.

Status: Feeling of increased or decreased status.

Security: Feeling of increased or decreased security.

Salary: Feelings about salary as source of improvement or well-being.

Pride/Shame: Feeling of pride, inadequacy, shame or guilt.

Fairness/Unfairness: First-level factor perceived as fair or unfair.

Research Questions

The following research questions were investigated in this study:

1. Is there a relationship between type of coaching experience (positive/negative) and Herzberg factors?
2. For positive coaching experience, is there a relationship between Herzberg factors and attitude toward coaching?
3. For positive coaching experience, is there a relationship between Herzberg factors and the duration of the positive attitude toward coaching?
4. For positive coaching experiences, is there a relationship between Herzberg factors and the strength of the positive attitude toward coaching?
5. For positive coaching experiences, is there a relationship between the duration of the positive attitude toward coaching and the strength of the positive attitude toward coaching?
6. For positive coaching experiences, is there a relationship between Herzberg factors and the coach's tenure status?
7. For positive coaching experiences, is there a relationship between Herzberg factors and the length of the coach's experience?

8. For positive coaching experiences, is there a relationship between Herzberg factors and formal evaluation of the coach?
9. For positive coaching experiences, is there a relationship between Herzberg factors and win/loss percentage?
10. For positive coaching experiences, is there a relationship between Herzberg factors and salary paid for coaching?
11. For negative coaching experiences, is there a relationship between Herzberg factors and attitude toward coaching?
12. For negative coaching experiences, is there a relationship between Herzberg factors and the duration of the negative attitude toward coaching?
13. For negative coaching experiences, is there a relationship between Herzberg factors and the strength of the negative attitude toward coaching?
14. For negative coaching experiences, is there a relationship between the duration of the negative attitude toward coaching and the strength of the negative attitude toward coaching?
15. For negative coaching experiences, is there a relationship between Herzberg factors and the coach's tenure status?
16. For negative coaching experiences, is there a relationship between Herzberg factors and the length of the coach's experience?
17. For negative coaching experiences, is there a relationship between Herzberg factors and a formal evaluation of the coach?
18. For negative coaching experience, is there a relationship between Herzberg factors and win/loss percentage?

19. For negative coaching experiences, is there a relationship between Herzberg factors and salary paid for coaching?

After the research questions were developed, a format was used which provided adequate space for each coach to write their responses to the questions, particularly those which required a detailed qualitative response.

A meeting was set with the eight member South Inter Conference Association Athletic Director Board of Control. At that meeting the questionnaire and purpose of the study was discussed. Unanimous approval of the Board was given to the project. At the monthly athletic directors meeting a presentation was given outlining the project, the expected process, the athletic directors responsibility, and a commitment to return to the athletic directors meeting on a future date to share the results of the project. Many questions were asked regarding the process. Time commitments by the directors and their coaches were of concern. They were quite interested in when the results might be shared. By a unanimous voice vote, the athletic directors supported the project.

Six questionnaires with detailed instructions for each coach were included in a single packet which was mailed to each school athletic director. Each athletic director received a detailed set of instructions which requested that all the questionnaires be distributed and returned in the prescribed time frame. Phone calls to each athletic director were made to establish a time frame to secure the materials. Follow-up phone calls were made to those athletic directors who were not in receipt of the materials at the time of the first telephone call. A courier was sent to each of the high schools to pick up the materials. This process resulted in a seventy-one percent return of the materials.

Analysis of Data

Two independent evaluators reviewed the positive and negative coaching experiences from two frames of reference: first-level Herzberg factor for the description of the event and second-level Herzberg factors for the attitudinal dimension. They were to assign the event to only one Herzberg factor. The following is a summary of their decisions.

TABLE 2

Percentage of Agreement Between Independent Evaluations of the
Critical Incidents

<u>Incident by Factor</u>	<u>Percent</u>
Positive First-Level Herzberg Factor	99
Positive Second-Level Herzberg Factor	93
Negative First-Level Herzberg Factor	88
Negative Second-Level Herzberg Factor	86

The independent experts were consistent in their classification of the events into the Herzberg categories. Regarding the first-level factors, the disagreements were among achievement, responsibility, and interpersonal relationships. For second-level factor disagreements, the Herzberg factors were tied to: achievement, responsibility, group feeling and pride.

All disagreements were resolved by a third independent evaluator. There was no systematic bias in this resolution. In 57 percent of the cases, the third evaluator agreed with the classification of initial evaluators. Thus, positive and negative events and supportive attitudes each were classified as one Herzberg first or second level factors.

To assess the significance of relationships between data, the chi square statistic was utilized. Popham (1975)⁹⁹ describes the chi square test as one of the most serviceable analyses used by statisticians. This technique can be employed to contrast two or more groups with respect to nominal classification data. The chi square test can be used to test whether significant differences exist between an observed number falling into each category and an expected number for that same category.

In order to determine the observed frequency, a frequency tabulation was derived for each of the variables being examined. In order to determine the expected frequency, the rows and columns of frequency cells were sub-totaled. The proportion of row (where the individual cell is located) sub-total to overall total is multiplied by the column sub-total. This computation is repeated to obtain the expected frequency for each cell.

The observed and expected frequencies were placed in the appropriate frequency cells for each of the research questions. The appropriate chi square test was then applied:

$$x^2 = \frac{(\text{Observed Frequency} - \text{Expected Frequency} - 0.5)^2}{\text{Expected Frequency}}$$

⁹⁹W. James Popham and Kenneth A. Sirotnik, "Educational Statistics: Use and Interpretations," New York: Harper & Row Publishing, p.248, 1975.

For a 2x2 contingency table where there is one degree of freedom ($df=1$), Yates' correction for continuity must be employed (-0.5). To use this correction, a value of 0.5 is subtracted from the absolute value of the numerator contribution of each cell to the chi square formula.

The obtained value of chi square was then compared to the table of probability values based on the chi square distribution. If the obtained value of chi square exceeded the critical value indicated for one degree of freedom at the 0.05 level of probability, then it can be assumed that a statistically significant difference exists between the observed and expected frequencies for the categories in question. If the obtained value of chi square is less than the critical value indicated, then it can be assumed that no statistically significant difference exists between the observed and expected frequencies.

Summary

A three-part questionnaire was developed. John Flanagan's critical incident technique was used in the first and second parts of the questionnaire. Coaches were asked about their most satisfying and least satisfying coaching experiences. The third part of the questionnaire asked for demographic information. The questionnaire was piloted using 13 coaches and no changes were made after the pilot study. The questionnaire was completed and returned by 71% of the 168 coaches who were surveyed. Using Frederick Herzberg's Motivation-Hygiene Theory, the responses of the coaches were categorized. The 19 research questions that were developed were analyzed using the chi square statistic to assess the significance of the relationships between the data.

Chapter IV

Presentation and Analysis of Data

The information elicited from the surveys are presented and analyzed in this chapter. The methods followed were those detailed in Chapter III. This chapter is organized into the following sections:

Motivation/Hygiene Factors

An analysis of the frequency of occurrence of the Herzberg first and second level motivation/hygiene factors for positive and negative incidents in the coaches' career is presented.

Research Questions

The research questions investigated in this inquiry are presented, with a summary of each statistical decision cited. The foregoing is followed by a complete statistical analysis of the data, including a detailed discussion.

Motivation/Hygiene Factor

First-Level Factors

The subjects were requested to reflect upon their past and current experiences and to think of that incident that has been the most satisfying. They were requested to relate this incident in sufficient

detail so that someone who did not witness the event could understand the circumstances.

These detailed descriptions were reviewed per the criteria of the Herzberg first-level factors. Each incident was classified as being most representative of one of the Herzberg first-level theme. A summary of this is set forth in Table 3.

TABLE 3

Descriptive Summary of Occurrence of the Herzberg
First-Level Factors for Positive Coaching Experiences

Theme	Frequency	Percent
Recognition	25	19.5
Achievement	92	71.9
Work Itself	7	5.5
Interpersonal Relationship	4	3.1

Only four first-level factors were found in the incidents describing the most satisfying experience in the coaches' careers. Of these, only one - inter-personal relationship - was a hygiene theme and it accounted for only 3.1 percent of the cases. This concordance with the Herzberg model was found in that 96.9% of the cases had motivational themes.

Three motivational factors were recognition, achievement and work itself. The last was minor in comparison to recognition and achievement which had percentages of 19.5 and 71.9 respectively. Achievement was present over 3.1 times as often as recognition.

In addition to their most positive coaching, the participants were asked to reflect upon their past and current coaching experience and to think of that incident that has been the least satisfying. They were requested to relate this incident in sufficient detail so that someone who did not witness the event could understand its circumstances.

These detailed descriptions were reviewed per the criteria of the Herzberg first-level themes. A summary of this is presented in Table 4.

TABLE 4

Descriptive Summary of the Occurrence of Herzberg
First-Level Factors for Negative Coaching Experiences

Theme	Frequency	Percent
Recognition	21	17.6
Achievement	62	52.1
Responsibility	5	4.2
Work Itself	2	1.7
Interpersonal Relationship	5	4.2
Policy	19	16.0
Personal Life	5	4.2

Seven first-level factors were identified, motivational accounting for 75.6 percent of the accounts, and three hygiene accounting for 24.4 percent of the cases. The primary themes were: achievement, a motivational factor, accounting for 17.6 percent of the incidents, and policy, a hygiene factor 16.0 percent of the accounts. The following were first-level Herzberg factors weakly associated with negative coaching experience: the motivational factors of responsibility and work itself, and the hygiene factors of interpersonal relationship and personal life.

In contrast with confirmation of the Herzberg Two-Factor with positive coaching experiences, the model was not consistent with the empirical data for negative coaching experience. The Herzberg Motivation-Hygiene Theory was not confirmed because: (1) the sum of the hygiene factors (24.4%) was less than the total associated with the motivation (75.6%) for job dissatisfiers, (2) each hygiene did not contribute more to job dissatisfaction than did each motivation. The exceptions were recognition and achievement.

In summary, the Herzberg Model was confirmed for the first-level factors when the positive coaching experiences were involved. The opposite was the case when the negative coaching experiences were scrutinized. In the main, for both sets of circumstances, the dominant Herzberg factor was achievement with the next germane being recognition. These motivators accounted for over 90 percent of the incidents describing the positive coaching experiences and about 80 percent of the accounts describing the negative coaching experiences. The other germane factor for the negative coaching experiences was policy - a hygiene factor - which accounted for about one-sixth of the cases.

Possibly because coaching involves a measurable means of determining achievement, i.e., won/loss record, points scored, championships, etc., the Herzberg achievement factor seems to dominate. Other aspects of an educator/coach profession do not seem to be as measurable. This may be a factor why coaches refer to the Herzberg motivation factor of achievement for both positive and negative experiences.

Second-Level Factors

After the subjects had detailed their most positive coaching experience, they were immediately presented with the issue of relating how they felt after this most satisfying experience. These descriptions were assessed per the criteria of the second-level factors. Each incident was classified as being most representative of one Herzberg second-level theme. A summary of this process is given in Table 5.

TABLE 5

Descriptive Summary of Occurrence of the Herzberg
Second-Level Factors for Positive Coaching Experiences

Theme	Frequency	Percent
Recognition	13	10.1
Achievement	24	18.8
Responsibility	5	3.9
Work Itself	2	1.6
Group Feeling	7	5.5
Security	2	1.6
Pride	79	54.6
Fairness	5	3.9

Eight second-level factors were evident. Four were motivational and the others were hygienes. Regarding the hygienes, pride was the main factor accounting for over 54 percent of the experiences. In comparison, the relatively fewer hygiene factors were group feeling (6 percent), fairness (4 percent), and security (2 percent).

Turning to motivation, the rank order of their presence was as follows: achievement (19 percent), recognition (10 percent), responsibility (4 percent) and work itself (2 percent). Thus, the primary motivators are achievement and recognition.

It is most interesting to note that the sum of the hygiene variables was almost twice that of the motivation variables. Two motivation variables had higher percentage of occurrence than those of the hygienic variables.

It is also interesting to note that achievement was the highest percentage variable for motivators and pride/shame was the highest for hygienes. A relationship between achievement, to complete a job successfully, (or to fail to do a job adequately); and pride, a feeling of self-worth, or shame, a feeling of embarrassment or inadequacy, may be present in the professional field of coaching. Again, as an educator/coach, coaching, unlike the teaching aspect of the profession, may be more measurable and therefore the feelings of pride/shame more intense.

In a similar process, the coaches were questioned how they felt immediately after responding to the item regarding the description of their most negative experiences. Each description was compared to the standards set forth as Herzberg second-level factors. A summary of the results of the matching process is detailed in Table 6.

TABLE 6

Descriptive Summary of the Occurrence of Herzberg
Second-Level Factors for Negative Coaching Experiences

Theme	Frequency	Percent
Recognition	9	7.6
Achievement	7	5.9
Work Itself	4	3.4
Group Feeling	4	3.4
Pride/Shame	67	56.2
Fairness/Unfairness	28	23.5

Six second-level factors were identified: three motivational and three hygienic. The former accounted for 16.9 percent of the cases, whereas the latter was associated with the rest of the incidents. The primary hygienic variables were shame (pride), 56.2 percent, and unfairness (fairness), 23.5 percent. In comparison, the other hygienic factor and the three motivators were minor factors.

In summary, pride/shame was the most frequent Herzberg second-level factor identified. Pride was evident in 55 percent of the positive experiences, whereas shame was found in 56 percent of the negative incidents. For negative incidents, the other important factor was unfairness, but two germane additional factors were recognition and achievement in positive cases.

In undertaking this project, this researcher attempted to review as many variables as possible regarding those individuals who coach. There has been a disturbing trend in high school coaching which required some study. This trend is a continuing decline in the number of on-site, fully employed teachers who are also employed as coaches. In the 1978-79 school year the Illinois High School Association, the governing body which legislates and directs the athletic and activity programs of the state allowed, for the first time, non-faculty coaches. This provision was instituted due to the hardship placed on athletic directors and administrators when attempting to hire faculty members to coach. In Illinois, the number of non-faculty coaches has increased dramatically from 252 in 1978-79 to 1,387 in 1986-87. It is expected that this number will continue to increase. This trend is seen as disturbing to many because the relationship of classroom curriculum and co-curricular activities seems to be weakened when non-faculty members are in charge of the co-curricular program. There are many reasons that fewer faculty members are coaches. Due to declining enrollment, fewer teachers are needed and due to seniority provisions, the older staff members remain while fewer new teachers are hired or retained. Historically, the younger teacher accepted more extra-curricular assignments than the more experienced staff member. The more experienced teacher may need less money, which could be earned by accepting extra-curricular assignments, because they have moved to a higher level on the salary schedule. The more experienced teacher may have more time commitments with their family. They may want to be part of the co-curricular program of their own children. They may simply feel that it is another "turn" to take on the added responsibility. As

referred to earlier, fewer new teachers are being hired or retained to meet these needs in extra-curricular vacancies. This study may shed some light on those factors which keep teachers in the coaching profession or drive them away.

The following research questions attempt to look at the variables in the coaching profession which might indicate what factors contribute to satisfaction or dissatisfaction. If athletic directors and administrators are cognizant of those factors, they may be able to develop strategies to retain their presently employed coaches, rehire coaches who have left the profession, and recruit others to take on the added responsibility of coaching. Refer to Table 7 for a listing of the 19 research questions and a summary statistical analysis of each question. This includes chi square value and significance/level of probability.

Research

The chi square test is one of the most widely used tests in social statistics. It is a non-parametric procedure. The chi-square test answers the following question: Does the observed frequency distribution conform to a specified theoretical distribution? This type of statistical procedure is primarily concerned with answering questions in a "yes or no" manner. It assists in determining whether a sample distribution differs significantly from a normal distribution. Has the sample collection been distorted by the play of chance, or does it differ significantly from a normal distribution? Using the sample mean and standard derivation, and by referring to the standard normal tables,

a statistician can determine a theoretical normal distribution. When an observed frequency distribution is obtained and matched to the theoretical frequency distribution, a chi-square test can be used. Using the number from both the theoretical and observed frequencies, a number will be calculated. This number is a nonparametric statistic, which is called the sample chi-square. The hypothesis that is used assumes that the observed distribution came from a normally distributed population. This hypothesis is accepted if the sample chi-square is less than some specified number. It is rejected if the same chi-square is greater than the specified number according to Bernstein.¹⁰⁰

¹⁰⁰ Leonard A. Bernstein, Statistics for the Executive, New York: Hawthorne Books, Inc., p. 98, 1970.

TABLE 7

Statistical Significance of Responses to Research Questions

Research Questions	Value of Chi Square	Significance/ Level of Probability
1. Is there a relationship between the type of coaching experience (positive/negative) and the Herzberg factors?	17.35	.01
2. For positive coaching experiences, is there a relationship between Herzberg factors and attitude toward coaching?	0.55	N.S.
3. For positive coaching experiences, is there a relationship between Herzberg factors and the duration of the positive attitude toward coaching?	0.13	N.S.
4. For positive coaching experiences, is there a relationship between Herzberg factors and the strength of the positive attitude toward coaching?	0.72	N.S.
5. For positive coaching experiences, is there a relationship between the duration of the positive attitude toward coaching and the strength of the positive attitude toward coaching?	2.02	N.S.

TABLE 7 (Cont'd)

Statistical Significance of Responses to Research Questions

Research Questions	Value of Chi Square	Significance/ Level of Probability
6. For positive coaching experiences, is there a relationship between Herzberg factors and the coaches' tenure status?	1.79	N.S.
7. For positive coaching experiences, is there a relationship between Herzberg factors and the length of the coaches' experience?	1.27	N.S.
8. For positive coaching experiences, is there a relationship between Herzberg factors and formal evaluation?	0.02	N.S.
9. For positive coaching experiences, is there a relationship between Herzberg factors and win/loss percentage?	0.24	N.S.
10. For positive coaching experiences, is there a relationship between Herzberg factors and salary paid for coaching?	0.10	N.S.
11. For negative coaching experiences, is there a relationship between Herzberg factors and attitude toward coaching?	1.37	N.S.

TABLE 7 (Cont'd)

Statistical Significance of Responses to Research Questions

Research Questions	Value of Chi Square	Significance/ Level of Probability
12. For negative coaching experiences, is there a relationship between Herzberg factors and the duration of the negative attitude toward coaching?	3.69	N.S.
13. For negative coaching experiences, is there a relationship between Herzberg factors and the strength of the negative attitude toward coaching?	1.42	N.S.
14. For negative coaching experiences, is there a relationship between the duration of the negative attitude toward coaching and the strength of the negative attitude toward coaching?	1.03	N.S.
15. For negative coaching experiences, is there a relationship between Herzberg factors and the coaches' tenure status?	1.80	N.S.
16. For negative coaching experiences, is there a relationship between Herzberg factors and the length of the coaches' experience?	1.24	N.S.

TABLE 7 (Cont'd)

Statistical Significance of Responses to Research Questions

Research Questions	Value of Chi Square	Significance/ Level of Probability
17. For negative coaching experiences, is there a relationship between Herzberg factors and formal evaluation?	0.50	N.S.
18. For negative coaching experiences, is there a relationship between Herzberg factors and win/loss percentage?	0.80	N.S.
19. For negative coaching experiences, is there a relationship between Herzberg factors and salary paid for coaching?	0.33	N.S.

The following key provides an explanation of the numbers appearing in the chi-square 2x2 table:

TABLE 8

Descriptive Analysis of Chi Square Table

Obtained Frequency		Expected Frequency		
↓ 124	(112.97)	↓ 94	(105.08)	218
97 → 57		79 → 43		100%
↓ 4	(15.03)	↓ 25	(13.97)	29
3 → 14		21 → 86		100%
100%		100%		247
Total N Down Column 128		Percentage Across Row 119		Total N

The same explanation is appropriate for a 2x3 table.

1. Is there a relationship between type of coaching experience (positive/negative) and Herzberg factors?

	Positive		Negative					
Motivation	↓ 97	124 → 57	(112.97)	↓ 79	94 → 43	(105.03)	100%	218
Hygiene	↓ 3	4 → 14	(15.03)	↓ 21	25 → 86	(13.97)	100%	29
	100%			100%				
	128			119				247

Chi-square value of 17.35 is statistically significant.

There is a relationship between the type of coaching experience and Herzberg factors. This was confirmed by a statistically significant chi square value.

For positive coaching experiences, 97 percent were tied to motivational factors, whereas 79 percent of the negative coaching experiences were associated with motivational incidents, 57 percent were positive, but only 14 percent of the 29 hygiene factors were positive.

Per the comparisons of actual versus the expected cell frequencies; more than expected observations were found for the motivation factors with positive coaching experiences as well as the hygiene factor with negative coaching experiences. The converse was the case for the motivation factor with negative coaching experiences and for the hygiene factor with positive coaching experience.

Herzberg's hypothesis is confirmed for those experiences described as positive. An overwhelming 97 percent of the coaches cited motivational themes when describing those incidents which were considered positive. As previously cited, 91.4 percent of those motivators were contained in two categories, achievement 71.9 percent and recognition, 19.5 percent. However, an interesting development arises when the negative experiences of coaches are reviewed.

Herzberg's hypothesis is not confirmed for those experiences described as negative. Again, an unusually high 79 percent of the negative coaching experiences are also motivational themes. Achievement, 52.1 percent and recognition, 17.6 percent make up 69.7 percent of the motivational themes in negative coaching experiences. If Herzberg's theory were to be valid in these negative coaching experiences then hygienes should have been the major themes. The hygienes accounted for only 24.4 percent of the themes of negative experiences, interpersonal relationships 4.2 percent, personal life 4.2 percent, and policy 16.0 percent. As previously noted, achievement and recognition are dominant themes when a coach describes their experiences regardless if they are positive or negative.

2. For positive coaching experiences, is there a relationship between Herzberg factors and attitude toward coaching?

	Yes		No		
Motivation	↓ 119 98	(118.19) → 94	↓ 5 83	(5.81) → 4	100% 124
	↓ 3 2	(3.81) → 75	↓ 1 17	(0.19) → 25	100% 4
	100% 122		100% 6		128

Chi square value of 0.55 is not statistically significant.

Regarding positive coaching experience, there was not a relationship between the Herzberg factor and attitudes toward coaching. This was the statistical decision per the chi square test.

Over nine-tenths of the cases, 96.0 percent, of the observations were in the motivational and affirmative response cell. Given this, there were only 9 cases distributed among the other cells. Apparently, this was an insufficient number to result in a statistically significant difference even though 96 percent of the motivational factors were associated with ensuing effects upon coaching versus 75 percent for the hygiene factor.

It may be expected that a coach, when relating a positive experience, would answer "yes" to a question on positive attitudes toward coaching. It is interesting to note the 98 percent response in the motivational themes and even though few responses were "no" (6) 83 percent (5) were motivational themes.

3. For positive coaching experiences, is there a relationship between Herzberg factors and the duration of the positive attitude coaching?

	Week or less			Months			Years			
Motivation	↓ 100	13	→ 11 (12.51)	↓ 95	21	→ 18 (21.38)	↓ 97	84	→ 82 (84.15)	100% 118
Hygiene	↓ 0	0	→ 0 (0.43)	↓ 5	1	→ 25 (0.72)	↓ 3	3	→ 75 (2.85)	100% 4
	100%	13		100%	22		100%	87		122

Chi square value of 0.13 is not statistically significant.

There was not a relationship between the Herzberg factors and the duration of the positive attitude toward coaching. This was the statistical decision per the chi square test.

Over eight-tenths, 82 percent, of the positive coaching experience lasted for years for motivational factors, and 75 percent of the hygiene factors were for the duration. The lack of hygiene factors precluded a meaning for trend analysis for duration - weeks or less, months and years.

There were thirteen responses of a week or less in the motivational theme and no responses in the week or less category for the hygiene theme. This is the reason for the 2x3 cell.

4. For positive coaching experiences, is there a relationship between Herzberg factors and the strength of the positive attitude toward coaching?

	Weakest		Strongest		
		(37.72)		(80.28)	
Motivation	↓ 39 100	→ 33	↓ 79 95	→ 67	100% 118
Hygiene	↓ 0 0	→ 0	↓ 4 5	→ 100	100% 4
	100% 39		100% 83		122

Chi square value of 0.72 is not statistically significant.

For positive coaching experiences, there was not a relationship between the Herzberg factors and the strength of the positive attitude toward coaching. The decision was reached via the chi square test.

Ninety-five percent of the responses regarding strength of attitude were in the motivational category. Seventy-nine or 67 percent of those were cited as very strong. All of the hygiene category responses were very strong. These seem to be appropriate responses considering the question relates to positive attitude and the strength of feeling regarding positive incidents.

5. For positive coaching experiences, is there a relationship between the duration of the positive attitude toward coaching and the strength of the positive attitude toward coaching?

	Month or less		Years		
	(11.19)		(27.81)		
Weakest	↓ 15 43	→ 38	↓ 24 28	→ 62	39 100%
Strongest	↓ 20 57	→ 24	↓ 63 72	→ 76	83 100%
	100%		100%		
	35		87		122

Chi square value of 2.02 is not statistically significant.

For positive coaching experiences, there was not a relationship between the duration of the positive coaching attitudes toward coaching and the strength of the positive attitude toward coaching. This statistical decision was per the chi square test.

In the main, but not statistically significant trends were: strongest feelings lasted for years and weakest feelings lasted for months or less. This accounted for 64 percent of the cases. Generally the attitudes tended to last for years, 72 percent of the cases.

Again, because the coaches are relating positive experiences, these trends may be reflective of these positive experiences. Strong feelings last longer than perceived weak feelings.

6. For positive coaching experiences, is there a relationship between Herzberg factors and the coaches' tenure status?

	Tenured		Non-Tenured			
Motivation	↓ 98	→ 87	↓ 89	→ 13	100%	121
	105	(103.58)	16	(17.42)		
Hygiene	↓ 2	→ 50	↓ 11	→ 50	100%	4
	2	(3.42)	2	(0.58)		
	100%	107	100%	18		125

Chi square value of 1.79 is not statistically significant.

For positive coaching experiences, there was not a relationship between the Herzberg factors and the coaches' tenure status. This was the statistical decision by use of the chi square procedure.

Most coaches, almost 86 percent, were tenured. Both tenured coaches and their non-tenured peers tended to cite motivational factors, 98 and 89 percent respectively. Both the tenured and non-tenured coaches overwhelmingly chose a motivational theme. There were only four cases of 125 respondents who related hygiene themes. There seems to be no relationship to Herzberg's theory and the tenure status of coaches. The lack of hygiene factors may well have contributed to the decision for the research question.

7. For positive coaching experiences, is there a relationship between Herzberg factors and the length of the coaches' tenure?

	1 to 5 years	6 to 10 years	11 or more years	
	(12.58)	(33.88)	(74.54)	
Motivation	↓ 100 13 → 11	↓ 94 33 → 27	↓ 97 75 → 62	121 100%
Hygiene	↓ 0 0 → 0	↓ 6 2 → 50	↓ 3 2 → 50	4 100%
	100% 13	100% 35	100% 77	125

Chi square value of 1.27 is not statistically significant.

For positive coaching experiences, there was not a relationship between the Herzberg factors and the length of the coaches' tenure. This was per the chi square test.

Most coaches, 62 percent held their positions for 11 or more years, and 29 percent were in their position for 6 to 11 years. It is interesting to note that only 4 cases of 125 refer to a hygiene theme. It seems once again that there is a strong relationship between positive coaching experiences and the Herzberg motivators achievement and recognition, while the relationship of the Herzberg theory and tenure status did not show a significant relationship.

8. For positive coaching experiences, is there a relationship between Herzberg factors and a formal evaluation of the coaches?

	Formal		Informal		
Motivation	↓	102	↓	18	120
	97	→ 85	95	→ 15	
		(101.67)		(18.39)	100%
Hygiene	↓	3	↓	1	4
	3	→ 75	5	→ 25	
		(3.39)		(0.61)	100%
	100%	105	100%	19	124

Chi square value of 0.02 is not statistically significant.

For positive coaching experiences, there was not a relationship between Herzberg factors and a formal evaluation of the coaches. The chi square value of almost zero attested to the foregoing.

Formal evaluation systems and informal evaluation systems were closely tied to Herzberg motivation factors; i.e., 97 percent and 95 percent respectively. Most motivation and hygiene factors were tied to a formal evaluation system - 85 and 75 percent respectively. Almost 85 percent of the coaches were evaluated per a formal mechanism.

The lack of response in the hygiene category is noteworthy. One might expect more comments regarding company policy and administration, interpersonal relations, job security, or working conditions. The lack of response in these areas may again be related to the question regarding positive coaching experience.

9. For positive coaching experiences, is there a relationship between Herzberg factors and win/loss percentage?

Less than 50 percent 50 percent or more

	(31.93)		(87.07)		
Motivation	↓ 31	→	↓ 88	→	100% 119
	94	22	98	78	
	(1.07)		(2.93)		
Hygiene	↓ 2	→	↓ 2	→	100% 4
	6	50	2	50	
	100%		100%		
	33		90		123

Chi square value of 0.24 is not statistically significant.

For positive coaching experiences, there was not a relationship between Herzberg factors and win/loss percentages. This was the statistical decision per the chi square test.

Almost three-fourths, 73 percent, of the coaches had winning career records. For this group, 98 percent reported a motivational factor, with the comparative value of 94 percent for coaches losing more than they won. Motivational factors once again are dominant regardless of the won/loss record of the coaches surveyed. A pattern of achievement and recognition in both the positive and negative experience, along with the fact this question asks about positive experiences may explain this phenomena.

It seems that achievement and recognition do not essentially mean the same as a high win versus loss percentage record. Regardless of the win versus loss percentage of the coach, the motivators of achievement and recognition were cited by the overwhelming majority.

10. For positive coaching experiences, is there a relationship between Herzberg factors and salary for coaching?

	\$2000 or less		Over \$2000			
Motivation	↓ 31	(30.26)	↓ 91	(91.74)	100%	122
	→ 26		→ 75			
Hygiene	↓ 0	(0.74)	↓ 4	(3.26)	100%	4
	→ 0		→ 100			
	100%		100%			
	31		95			126

Chi square value of 0.10 is not statistically significant.

For positive coaching experiences, there was not a relationship between Herzberg factors and salary for coaching. This was affirmed by the chi square test.

Seventy-five percent of the coaches were paid over \$2000 for their coaching. It is interesting to note that not a single coach who was paid a salary of \$2000 or less used a hygiene theme in their response to the question. Only four of 126 responded with a hygiene theme.

11. For negative coaching experiences, is there a relationship between Herzberg factors and attitude toward coaching?

	Yes		No		
Motivation	↓ 46	(49.03)	↓ 32	(28.97)	100% 78
	→ 59		→ 41		
Hygiene	↓ 20	(16.97)	↓ 7	(10.03)	100% 27
	→ 74		→ 26		
	100%		100%		
	66		39		105

Chi square value of 1.37 is not statistically significant.

For negative coaching experiences, there was not a relationship, per the chi square test, between Herzberg factors and attitude toward coaching. For the motivation factors, 59 percent of the responders indicated that the negative experience had an effect upon their attitudes toward coaching. The statistic was 74 percent for the hygiene dimension.

Most coaches, 63 percent, believed their negative coaching experiences affected their attitudes toward coaching. About three-fifths of these experiences were tied to motivational themes, whereas slightly more of the coaches who believed that their negative experiences affected their attitude toward coaching reported a hygiene

factor. The results of this question clearly points to the discrepancy of the coaches' responses to their negative experiences and the Herzberg two-factor theory. The coaches' responses were much greater in the motivational theme than the hygiene. A comparison of this question and question two, which related to positive coaching experiences also points to a major difference. In question eleven, negative coaching experiences, although 70 percent of the responses were in the motivation cell and only 30 percent were in the hygiene cell, this is much lower than the 98 percent of responses for positive coaching experience in the motivation cell and 2 percent in the hygiene cell. As previously stated, the motivational themes are strong in both the positive and negative experiences of coaches, although there are slightly less motivational themes in the negative experiences . Achievement and recognition continue to be constant themes in both types of experiences.

12. For negative coaching experiences, is there a relationship between Herzberg factors and the duration of the negative attitudes toward coaching?

	Week or less	Months	Years	
Motivation	↓ 29 (26.00) 88 → 56	↓ 14 (14.97) 74 → 27	↓ 9 (17.03) 64 → 17	52 100%
	↓ 4 (7.00) 12 → 29	↓ 5 (4.03) 26 → 36	↓ 5 (2.99) 36 → 36	14 100%
	100% 33	100% 19	100% 14	66

Chi square value of 3.69 is not statistically significant.

For negative coaching experiences, there was not a relationship between Herzberg factors and the duration of the negative attitude toward coaching. The value of chi square statistic did not warrant rejection of the null hypothesis.

The duration of one-half of the negative attitude was quite short, weeks or less. For the motivational themes, the rate was 56 percent for weeks or less versus 29 percent for individuals reporting a hygiene dimension. Conversely, the hygiene dimension of 36 percent was greater than that for motivation, 17 percent, for effects lasting years.

A comparison of this question to question three, points to the motivational theme dominance when responding to either positive or negative experience. The percentage of motivational theme response is less for negative experiences, 56 percent, than for positive experiences, 82 percent. However, the motivational themes are still the majority responses. It is interesting that coaches are less likely to maintain their negative attitude regarding a negative experience as they are to maintain a positive attitude regarding a positive experience.

13. For negative coaching experiences, is there a relationship between Herzberg factors and the strength of the negative attitude toward coaching?

	Weakest		Strongest		
		(19.70)		(32.30)	
Motivation	↓ 22	→	↓ 30	→	100% 52
	88	42	73	58	
Hygiene	↓ 3	→	↓ 11	→	100% 14
	12	21	27	79	
	100%		100%		
	25		41		66

Chi square value of 1.42 is not statistically significant.

For negative coaching experiences, there was not a relationship between Herzberg and the strength of the negative attitude toward coaching. The chi square test was used to reach this decision.

On average, strongest versus weakest attitudes were evident in a ratio of 3 to 2. For motivation, the strongest rate was 58 percent, but for hygiene, the strongest rate was 79 percent. Nevertheless, the trends did not differ significantly.

The strength of the attitude did not differ much for negative experiences when compared to positive experiences as shown in comparison to question four. However, the total responses were quite different. Only 66 coaches who described their negative experiences said that these negative experiences affected their attitudes while 122 coaches said their positive experiences affected their attitudes.

14. For negative coaching experiences, is there a relationship between the duration of the negative attitude toward coaching and the strength of the negative attitude toward coaching?

	Week or less (12.5)		Month or more (12.5)		
Weakest	↓ 45	15 → 60	↓ 30	10 → 40	100% 25
Strongest	↓ 55	18 → 44	↓ 70	23 → 56	100% 41
	100%		100%		33 66

Chi square value of 1.03 is not statistically significant.

For negative coaching experiences, there was not a relationship between the duration of the negative attitude toward coaching and the strength of the negative attitude toward coaching. This was the statistical decision reached by use of the chi square test.

On average, stronger attitudes tended to last longer, and the converse was also the case, i.e., weaker attitudes tended to last a shorter duration. This was the trend for 58 percent of the cases. It was not strong enough to be statistically significant, however.

15. For negative coaching experiences, is there a relationship between Herzberg factors and the coaches' tenure status?

	Tenured		Non-Tenured		
		(78.48)		(12.53)	
Motivation	↓ 81	→	↓ 10	→	100%
	81	89	63	11	
		(21.55)		(3.45)	
Hygiene	↓ 19	→	↓ 6	→	100%
	19	70	37	24	
	100%		100%		
	100		16		116

Chi square value of 1.80 is not statistically significant.

For negatively coaching experiences, there was not a relationship between the Herzberg factors and the coaches' tenure status. This decision was reached per the chi square test.

Most of the responders, 86 percent, were tenured. More tenured than non-tenured coaches reported a motivational incident; 81 percent versus 63 percent, respectively. Both the tenured and non-tenured coaches chose a motivational theme. There seems to be no relationship to Herzberg's theory and the tenure of coaches. The lack of hygiene factors may have contributed to the decision for the research question. This trend was not sufficient to result in a statistically significant difference.

16. For negative coaching experiences, is there a relationship between Herzberg factors and the length of the coaches' experience?

	1 to 10 years		11 or more years			
Motivation	↓ 39	(36.09)	↓ 52	(54.91)	100%	91
	85 → 43		74 → 57			
Hygiene	↓ 7	(9.81)	↓ 18	(15.09)	100%	25
	15 → 11		26 → 89			
	100%		100%			
	46		70			116

Chi square value of 1.24 is not statistically significant.

For negative coaching experiences, there was not a significant relationship between Herzberg factors and the duration of the coaches' experience. This was the conclusion based upon the cross tabulated frequency counts.

Most coaches, 60 percent, had 11 or more years of coaching experience. No coach had less than 5 years experience. Those with a longer coaching tenure related a motivational incident versus those with less experience -- 74 percent versus 85 percent, respectively. As seen in previous questions when compared to the same issue in regard to positive experiences the hygienes increase in number and percentage and yet these did not differ enough to be statistically significant.

17. For negative coaching experiences, is there a relationship between Herzberg factors and a formal evaluation of the coach?

	Formal	Informal	
	(77.59)	(12.41)	
Motivation	↓ 76 76 → 84	↓ 14 88 → 16	100% 90
Hygiene	↓ 24 24 → 92	↓ 2 12 → 8	100% 26
	100% 100	100% 16	116

Chi square value of 0.50 is not statistically significant.

For negative coaching experiences, there was not a relationship between Herzberg factors and a formal evaluation of the coach. The chi square test was used to draw this inference.

It is interesting to note the sharp increase in the percentage of hygiene themes when reviewing evaluations of coaches when relating negative experiences compared to positive experiences. For negative experiences 24 percent of the experiences were in the hygiene category compared to 3 percent hygiene for positive coaching experiences.

18. For negative coaching experiences, is there a relationship between Herzberg factors and win/loss percentage?

	Less than 50 percent		50 percent or more		
Motivation	(24.26)		(65.74)		90
	↓ 22 71	→ 24	↓ 68 81	→ 76	
Hygiene	(6.74)		(18.26)		25
	↓ 9 29	→ 36	↓ 16 19	→ 64	
	100%		100%		
	31		84		115

Chi square value of 0.80 is not statistically significant.

For negative coaching experiences, there was not a relationship between Herzberg factors and a win/loss percentage. This decision was reached by the chi square test.

Most of the sample, 73 percent, had winning records. For those relating motivational incidents, 76 percent had winning records versus 64 percent for coaches conveying a hygiene incident. Even with those coaches who had less than a 50% winning record motivational factors continue to dominate. Coaches seem to be driven by the achievement motivator and recognition motivator regardless of a very measurable won/loss record. These rates were sufficiently close to preclude finding a significant difference.

19. For negative coaching experiences, is there a relationship between Herzberg factors and salary paid for coaching?

	\$2000 or less		Over \$2000		
		(15.52)		(74.48)	
Motivation	↓ 17	→	↓ 73	→	90
	85	19	76	81	100%
Hygiene	↓ 3	→	↓ 23	→	26
	15	12	24	88	100%
	100%		100%		
	20		96		116

Chi square value of 0.33 is not statistically significant.

For negative coaching experiences, there was not a relationship between Herzberg factors and salary paid for coaching. The heretofore was ascertained by the chi square test.

A total of 83 percent of the coaches were paid over \$2000 for their coaching duties. For those with motivation as well as hygiene incidents, they were paid at that rate also; i.e., 81 percent and 88 percent, respectively. This small difference was tied to the statistical decision.

Negative coaching experiences and salary are not related issues. When mentioning hygiene factors 24 percent of the coaches were in the \$2000 salary range while only 15 percent of the less than \$2000 salary range coaches mentioned hygiene factors. It is especially noteworthy that not a single coach mentioned salary in any reference to positive or negative experiences. This hygiene factor did not become an issue in this study.

Summary

The two-factor model was partially confirmed when applied to high school coaches. Support for the Herzberg model was found in that 97 percent of the first level positive incidents had motivational themes. However, motivational themes were the best descriptors of the 76 percent of the cases first level negative incidents. This did not conform to the two-factor model. Statistical analysis of the motivation-hygiene first-level themes of positive and negative coaching experiences resulted in a statistically significant chi square. This suggested that, in the main, there were more positive coaching associated with motivational themes and more negative coaching experiences associated with hygiene themes than would be expected by chance alone.

The foregoing was the only research hypothesis which was accepted. In all other testings no differences were found. Succinctly, beyond general support for the two-factor model, this study did not provide insight as to the dynamics of the heretofore. It did suggest that some avenues were not fruitful for further inquiry, however. No differences were found by the following descriptive variables of the coaches: tenure versus non-tenure status, their years of coaches' experience, the mechanism used to evaluate their performance - formal versus informal, won/loss percentage, and salary paid for coaching duties.

Chapter V

Summary, Conclusions and Recommendations

The purpose of this study was to investigate the factors which provide satisfaction and dissatisfaction in the work of high school coaches. The critical incident technique developed by John Flanagan has been used in a variety of studies including education. A logical extension of the model is the Frederick Herzberg two-factor model. Per the review of literature most studies of the Herzberg Motivation-Hygiene paradigm in education lend total or at least partial support to the dual factor thesis. The intent of this study was to extend the application of the Herzberg model to a sample of high school coaches. As per the review of related literature this is the first known study of the two-factor theory with educators who are coaches.

Specifically, the objectives of this study were:

1. to determine if there are specific, identifiable factors which provide satisfaction or dissatisfaction among high school coaches.
2. to determine the strength of feelings for both positive and negative coaching experiences and how long the coaches maintained those feelings.
3. To determine the relationship of the coaches' won/loss record, formal or informal evaluation and their satisfaction or dissatisfaction in the work place.
4. To determine the relationship of the coaches' salary and tenure status to satisfaction in the work place.

Summary

Partial support for the Herzberg Motivation-Hygiene theory was found in this study. For positive coaching experience two motivational factors, recognition and achievement accounted for over ninety percent of the descriptions of coaches. Furthermore, ninety-five percent of the incidents were associated with the two cited factors and a third motivational factor, work itself. So it can be concluded that for positive coaching experience being associated with motivational factors, this study is concordant with the Herzberg hypothesis.

However, when analyzing the responses of coaches regarding the negative experiences, the two-factor model was not supported. The motivational factors of recognition and achievement accounted for over seventy percent of the responses. When including other motivational factors, i.e., responsibility and work itself, the responses to negative coaching experiences accounted for nearly three quarters of all responses. Thus, the remaining one quarter of the incidents had hygiene themes. Interpersonal relationships and personal life accounted for approximately eight percent and policy accounted for sixteen percent. Since the hygienes accounted for only one quarter of the responses in the negative coaching experiences, it can be concluded that the Herzberg Two-Factor model was not supported.

Second-level factors were also investigated in this study. When asked for their descriptive feelings after a positive coaching experience, pride, considered a hygiene theme, accounted for over fifty percent (54.6) of the responses and achievement, considered a

motivational theme, accounted for almost twenty percent of the responses. It is difficult to determine how closely related the feelings of pride to the feelings of achievement are in the incidents described. When looking at the results of the second level factors for negative coaching experiences, pride, or its opposite shame, again account for over fifty percent (56.2) of the responses. In negative coaching responses fairness, or its opposite unfairness, account for twenty-three percent of the responses. Second level factors, when investigated for positive coaching experiences did not follow the Herzberg theory because pride is not considered related to the motivational themes. When investigating the second level factors for negative coaching experiences the Herzberg theory was in concordance with the results because pride/shame, considered a hygiene theme, was the majority response. Herzberg's Two-Factor theory was not fully supported when investigating the second level factors.

After the descriptive trends were investigated, nineteen research questions were reviewed. The first question resulted in the finding that there was a relationship between the type of coaching experience and Herzberg factors. All other questions, when investigated did not result in a significant relationship to the Herzberg factors.

The results of the investigation of the nineteen research questions were as follows:

1. Using the chi square test analysis, the comparison of the actual versus the expected observations were found for the motivational factors with positive coaching experiences as well as the hygiene factors with the negative coaching experiences. The Herzberg Two-Factor model was only

partially confirmed because achievement and recognition are dominant themes when coaches described their experiences regardless if they were positive or negative.

2. For positive coaching experiences, there is not a relationship between Herzberg factors and attitudes toward coaching.
3. For positive coaching experiences, there is not a relationship between Herzberg factors and duration of the positive attitude toward coaching.
4. For positive coaching experiences, there is not a relationship between Herzberg factors and the strength of the positive attitudes toward coaching.
5. For positive coaching experiences, there is not a relationship between the duration of the positive attitude toward coaching and the strength of the positive attitude toward coaching.
6. For positive coaching experiences, there is not a relationship between Herzberg factors and the coaches' tenure status.
7. For positive coaching experiences, there is not a relationship between Herzberg factors and the length of the coaches' experience in the profession.
8. For positive coaching experiences, there is not a relationship between Herzberg factors and a formal evaluation of the coach.

9. For positive coaching experiences, there is not a relationship between Herzberg factors and win/loss percentage.
10. For positive coaching experiences, there is not a relationship between Herzberg factors and salary paid for coaching.
11. For negative coaching experiences, there is not a relationship between Herzberg factors and attitude toward coaching.
12. For negative coaching experiences, there is not a relationship between Herzberg factors and the duration of the negative attitude toward coaching.
13. For negative coaching experiences, there is not a relationship between Herzberg factors and the strength of the negative attitude toward coaching.
14. For negative coaching experiences, there is not a relationship between the duration of the negative attitude toward coaching and the strength of the negative attitude toward coaching.
15. For negative coaching experiences, there is not a relationship between Herzberg factors and the coaches' tenure status.
16. For negative coaching experiences, there is not a relationship between Herzberg factors and the length of coaches' experience in the profession.

17. For negative coaching experiences, there is not a relationship between Herzberg factors and a formal evaluation of the coach.
18. For negative coaching experiences, there is not a relationship between Herzberg factors and win/loss percentage.
19. For negative coaching experiences, there is not a relationship between Herzberg factors and salary paid for coaching.

Conclusions

The findings of the study and the review of the literature warrant the following conclusions:

1. Regardless of the positive or negative coaching experiences, the coaches tended to cite motivational first-level factors to describe the circumstances. In rank order achievement and recognition were the two motivators most frequently cited. The described circumstances were not, in the main, a particular win or loss of a game or championship, but more often a team or individual who reached their potential. The coaches most often referred to growth, mentally and physically, of the teams and the recognition of the motivation needed for that growth. High school coaches, for the most part, although cognizant of the importance of winning, do not relate their most positive or negative coaching experience to a win or a loss.

2. When the second-level factors were investigated for feelings, pride tended to be the factor cited most often for the positive experience; shame tends to be the most frequently cited factor for negative experiences. These perceptions tended to be tied to the internalization of the experience into the psyche of the coach; i.e., pride and elation for bringing out the best when the team or individual met their potential versus shame and dejection for the converse. This suggests the possibility of a bi-polar dimension; a concept not consistent with the dual factor model.

This is particularly noteworthy in this study. It suggests there is a particular distinction between coaches and other workers who, when studied, were found to have a much closer relationship to the Herzberg Dual-Factor theory. It may be that because coaching is a part-time profession versus other full-time professions studied by others that the relationship to Herzberg's model is not as strong.

3. The distinction between motivation and hygiene factors per the two-factor model are not as clear as in the other studies in education or in other Herzberg studies. The coaches cited very few of the Herzberg fourteen motivational or hygiene factors when responding to this study. Only four of the fourteen factors were mentioned in relation to positive coaching experiences and only seven factors were mentioned in relation to negative coaching experience.

4. Coaches do not seem to be significantly affected by technical supervision or company policy and administration. As noted in this study eighty-five percent of the coaches were formally evaluated and yet none of the coaches referred to a positive or negative experience in this regard. Evaluation by athletic directors or administrators or the rules coaches must abide by in their job is not an issue. Advancement may not be an issue because those surveyed were already head coaches in their sport. However, not a single coach referred to a desire to advance to the college level or a larger high school. Status may also not be at issue because these coaches are the head of a program. Most interesting is the fact that salary and working conditions were not mentioned in the coaches' positive or negative experiences. It is well documented that coaches put in very long hours. Salaries paid to coaches are significantly less than their hourly wage for teaching. Many coaches make less than the minimum wage per hour for the amount of time coaching requires. Working conditions, with these long hours at relatively low pay seemed to not be an issue with the coaches studied.
5. There seemed to be no relative difference between coaches' tenured status, length of experience in coaching, won/loss percentage, and their feelings toward coaching. Coaching seems to be a unique profession whereby a person internalizes the experience as a positive or negative. A position is taken based upon their feelings toward that

experience. This study pointed to a restricted number of motivation and hygiene first and second level options to explain feelings of coaches as compared to the general population studied by others.

Recommendations for Action

1. When attempting to recruit or retain coaches, those in position to hire or supervise should realize that recognizing the coaches for their accomplishments not only for winning, but for taking a team or individual to their potential is very important to those in the coaching profession.
2. Increased emphasis on the educational value of a student/athlete should be realized by those associated with the coaching profession. Coaches realize the importance of doing the best according to the circumstances. Those in supervisory positions should assist the coach in educating others, i.e., students, parents, community, according to this same principle.
3. Supervisors of coaches should take steps to provide a support system for coaches during those periods when the expectations of the coach for the team and/or individual are not being met. Conferences prior to, during, and after the season should be held by those in a supervisory capacity with the coach to determine expectations and the realization or failure of those expectations.

4. Although working conditions and salary were not an issue with the coaches in this study, those who are responsible for these two factors should continue to monitor the working conditions and salary to see that they improve and, at the very least, do not fall to a level that they become a negative in the coaches' experience.
5. Inservice and clinics regarding the psychological aspects of coaching should be instituted. Presently there are numerous opportunities for coaches to receive training in the skills of their sport. Expanded opportunities for coaches in study of adolescent behavior issues should be offered.

Recommendations for Futher Study

1. Partial support for the Herzberg two-factor model was evident in this study. However, the second-level factors were not in concordance with the Herzberg theory. In fact a bi-polar dimension could be inferred by the results. Since this is the only known study involving this particular population, an additional independent study replicating this inquiry may be necessary to ascertain if the dual-factor or the unidimensional model is applicable to the coaching profession.

2. There appears to be a limited number of motivation and hygiene factors to which the coaches' incidents best fit. Possibly these should or could be subcategorized to yield a more discrete measure for further study.
3. This study focused upon perceptions of current coaches. A most interesting comparison would be among two or more of the following population: college students in physical education programs who plan to coach, coaches in their first year of the profession, experienced coaches in the profession, and ex-coaches who left the ranks by rationale of leaving. These reasons might be dissatisfaction with the profession, health, became administrators or athletic directors, etc.
4. Athletic coaching is but one aspect of the sponsorship of co-curricular activities. Non-athletic sponsors, i.e., mathletes, chess, student council, foreign language clubs, etc., are equally important to a high school's comprehensive co-curricular program. A study of these sponsors' perceptions concerning these same issues may be of value.
5. A study which includes the coaches' analyses of their primary profession, teaching, and their additionally chosen profession, coaching, might be suggested to compare and contrast their motivational and hygiene themes for each.

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APPENDIX A
LETTER OF INTRODUCTION TO THE
ATHLETIC DIRECTORS

April, 1986

Dear Athletic Director:

I am conducting a research study for a doctoral dissertation on the topic of satisfaction/motivation and high school coaches. This study is under the chairmanship of Dr. Philip Carlin, Department Chairperson of Education Administration, Loyola University, Chicago, Illinois.

The purpose of the study is to determine those factors which are satisfying/motivating to high school coaches and those factors which contribute to a lessening of satisfaction/motivation for these same coaches. I have received the support of the Athletic Board of Control for this project and have agreed to share the results with them when the project is complete. The results may prove helpful to assist in maintaining qualified, quality individuals in the coaching profession.

Within your packet is a cover letter with specific directions. The responsibility of an Athletic Director is great and the duties seemingly endless. It is with these thoughts that I appreciate your participation and thank you, in advance, for your cooperation.

Sincerely,

James E. Riordan
Associate Principal

JER:ib

APPENDIX B
LETTER OF INSTRUCTIONS TO THE
ATHLETIC DIRECTORS

April, 1986

TO: SICA Athletic Directors
FROM: J. E. Riordan
RE: Project Directions

Please do the following:

- 1) Distribute the packets to each Varsity Coach within 24 hours.
- 2) Gather all returned packets in envelope provided and check off coaches' names.
- 3) Ask for return of coaches' packets, if not returned in seven days.
- 4) Have envelope with coaches' packets available in your office.

I shall call you within two weeks for pickup time and directions to your office.

Thank you again for your assistance on this project.

/ib

APPENDIX C
LETTER OF INTRODUCTION TO THE
COACHES

April, 1986

Dear Coach:

I am conducting a research study for a doctoral dissertation on the topic of motivation/satisfaction and high school coaches. This study is under the chairmanship of Dr. Philip Carlin, Department Chairperson of Education Administration, Loyola University, Chicago, Illinois.

The purpose of the study is to determine those factors which provide satisfaction and motivation for high school coaches. Those factors which provide dissatisfaction and lessen motivation will also be studied. I have received the support of the SICA Athletic Directors for this study and am asking approximately one hundred and twelve coaches to assist me (4 coaches per SICA school).

If you agree to participate in this project, please complete the enclosed questionnaire. Specific instructions are included as a cover sheet. An envelope is also provided. The completed questionnaire is to be placed in the envelope, sealed, and returned to your athletic director within one week. Be assured that your responses will be held confidential and remain anonymous. The identification on the envelope is only to acknowledge the return of the information.

I fully realize the busy schedule that a head varsity coach must maintain. It is with that thought that I appreciate your participation and thank you, in advance, for your cooperation.

Sincerely,

James E. Riordan
Associate Principal

JER:ib

APPENDIX D
INFORMATION AND INSTRUCTIONS
FOR COACHES

INFORMATION AND INSTRUCTIONS

1. The purpose of this questionnaire is to collect factual accounts of experiences which high school coaches have had that relate to satisfaction and motivation. These incidents will be categorized which will identify factors which contribute to satisfaction/dissatisfaction and motivation.

2. It would be helpful if the incidents would be related in enough detail to enable someone who was not there to understand what happened.

3. The questionnaire data will be held in strictest confidence. The specific data will only be shared with the research committee at Loyola University.

APPENDIX E
QUESTIONNAIRE FOR COACHES

Reflect on your past and current coaching experiences. Think of that incident that has been the most satisfying and has motivated you to continue coaching.

1. Relate that incident which was the most satisfying in your coaching career in enough detail for someone who was not there may understand.

2. Relate how you felt after this most satisfying experience.

3. Overall, did you have a more positive attitude toward coaching as a result of this incident?

_____ Yes

_____ No

4. (If yes to #3)

In your estimation, approximately how long did you maintain this positive attitude?

_____ momentarily _____ a few hours _____ days

_____ weeks _____ months _____ years

5. In your estimation, how strong was your positive attitude as a result of this incident?

1

2

3

4

5

Hardly Noticeable

Very Strong

Reflect on your past and current coaching experiences. Think of that incident that has been the least satisfying and has motivated you to consider quitting.

1. Relate that incident which was the least satisfying in your coaching career in enough detail for someone who was not there may understand.

2. Relate how you felt after this least satisfying experience.

3. Overall, did you have a more negative attitude toward coaching as a result of this incident?

_____ Yes

_____ No

4. (If yes to #3)

In your estimation, approximately how long did you maintain this negative attitude?

_____ momentarily _____ a few hours _____ days

_____ weeks _____ months _____ years

5. In your estimation, how strong was your negative attitude as a result of this incident?

1

2

3

4

5

Hardly Noticeable

Very Strong

CLOSED ENDED QUESTIONNAIRE
(Please put check marks in appropriate blanks)

1. Are you a tenured teacher?

Yes _____ No _____

2. How many years coaching?

1-5 _____ 6-10 _____ 11 or more _____

3. Do you have a formal coaching evaluation procedure completed by a supervisor (i.e., athletic director, asst. principal, or principal)?

Yes _____ No _____

4. What is your won/loss percentage?

0-250 _____ 250-500 _____ 500-750 _____ 750-over _____

5. Which salary range are you paid as head coach?

\$ 500 - 1000 _____
1001 - 1500 _____
1501 - 2000 _____
2001 - over _____

APPENDIX F
LIST OF PARTICIPATING SCHOOLS

LIST OF PARTICIPATING SCHOOLS

V. J. ANDREW HIGH SCHOOL
171st & 90th Avenue
Tinley Park, IL 60477

ARGO HIGH SCHOOL
7329 West 63rd Street
Summit, IL 60501

BLOOM HIGH SCHOOL
10th Street & Dixie Highway
Chicago Heights, IL 60411

BLOOM TRAIL HIGH SCHOOL
Sauk Trail & Cottage Grove
Chicago Heights, IL 60411

BOLINGBROOK HIGH SCHOOL
350 West Blair Lane
Bolingbrook, IL 60439

BRADLEY-BOURBONNAIS HIGH SCHOOL
North Street & Center Avenue
Bradley, IL 60915

BREMEN HIGH SCHOOL
15203 South Pulaski Road
Midlothian, IL 60445

CRETE-MONEE HIGH SCHOOL
West Exchange Street
Crete, IL 60417

EISENHOWER HIGH SCHOOL
12700 South Sacramento
Blue Island, IL 60406

HILLCREST HIGH SCHOOL
175th & Pulaski Road
Country Club Hills, IL 60477

HOMEWOOD-FLOSSMOOR HIGH SCHOOL
999 South Kedzie Avenue
Flossmoor, IL 60422

JOLIET CENTRAL HIGH SCHOOL
201 East Jefferson Street
Joliet, IL 60432

JOLIET WEST HIGH SCHOOL
401 North Larkin Avenue
Joliet, IL 60435

KANKAKEE HIGH SCHOOL
1200 West Jeffery Street
Kankakee, IL 60901

LINCOLN-WAY HIGH SCHOOL
Route #30
New Lenox, IL 60451

LOCKPORT HIGH SCHOOL
1222 South Jefferson Street
Lockport, IL 60441

OAK FOREST HIGH SCHOOL
152nd & Central Avenue
Oak Forest, IL 60452

OAK LAWN HIGH SCHOOL
9400 Southwest Highway
Oak Lawn, IL 60453

REAVIS HIGH SCHOOL
77th and Austin Boulevard
Burbank, IL 60459

RICH CENTRAL HIGH SCHOOL
203rd & Governors Highway
Olympia Fields, IL 60461

RICH EAST HIGH SCHOOL
Sauk Trail & Westwood Drive
Park Forest, IL 60466

RICH SOUTH HIGH SCHOOL
5000 Sauk Trail
Richton Park, IL 60471

H. L. RICHARDS HIGH SCHOOL
10601 Central Avenue
Oak Lawn, IL 60453

ROMEOVILLE HIGH SCHOOL
100 North Independence Blvd.
Romeoville, IL 60441

SANDBURG HIGH SCHOOL
133rd & LaGrange Road
Orland Park, IL 60462

ALAN B. SHEPARD HIGH SCHOOL
13049 South Ridgeland
Palos Heights, IL 60463

AMOS ALONZO STAGG HIGH SCHOOL
111th & Roberts Road
Palos Hills, IL 60465

T. F. NORTH HIGH SCHOOL
755 Pulaski Road
Calumet City, IL 60409

T. F. SOUTH HIGH SCHOOL
18500 Burnham Avenue
Lansing, IL 60438

THORNRIDGE HIGH SCHOOL
Sibley Blvd. & Cottage Grove
Dolton, IL 60419

THORNTON HIGH SCHOOL
151st & Broadway
Harvey, IL 60426

THORNWOOD HIGH SCHOOL
171st & South Park Avenue
South Holland, IL 60473

TINLEY PARK HIGH SCHOOL
6111 West 175th Street
Tinley Park, IL 60477

APPROVAL SHEET

The dissertation submitted by James Edward Riordan has been read and approved by the following committee:

Dr. Philip M. Carlin, Director
Associate Professor, Educational Leadership and Policy Studies

Dr. Max Bailey
Associate Professor, Educational Leadership and Policy Studies

Dr. Edward T. Rancic
Lecturer, Educational Leadership and Policy Studies

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Education.

December 1, 1988
Date

Philip M. Carlin
Director's Signature