Motivation, job satisfaction, needs, and vocational preferences of urban secondary teachers and administrators.

Michael Joseph. Seguin
University of Windsor

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MOTIVATION, JOB SATISFACTION, NEEDS, AND VOCATIONAL PREFERENCES
OF
URBAN SECONDARY TEACHERS AND ADMINISTRATORS

by

Michael J. Seguin

A Thesis
Submitted to the Faculty of Graduate Studies and Research
through the Faculty of Education
in Partial Fulfillment of the Requirements for
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# TABLE OF CONTENTS

**ABSTRACT** ........................................................................................................ ii

**ACKNOWLEDGMENTS** ....................................................................................... iii

**LIST OF TABLES AND FIGURES** ....................................................................... vi

**CHAPTER**

I. **INTRODUCTION** .............................................................................................. 1  
   A. General Statement of the Problem ................................................................. 1  
   B. Significance of the Proposed Study ............................................................... 2  
   C. Definition of Terms ....................................................................................... 4  
   D. Research Questions and Hypotheses ............................................................ 5

II. **REVIEW OF THE LITERATURE** .................................................................. 7  
   A. Introduction .................................................................................................. 7  
   B. Maslow’s Hierarchy of Needs ...................................................................... 10  
   C. Herzberg’s Two-Factor, Motivation-Hygiene Theory .................................... 13  
   D. Motivation and Job Satisfaction in the Work Setting .................................... 21  
   E. Educational Research Based on Motivation and Job Satisfaction ............... 36  
   F. Holland’s Theory of Vocational Interests and Personality ......................... 60  
   G. Theory of Vocational Choice and Personality ........................................... 69

III. **METHODS AND PROCEDURES** ................................................................. 77  
   A. Subjects (Population and Sample Selection) ................................................. 77  
   B. Instrumentation ........................................................................................... 77  
   C. Procedures .................................................................................................... 79  
   D. Limitations of the Design ............................................................................ 83

IV. **ANALYSIS OF RESULTS** ............................................................................. 85  
   A. Data Analyses and Presentation .................................................................. 85

V. **DISCUSSION** ................................................................................................. 110  
   A. Discussion ..................................................................................................... 110  
   B. Recommendations ....................................................................................... 123

VI. **APPENDIXES** ............................................................................................. 128  
   A. Personal Data Sheet .................................................................................... 128  
   B. Sample Questions (WMI) ............................................................................ 129  
   C. Sample Questions (VPI) ............................................................................ 130  
   D. Faculty of Education Thesis Approval ....................................................... 131  
   E. Ethics Committee Approval ........................................................................ 132  
   F. Letter Requesting Permission for Study Implementation ......................... 133  
   G. Letter from Teleometrics International ...................................................... 134  
   H. Cover of Work Motivation Inventory ......................................................... 135
I. Copyright of Work Motivation Inventory ........................................ 136
J. Cover Letter for Questionnaire .................................................. 137
K. Work Motivation Profile Summary .......................................... 138
L. Profile Summary for Teachers and Administrators .................... 139
M. Profile Summary for Teachers, Administrators, and IGR ............. 140
N. Profile Summary for Educators and IGR ................................. 141
O. Profile Summary for Teachers, Administrators, Educators, IGR .... 142

REFERENCES .................................................................................. 143

VITA AUCTORIS ............................................................................ 152
LIST OF TABLES

1. Secondary Teachers and Administrators Selected for the Sample .............. 82
2. Work Motivation Inventory Needs by Location ..................................... 87
3. Work Motivation Inventory Needs by Age ........................................... 88
4. Work Motivation Inventory Needs by Position ..................................... 90
5. Work Motivation Inventory Needs by Gender ........................................ 91
6. Work Motivation Inventory Needs by Years of Experience ..................... 92
7. Work Motivation Inventory Needs by Household Income ........................ 94
8. Work Motivation Inventory Needs by Realistic Personality ...................... 95
9. Work Motivation Inventory Needs by Investigative Personality ................ 97
10. Work Motivation Inventory Needs by Artistic Personality ........................ 98
11. Work Motivation Inventory Needs by Social Personality ........................ 99
12. Work Motivation Inventory Needs by Enterprising Personality ............... 101
13. Work Motivation Inventory Needs by Conventional Personality ............. 102
14. Work Motivation Inventory Needs by Self Confident Personality ............. 103
15. Work Motivation Inventory Needs by Masculine-Feminine Personality ....... 105
16. Work Motivation Inventory Needs by Status Personality ........................ 106
17. Work Motivation Inventory Needs by Infrequency Personality ................. 107
18. Work Motivation Inventory Needs by Acquiescence Personality ............... 109
19. Profile Summary for WMI, Administrators, and Teachers ....................... 121
20. Profile Summary for WMI and Educators ........................................... 122

LIST OF FIGURES

a. Maslow’s Hierarchy of Needs .............................................................. 14
b. Herzberg’s Two-Factor Theory ............................................................. 15
c. Herzberg - A Model for Job Analysis .................................................... 16
d. Maslow’s and Herzberg’s Theories Combined ......................................... 18
e. Hexagon Model - Holland’s Theory of Careers ....................................... 65
CHAPTER I
INTRODUCTION

A. General Statement of the Problem

Education in Ontario is currently in a period of transition and change in order to satisfy the need for greater accountability to the people it serves. School boards and the teaching profession at large are experiencing closer scrutiny with regard to policies and practices implemented in order to meet these needs.

In the Government of Ontario's effort to maintain public confidence and overall satisfaction with its educational policies, it has put in place new programmes designed to meet the needs of students and the parents of school age children. Examples of the new programmes include a parent advisory group called the Ontario Parent Council and the institution of the destreamed Common Curriculum programme for students from grades seven to nine.

The most recent controversial governmental policy affecting public servants and, specifically, educators in this province is the Social Contract. In an effort to deal with a rising deficit and escalating government costs, provincial authorities imposed sanctions on the Public Service sector for a three year period. These restrictions profoundly affected the educational profession.

The Social Contract sanctions directly affected teachers, administrators, and boards of education. These sanctions include: hiring freezes, staff cuts, larger class sizes, dwindling transfer payments from the provincial government to the school boards, reduced funding for programmes, pay freezes, days off without pay, the loss of increment payments for experience, and greater demands upon the individual. Teachers and administrators are expected to accomplish more with fewer resources.
School boards across the province have applied different methods to achieve their cost reduction targets and, through the process, may have caused specific effects on either teachers or administrators. These include individual needs, motivation, and the job satisfaction of teachers and administrators who must cope with these imposed changes. Although teachers and administrators have some control in decision making, change is usually met with resistance when there is no ownership by those involved in the implementation.

The purpose of this study is to determine whether any significant differences in motivation, job satisfaction, and individual needs exist between teachers and administrators of differing levels of experience and gender. It is important to note that the implementation if this study took place during the second year of the three-year Social Contract. The researcher will also measure individual attitudes or interests about various kinds of work. The data will be analyzed to assess feelings about work and whether a correlation exists between individual needs and job satisfaction. Satisfying the various need deficiencies of teachers and administrators is becoming increasingly important. Satisfied individuals can realize their potential and become highly motivated and dedicated. The quality of education is bound to suffer in an environment where individuals lack the fulfillment of basic needs (Lawler, 1973).

B. Significance of the Proposed Study

It is anticipated that this study will benefit society as the general population has a vested interest in the quality of teaching in its schools. In part, effective teaching may be the product of teacher and administrator job satisfaction as various individual and collective needs are realized. Teachers and administrators want to feel confident and successful in their work yet much of their effort might be hampered by psychological
factors that can be addressed. Sergiovanni and Starratt (1979) expressed a similar view:

If one accepts the premise that most teachers seek meaningful satisfaction from work and wish to view themselves as competent, significant and worthwhile contributors to society, then it is easy to understand why, when confronted with a work environment characterized by mistrust, arbitrariness, passivity, conformity, and paternalism, they often look to recreation, hobbies and fraternal or social groups for this satisfaction. Many seek broader alternatives as they attempt to increase their control over the reward-granting structures of schools. Still others choose to play the "organizational game" in hopes that they may be promoted to positions which afford more meaningful satisfaction.

(p. 152)

It is vital that the public, the government, and the school board administrations be made aware of those factors that have an effect on job satisfaction in the teaching profession.

Two particular parties might especially benefit from this study. First, teachers who have certain need deficiencies can be rejuvenated by the application of some of the useful information that is to be gained. Teachers who are deprived of need satisfactions will seek other job markets to meet their needs for advancement, achievement, responsibility, recognition, and interesting work. "Those teachers remaining in teaching who might have been motivated if motivation factors were present, are forced to simply survive and race to the parking lot at 3:45 p.m." (Kaiser, 1982, p. 18). It is worthwhile to assume that any knowledge gained in the field of motivation would be an asset to both teachers and the people they serve, be it the public or their supervisors. Second, administrators could benefit from information gathered from this study by not
only making themselves aware of the needs related to their work, and thereby
experiencing increased job satisfaction, but also by availing themselves of the
opportunity to gather meaningful information to enable them to make sound decisions
with regard to teacher satisfaction. The end result would be a highly satisfied and
motivated group of professionals.

C. Definition of Terms

For the purposes of this study, the following terms will be used and defined as follows:
1. Administrators: any positions of academic administration including vice-principals,
principals, consultants, coordinators, superintendents, and directors of education not
actively engaged in classroom teaching. Non-teaching administrators, such as those in
finance or maintenance, are not considered in this study.
2. Equity: defined as just or fair. A person can be motivated to alleviate a feeling of
inequity.
3. Equity Theory: based on the assumption that individuals are motivated by their desire
to be equitably treated in their work relationships (Gray & Starke, 1988).
4. Job Satisfaction: "best thought of as feelings or emotions which accompany thoughts or
actions that are related to the work place" (Landy & Trumbo, 1980, p. 414).
5. Motivation: "is the result of processes, internal or external to the individual, that
arouse enthusiasm and persistence to pursue a certain course of action" (Gray & Starke,
6. Needs: defined according to the five levels in the Hierarchy of Needs model by Abraham
Maslow: physiology, safety, love and belonging, esteem (ego-status), and
self-actualization and the needs as prescribed by the Two-Factor, Motivation-Hygiene
theory of Frederick Herzberg.
7. Perceived Need Deficiency: "the difference between the amount of perceived satisfaction actually obtained for a given need and the amount of satisfaction that individuals feel they should obtain for that need" (Gliedomenico, 1972, p. 6).

8. Secondary Teacher: a person employed in secondary schools. In Ontario, these individuals generally teach grades 9 through 12 and possibly a fifth year called Ontario Academic Credit (OAC).


10. Validated Instrument: "a questionnaire or survey that has been validated by field tests or pilot studies" (Ratliff, 1985, p. 8).

11. Vocational Preference Inventory: (VPI) A validated instrument that is designed to assess the feelings and attitudes an individual has about different types of work.

12. Work Motivation Inventory: (WMI) A validated instrument that is designed to assess the kinds of needs and values which individuals see as important in making decisions about their work (Hall & Williams, 1994).

D. Research Questions and Hypotheses

For the purpose of this research, the following questions and hypotheses are expressed:

**Question 1:** Are there any statistically significant differences in the need levels as prescribed by the Maslow Hierarchy of Needs between urban secondary teachers and administrators?

**Question 2:** Are there any statistically significant differences in the need levels as prescribed by the Maslow Hierarchy of Needs concerning the demographic variables for
urban secondary teachers and administrators?

**Question 3:** Are there any statistically significant differences between the personality choices as measured by Holland’s Vocational Preference Inventory and levels of need satisfaction as measured by the Work Motivation Inventory concerning urban educators?

The following hypotheses are stated in the null:

**Hypothesis 1:** There will be no statistically significant difference in the physiological, safety, love and belonging, ego-status, and self-actualization need levels as prescribed by Maslow’s Hierarchy of Needs between urban secondary teachers and administrators as measured by the Work Motivation Inventory.

**Hypothesis 2:** There will be no statistically significant difference for needs as prescribed by Maslow’s Hierarchy of Needs (physiological, safety, love and belonging, ego-status, and self-actualization) as a function of gender, age group, experience group, position, and household income between urban secondary educators as measured by the Work Motivation Inventory.

**Hypothesis 3:** There will be no statistically significant difference between the personality choices as measured by Holland’s Vocational Preference Inventory and levels of need satisfaction as measured by the Work Motivation Inventory concerning urban educators.
CHAPTER II
REVIEW OF THE LITERATURE

A. Introduction

Education in Ontario is presently undergoing a most dynamic and demanding change. Society, and specifically education, is preoccupied with restructuring traditional ways of performing tasks. Never before has a government, through legislation, undertaken the drastic process of opening up collective bargaining agreements. For example, the public sector social contract has been implemented to remedy some of the government fiscal problems. This type of action could lead to feelings of inequity because the public sector has been singled-out. The sanctions could affect the motivation and job satisfaction of teachers and educational administrators who must deal with the aftermath of such policy making.

Sergiovanni (1975) stated that teachers fulfilled various need deficiencies by investing themselves in work. Teachers and administrators dutifully invested much of their energy and time outside the regular work day. They achieved desired rewards by investing their time, creativity, skill, enthusiasm, mental energy, and effort. Teachers sought to satisfy these needs through both tangible and intangible means such as money, respect, comfort, security, social acceptance, and sense of accomplishment. Investment in work, according to Sergiovanni, was comprised of the participation investment and the performance investment.

In order to retain employment, teachers must subscribe to the participation investment. The requirements could take the form of preparing lesson plans, committee assignments, meeting class, attending required meetings, and the observance of school and school board regulations. In other words, they would endeavour to meet their
obligations according to the law. In return for this investment, teachers could receive salary, security, fair supervision, retirement benefits, hospitalization coverage, and good human relations for their efforts. Sergiovanni further stated that unless employers and employees move beyond the traditional legal work relationship, great achievements would never be realized.

The performance investment dealt with the movement of teachers beyond the limits of the legal work relationship. As noted earlier, teachers devoted more than would be contractually required by a given organization. This could, in turn, instill a deep feeling of satisfaction within both their work and themselves. "Job satisfaction is one measure of the quality of life in organizations and is worth understanding and increasing even if it doesn't relate to performance" (Nadler & Lawler, 1983, p. 79). The organization must provide incentives to encourage the performance investment and the motivation to work. It is difficult to obtain this type of investment through the rewards of money, better working conditions, and improved human relations. While rewards of this nature may influence and motivate some, their universality is questionable.

One of the essential factors that influence motivation is a person's disposition with regard to attitudes. Freedman (1982) suggested that people are influenced by attitudes, which are a combination of cognitions, feelings or affect, and behaviour. Behaviour, therefore, can be affected by the values, beliefs, and attitudes of the individual. When studying the components of job satisfaction, one is looking at a constellation of (work) attitudes. Different workers have different attitudes toward different aspects of their jobs.

Gray and Starke (1988) perceived that motivation was "the result of processes, internal or external to the individual, that arouse enthusiasm and persistence to pursue
a certain course of action" (p. 104). They explained that motivation can be that which energizes, directs, and sustains behaviour. The term embraces other concepts such as drive, need, incentive, reward, reinforcement, goal setting, and expectancy. Motivation is central to almost everything that the manager, supervisor, or any other member of the work force does. In professional activities, most management work consists of influencing human behaviour. An understanding of motivation provided an individual the basis for dealing with many of the functions of their job and also provided the means for making informed and effective responses to specific work situations.

Motivation can be separated into two components, that of intrinsic motivation and extrinsic motivation. Gray and Starke (1988) proposed that:

extrinsic rewards (e.g., pay, promotions, compliments, etc.) are independent of the task performed and are controlled by other people. Intrinsic rewards (e.g., a feeling of accomplishment of a task that was interesting and challenging) are an integral part of the task and are administered by the individual doing the task. Extrinsic motivation therefore results from anticipation of extrinsic rewards, and intrinsic motivation results from potential intrinsic rewards. (p. 105)

Knowledge about intrinsic and extrinsic motivation can have important implications for an administrator concerning the effectiveness of practices and policies since intrinsic rewards were considered to be the most effective motivators in the workplace.

Maslow (1970) identified that the need to satisfy is the source of motivation. Behaviour usually occurs in response to some tension or discomfort which has been created by an active or unsatisfied need. The goal of the behaviour is to reduce the tension or discomfort, as the behaviour itself is intended to satisfy the need. A satisfied need is no longer a source of tension or discomfort. According to Maslow, only unsatisfied
needs are prime sources of motivation. Maslow developed a five-level "Needs Hierarchy" to account for human behaviour. Lower order needs first must be fulfilled to enable an individual to move to the higher, more mature levels of needs. If the satisfaction of a lower level need is blocked, the individual will not be conscious of or be able to progress to the higher needs. The lower order needs included physiological needs, safety needs, and belonging needs. The lower order needs are generally provided by the organization for the participation investment. They would include benefits such as salary, position, protection, collegiality, and good working conditions. The higher order needs included esteem needs (sometimes referred to as "ego-status" needs) and self-actualization needs. These needs could be attained through the performance investment. Sergiovanni and Starratt (1979) recommended that administrators and supervisors should be cognizant that providing rewards related to higher order needs are the most potent motivators for superior performance since teachers will be able to satisfy these higher order needs only through the accomplishment of school goals.

B. **Maslow's Hierarchy of Needs**

The Hierarchy of Needs Theory, developed by Maslow (1954) was one of the most popular and widely used theories of human motivation. The theory was based on two premises. The first premise was that man "is a wanting animal and rarely reaches a state of complete satisfaction except for a short time" (Maslow, 1954, p. 69). Man, therefore, was motivated by the desire to satisfy certain needs. These needs were arranged in a hierarchical order and identified as physiological, safety, belonging, ego-status or esteem, and self-actualization needs. Needs which were not satisfied created tension within an individual and prompted them to seek to satisfy these needs. This resulted in specific behaviours which were enacted in order to meet these needs and
thereby reduce the tension. Upon satisfaction of the need, equilibrium was restored and the need was no longer a source or motivator of behaviour. For example, when the physiological need for food has been satisfied, it will no longer function as a motivator of behaviour until an individual becomes hungry again. The second premise that was proposed by Maslow was that human needs or "wants" were arranged in a hierarchy of prepotency. The basic needs were arranged in order from lower level to higher level needs and once individuals had satisfied a certain need, they would move up the hierarchy one level at a time in order to eventually satisfy the higher level needs.

The first level of needs, which served as the starting point of the motivational theory, were called the Physiological Needs. These needs included such factors as food, water, air, shelter, exercise, rest, sleep, and sex. The needs reflected the pursuit of physical well-being and the basic necessities required to sustain the human condition. Maslow maintained that the physiological needs were considered to be the most prepotent of all the need levels. This would suggest that any person who was fixated at or lacking the satisfaction of these needs would concentrate on these needs and ignore the higher level needs. It was possible for an individual to require need satisfaction at several levels at any given time but the lowest level need would predominate until it was satisfied.

The second level of needs, the Safety Needs, constituted the next level of the needs hierarchy once the physiological needs had been satisfied. These needs included items such as security, stability, dependency, freedom from fear, anxiety, and chaos, protection from danger and threat, need for structure, job tenure and protection, insurance, and law and order. Maslow stated that most adults in our culture have had their safety needs largely satisfied. The implication here was that safety needs no longer
served as active motivators of behaviour. Like physiological needs, a person would be able to move up to more mature need levels once the safety needs had also been satisfied.

The third level of needs that emerged was that of the Belongingness and Love Needs. These needs were characterized by the desire to have meaningful interpersonal relationships and friendships, for belonging, affiliation, acceptance, and the mutual sharing of love. Maslow believed that people who lacked satisfaction of the belonging and love needs experienced some form of maladjustment in society. Maslow further clarified that belonging and love is not synonymous with sexual needs by stating:

Sex may be studied as a purely physiological need. Ordinarily sexual behavior is multidetermined, that is to say, determined not only by sexual but also by other needs, chief among which are the love and affection needs. Also not to be overlooked is the fact that the love needs involve both giving and receiving love (Maslow, 1954, p. 90).

When the safety needs were finally satisfied, people would become less preoccupied with themselves, would become more aware of others, and would want to associate more with others.

For the fourth level of the needs hierarchy, Maslow (1954) pointed out that all people in society have a "need or desire for a stable, firmly based, usually high evaluation of themselves, for self-respect, or self-esteem, and for esteem of others" (p. 90). The fourth level, entitled The Esteem Needs, was classified into two subsidiary sets. The first set included the desire for strength, achievement, confidence, mastery and competence, adequacy, and independence. The second set was identified by the desire for reputation, prestige, status, dominance, recognition, attention, importance, and appreciation. The absence of these needs would produce feelings of inferiority, weakness,
and helplessness and would lead to discouragement and potential neurotic behaviour. Maslow made the observation that the most stable and therefore most healthy self-esteem was based on deserved respect from others.

The fifth and final need level that Maslow proposed was the need for Self-Actualization. This need would only emerge if the previous need levels had been realized. At this level, a person would attempt to reach their potential. This could be referred to as actualizing or the desire for self-fulfillment. Maslow explained that Self-Actualization would take on a different look from person to person as individual differences would be noted. The individual would seek to reach their highest potential in their specific field of interest. Again, the clear emergence of this need depended upon the prior satisfaction of the physiological, safety, love, and esteem needs. Maslow acknowledged that the order of need satisfaction was not so rigid as implied by the Hierarchy of Needs Theory. It was true that most of the people that were studied fell into the basic needs order that had been established but a number of exceptions were identified. (see Figure a)

C. Herzberg's Two-Factor Motivation-Hygiene Theory

Herzberg, also a motivational theorist, was not concerned with the sources of human motivational behaviour, as was Maslow, but explored the factors and motivation of people in their work environment that have caused either job satisfaction or job dissatisfaction. Herzberg, Mausner, and Snyderman (1962) developed the Two-Factor Motivation-Hygiene Theory that explained that one group of factors called "motivators" caused job satisfaction when in place, and no satisfaction when absent. The other group was called "hygienes", or maintenance factors. When absent, these factors caused dissatisfaction, but when present, led to no dissatisfaction (see Figures b and c).
FIGURE b
HERZBERG’S TWO FACTOR THEORY

MOTIVATOR FACTORS
Possibility of Growth
Achievement
Recognition
Advancement
Work Itself
Responsibility

SATISFACTION

HYGIENE FACTORS
(Maintenance Factors)
Interpersonal Relations
Technical Supervision
Company Policy
Administration
Salary
Status
Job security
Personal Life
Fringe Benefits
Working Conditions

DISSATISFACTION

Herzberg, F., Mausner, B., & Snyderman, B. B. (1962). The motivation to work.

New York: John Wiley & Sons.

New York: John Wiley & Sons.
Herzberg boldly challenged the concept that job satisfaction was part of a continuum where satisfaction and dissatisfaction were polar opposites. It was further believed that factors which caused dissatisfaction could cause satisfaction when improved or eliminated. Herzberg cited satisfiers, not dissatisfiers, as the key motivators to improving work performance.

The theories of Herzberg and Maslow were frequently integrated due to their similarities (see Figure d). This enabled one to get a clear understanding of how and why people are motivated to work. Several commonalities were found when the theories of both Maslow and Herzberg were compared. Maslow proposed that human needs were arranged in a five-tiered hierarchy and Herzberg arranged his needs-based theory on only two sets. The two sets were identified as motivator needs and hygienic needs. The motivator needs corresponded closely with the higher order needs of esteem and self-actualization in the Maslow hierarchy. The love and belonging needs were found to be partially related to motivators. Similarities were found in the area of supervisor-subordinate relations and were found to be somewhat related in non-work aspects of the job such as in interpersonal relations. At this point, an overlap occurred in the love and belonging needs as compared with motivation and hygiene needs. The hygienic needs, which included the physiological, safety and portion of the love and belonging needs, were regarded as potential dissatisfiers rather than sources of motivation. The satisfaction of lower order needs did not produce satisfaction, but merely prevented dissatisfaction. Job performance was not necessarily improved because the satisfaction of these lower needs served only as maintenance factors.

"Therefore, even when lower level needs are satisfied (and thus no longer sources of goal-directed behavior) there is still no reason to expect individuals to perform more
effectively in their work" (Hall & Williams, 1994, p. 12). "Perhaps the most basic similarity between the Maslow Hierarchy of Needs and the Herzberg Two-Factor Theory is that both assume specific needs energize behaviour" (Gray & Starke, 1988, p. 115).

Herzberg explained that the hygiene factors acted in a manner that was analogous to medical hygiene. The hygienes worked "to remove the health hazards from the environment of man" (Herzberg, Mausner & Snyderman, 1962, p. 113). Herzberg viewed the hygienes as taking on a preventative rather than curative role. Since individuals are much more sensitive to a lack of satisfaction of the lower order needs than they are to the satisfaction of these needs, organizations have focused much of their attention to satisfying lower order needs with the expected outcome of increased performance. Herzberg viewed this as flawed because lower order needs only served as sources of distraction. It was also possible that individuals who were unable to satisfy higher level needs would regress to lower level need behaviours.

Herzberg's study was based on a sample of two hundred accountants and engineers who were interviewed concerning events in the work place which caused an increase in job satisfaction or a decrease in job satisfaction. The sample represented a cross-section of workers from several Pittsburgh industries. It was believed that one might be able to gather meaningful data concerning the job attitudes or job satisfaction of the workers by comparing demographic variables such as age, sex, educational level, social class, occupational character, or position in a hierarchy. The findings of the study showed that the factors involved in producing job satisfaction and motivation were separate and distinct from the factors that led to job dissatisfaction.

Since separate factors needed to be considered, depending on whether job satisfaction or job dissatisfaction is being examined, it follows that these two
feelings are not opposites of each other. The opposite of job satisfaction is not job dissatisfaction but, rather, no job satisfaction; and, similarly, the opposite of job dissatisfaction is not job satisfaction, but no job dissatisfaction (Herzberg, 1976, p. 58).

Herzberg felt that two kinds of needs were emerging. The first type of needs, found in the environment, were the built-in drives by humans to avoid pain from their environment by satisfying basic biological needs. The other needs, found in the job content, were related to the ability to achieve and, through achievement, to experience psychological growth. The dissatisfaction or hygiene factors, which were extrinsic to the job, included: company policy and administration, supervision, interpersonal relationships, working conditions, salary, status, and security. They were called hygienic factors because of the potential they had to cause problems if neglected. The satisfaction or motivator factors, which were intrinsic to the job included: achievement, recognition for achievement, the work itself, responsibility, and growth or advancement. It was believed that the motivator factors had the potential to increase job performance.

The Motivator-Hygiene Theory was subjected to a battery of similar and almost identical studies involving over seventeen different occupations, including teachers, and was found to be most reliable. Studies performed both in North America and abroad achieved strikingly similar results. Herzberg (1966) discovered that "the blue collar employees are no exception to the theory and contrary to what most of us believe, the rank-and-file worker has no basic needs that are different from those of his colleagues with white shirts" (p. 112). Replication studies by the Texas Instrument Company involving women from varied occupations from scientists to assemblers yielded the same results and confirmed the basic theory. It appeared that the nature of job attitudes and
work motivation-hygiene theory as first proposed by Herzberg in *The Motivation to Work* had been overwhelmingly established by virtue of the plethora of replications the study had undergone by industrial psychologists.

D. Motivation and Job Satisfaction in the Work Setting

McClelland (1955) developed the Achievement Motivation Theory which explained that the behaviour of people was driven by three dominant need classifications that were derived from the twenty classifications of the Thematic Apperception Test (TAT) developed by Murray (1943). McClelland's three classifications were described as follows: the need for power, the need for affiliation, and the need for achievement. People who felt the need for power were most concerned about the means by which goals were achieved rather than by the actual achievement of them. People who were motivated by this need were obsessed with controlling others and gained satisfaction by being in positions of influence and power. This view presented the individual as having the potential for the abuse of power. McClelland (1973) felt that power had another face which held positive qualities far removed from the authoritarian and dictatorial picture presented initially.

One leads people by helping set their goals, by communicating them widely throughout the group, by taking initiative in formulating means of achieving goals, and finally, by inspiring the members of the group to feel strong enough to work hard for those goals. Such an image of the exercise of power and influence in the leadership role should not frighten anybody and should convince more people that power exercised in this way is not only not dangerous but of the greatest possible use to society. (p. 314)

Satisfaction from social and interpersonal activities was an identifying feature of
people who exhibited the need for affiliation. People who were driven by this need were most concerned about their friends and interpersonal relationships in the workplace. This need for social interaction motivated them to make decisions based on the desire to work closely with others and to maintain the relationships.

People who experienced satisfaction from reaching goals were characterized as having the need for achievement. McClelland (1976) found interest in the need to achieve as a motivational factor and proposed that the characteristics of entrepreneurial role behaviour consisted of the following:

1. Moderate risk taking as a function of skill, not chance; decisiveness,
2. Energetic and/or novel instrumental activity,
3. Individual responsibility,
4. Knowledge of results of decisions--Money as a measure of results,
5. Anticipation of future possibilities,
6. Organizational skills (p. 205).

McClelland argued that individuals who possessed these characteristics had a high achievement make-up in their personality. Those that were motivated by this need would gain satisfaction from successful task performance, and enjoyed feedback based on the work effort. Veroff (1982) also found support for the high need versus satisfaction theory by finding a positive correlation between the job satisfaction of certain individuals and the need to achieve. Distinguishing features of this type of personality, according to McClelland, included the setting of realistic goals, the need for personal responsibility, and independent work environments. The possibility of success would be high under these circumstances and no mistake would be made with regard to recognition for work that was accomplished.
McClelland (1985) argued that money was an ineffective incentive for the high achiever since they used it for information about the quality of their work. "That is, subjects higher in need for Achievement (n Achievement) tended to see money as a measure of success, rather than as an incentive to do better" (McClelland, 1985, p. 248). McClelland stated that "since efficient business activity is a key element in the economic success of individuals and nations, it is not stretching the evidence too far to suggest that the achievement motive has a lot to do with wealth and poverty or the standards of living people enjoy" (p. 595). Again, high achievers were looked upon as being entrepreneurial in nature.

It was believed that each person possessed all three of these needs, among others, and that each person differed in the extent to which these needs motivated them. A key feature of the Achievement Motivation Theory was the claim by McClelland that needs could be learned or unlearned. McClelland also felt that it was important to match an individual's motivation patterns with the needs of an organization. An individual could be matched with an organization that rewards the behaviour associated with their needs which, in turn, could lead to job satisfaction. The environment of an organization could, hypothetically, be adjusted to better suit the motivation and needs of its workers.

McGregor’s Theory X and Theory Y motivational theory (1960) addressed why humans behaved the way they did. Theory X, the traditional view, posed that humans were basically lazy, lacked ambition, disliked responsibility, preferred to be led, and were passive to organizational goals. The average human was a person who disliked and avoided work and saw it as punishment. If one were to achieve lower-level need satisfaction under these conditions, organizational goals would suffer since the satisfaction of certain needs were not, according to McGregor, motivators of behaviour.
Under today's conditions management has provided relatively well for the satisfaction of the physiological and safety needs. The standard of living in our country is high; people do not suffer major deprivation of their physiological needs except during periods of severe unemployment. Even then, the social legislation developed since the thirties cushions the shock. (p. 40)

Theory Y held the opposing view. It contended that humans were not lazy, liked to work, accepted responsibility, were ambitious, desired and wanted to help reach organizational goals, and when given the chance would be committed. The central principle that guided Theory Y was that of integration. In effect, it was up to management to create conditions that were conducive to productive work and achieve organizational goals. The organization would suffer if the goals and needs of both the company and the individuals were not met. The Theory Y integration model demanded that both the organization's and individual's needs be recognized. This could be achieved through a collaborative approach where all members of the organization shared in the resulting rewards. The efforts of the individual were directed toward the objectives of the organization which resulted in the satisfaction of higher-level ego and self-actualization needs.

McGregor (1967) believed that managers had a responsibility to create conditions in an organizational environment where its members could, at all levels, best achieve their goals by directing their efforts toward the goals of the organization. In order to satisfy lower level needs, management needed to provide extrinsic rewards, on an equitable basis, for all kinds of contributions to the success of the operation. Higher level needs could be satisfied through the provision of intrinsic rewards at the work place. The success that could be realized at this level could be achieved through participative strategies where people like to be consulted about decisions that affect
them.

Maslow (1970) was influenced by the Theory X and Theory Y of McGregor and felt it necessary to add a Theory Z to the equation. Maslow concurred with McGregor's theory of an authoritarian X personality and a humanistic Y personality and believed that they would affect the practices of management. However, Maslow felt that other factors, Theory Z factors, were essential to organizational development. The components of this model included shared decision making, mutual trust, intimacy, caring, cooperation and the impulse to self-actualize, to love, and to reach for the highest of human values.

Adams and Rosenbaum (1962) used the Equity Theory to explain the behaviour of individuals in their work environments in terms of perceived fair treatment and equality. The theory offered that if individuals felt that inequity existed in their work relationships they would be motivated to reduce or eliminate these feelings. The presumption here is that people maintained a desire to be fairly treated and compensated for their inputs and efforts. The Equity Theory, generally credited to Adams for work performed for the General Electric Company, analysed the factors which caused the perceived feeling of equity or inequity in the workplace. Adams (1963) defined four terms that were necessary for the understanding of equity theory.

1. Person-the individual for whom equity or inequity exists;

2. Comparison Other-any group or individual used by Person as a referent regarding inputs and outcomes;

3. Inputs-characteristics individuals bring with them to the job; these may be ascribed (e.g., race, sex, age, etc.) or achieved (e.g., education, experience, etc.). They are subjectively perceived by the Person.

4. Outcomes-those things the individual receives from the job (e.g., pay,
promotion, fringe benefits, etc.); these are also subjectively perceived by Person (p. 424-425).

Inputs, according to Adams and Jacobsen (1964), were referred to as those things that a person contributed to a job and outcomes were described as those things that were received for work that was performed. When the Person compares their inputs and outcomes ratio with the Comparison Other ratio, a judgement is made about the perceived inequity.

The central proposition of the equity theory was summarized by Adams (1965) in the following schematic:

\[
\text{Outcomes A} = \frac{\text{Outcomes B}}{\text{Inputs A}} \cdot \frac{\text{Inputs B}}{\text{Inputs A}}
\]

"A" compares their perceived inputs and outcomes to "B" and decides if equity exists.

This was referred to as the comparison other factor. Adams suggested that if inequity existed, the result would be dissatisfaction and an unpleasant emotional state. The greater the difference in the perceived equity or inequity, the greater the motivation to reduce it. Adams and Freedman (1976) added that the equity theory appeared weakly prepared to be applied to social problems. They did believe that it had great relevance to inequities in economic, legal, interpersonal, and intergroup relationships.

Locke (1968) took an interactionist approach and believed that the causes of job satisfaction were not the result of the job or the person but was based upon the relationship that existed between these two elements. It was proposed that satisfaction resulted when organizational needs coincided with the needs of the individual.

A job is not an entity but an abstraction referring to a combination of tasks performed by an individual in a certain physical and social context for financial (and other) remuneration. Since a job is not perceived or experienced as such, it
cannot be evaluated as a single unit. Overall job satisfaction is the sum of the
evaluations of the discriminable elements of which the job is composed. (p. 27)
Overall job satisfaction was defined in terms of the tasks of which it was composed and
the weighting of these elements was determined in the satisfaction rating.

Locke reasoned that people were not always conscious or aware of their needs.
Needs could be seen as being those things which were of value to an individual and need
frustration could produce discomfort since people were not always readily aware of the
intensity of their needs. Since a job was comprised of many conscious and unconscious
elements consisting of task oriented and social behaviours, overall job satisfaction could
only be evaluated by in terms of the sum of its separate components. Locke felt that a
person's values were arranged hierarchically due to the presumption that people value
some things more than others. A lack of this type of need structure would result in
tremendous conflict which would disable the action of an individual. Satisfaction differed
from individual to individual since the importance or value of a particular subject
matter depended on its importance to each individual. Locke clarified this by stating that
"every experience of satisfaction or dissatisfaction reflects a dual judgement: the degree
of value-precept discrepancy and the relative importance of the value to the individual"  
(p. 27).

Locke suggested that satisfaction could be seen as a conscious experience that
could not be observed directly. One could judge the level of satisfaction of an individual
by the statements they made.

Further, since there is no known unit for measuring such experiences, all
between-subject comparisons of satisfaction contain potential measurement
errors. Such errors can be largely avoided, however, by computing
within-subject correlations, e.g., by ranking the satisfaction ratings a given individual makes for the various job elements and comparing them with the rank of the value-perception discrepancy scores for these same elements. All one need assume in this case is that the relative satisfaction ratings given by each person are valid. (pp. 21-22)

Job satisfaction was seen as an emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values. Job dissatisfaction would result from a disagreeable or unpleasant state of being that occurred when one discovered that a job blocked or impeded one's attainment of job values. Locke conceptualized a person's emotions as one of life pursuits and that pleasure and displeasure was derived from those pursuits. Pleasure, or satisfaction, would be the consequence of perceived value achievement and displeasure, or dissatisfaction would be the consequence of perceived value frustration. Locke examined the theory and studies of Herzberg and came to the conclusion that a persistent finding of these studies was that factors related to the work itself (e.g., achievement, failure) were potent determinants of both satisfaction and dissatisfaction. Work and other life pursuits became a passage of reward seeking behaviour where incentives proved to motivate individuals to pursue pleasure and needs.

Lawler (1973) noted that voluntarily motivated behaviours by individuals were crucial to determining the effectiveness of organizations. It was important to understand that organizations directly influenced the motivation of their individual members. In order to maintain effective organizations, it was critical for organizations to be able to encourage effective individual performance. Organizations differed in what they did to influence motivation and people were motivated in different ways. Lawler concluded that
individual behaviour was motivated by an attempt to satisfy a need that was the most important need at a certain point in time. Lawler further predicted that if need satisfaction in a hierarchical setting was valid, it would be possible to predict what would likely be important to employees. It was also suggested that:

as people get promoted in organizations and their lower-level needs become satisfied, they will become concerned with self-actualization and growth. It also suggested that if a person's job security is threatened, he will abandon all else in order to protect it. (p. 29)

Lawler felt that needs were more likely to be grouped into simply higher-level and lower-level needs. The lowest level needs consisted of existence and security needs and the higher level consisted of the social, esteem, autonomy, and self-actualization needs. It was suggested that most people were simultaneously motivated by several of the same level needs and did not seem to be motivated by needs from two different levels at the same time.

Lawler felt that it was important to study the effects that people's jobs have on their lives. Much of this information could be obtained through the analysis of information with regard to an individual's job satisfaction. Some of the factors that contributed to job satisfaction included pay satisfaction, satisfaction with the work itself, and satisfaction with supervision. Lawler stated that:

the reason for studying satisfaction is likely to be an increasingly prominent one as we begin to worry more about the effects working organizations has [sic] on people and as our humanitarian concern for the kind of psychological experiences people have during their lives increases. What happens to people during the work day has profound effects both on the individual employee's life
and on the society as a whole, and thus these events cannot be ignored if the
quality of life in a society is to be high. (p. 63)

The determinants of job satisfaction were listed by looking at two relationships. The
first was the relationship between satisfaction and the characteristics of the job and the
second was the relationship between satisfaction and the characteristics of the person.
Personal factors could influence what people feel they should receive from their job and
job conditions could influence both what they perceive they actually receive and what
they perceive they should receive. Personality or traits had an effect on an individual’s
perception. Lawler summed up the research by concluding that “rather than trying to
motivate everyone in the organization with the same approach, the organization would
recognize the importance of individual differences and try to individualize management
to fit the nature of its work force” (p. 207).

Porter, Lawler, and Hackman (1975) studied several theories concerning
behaviour in organizations. They drafted a list of seven premises they felt were
paramount to the understanding of how individuals interact with their organizations.
The seven premises were identified as follows:

1. The quality of the interaction between individuals and the organizations for
which they work can be improved to the benefit of both parties.
2. The responsibility for improving the quality of individual-organization
interactions rests with both the individual employee and the organization.
3. A systems perspective toward organizations is inevitable: the phenomena of
organizational life are not isolated segments or incidents.
4. Organizations and individuals need to become more cognizant of the fact that
work in organizations is typically carried out in a social situation - and use that
fact to their mutual advantage.

5. There exists a commonality of organizational phenomena across all types of organizations and in a wide variety of cultural settings.

6. The development of both individuals and organizations will continue to be both a necessity and an objective.

7. Behavioral science research has much to offer in improving both the quality of the work experience for individuals and the productivity of work organizations.

(pp. 25-30)

When the two-factor theory of satisfaction and motivation, as developed by Herzberg, was mentioned, the authors maintained that the theory had gained wide acceptance among managers due to the reasoning that the theory made good intuitive sense. They believed that its strength was centered around the idea that the theory was simple, and provided only two classifications of job descriptors, namely; motivators and hygiene factors. It was also believed that managers who had personal experiences with jobs where motivators were mostly absent, could benefit from information concerning aspects of the job that could affect the satisfaction of employees. This was due, in part, to the rationale that unless the existence, or the lower-level hygiene needs were satisfied first, none of the higher-order needs would come into play.

Walster, Walster and Berscheid (1978) felt that civilized people have always been concerned with justice. They were interested in what people thought was fair and equitable and how they responded when they felt that their relationships were not providing them with anticipated rewards or benefits. The following propositions were rendered by Walster et al. with respect to equity theory:

Proposition I: Individuals will try to maximize their outcomes (where outcomes
equal rewards minus costs).

Proposition IIA: Groups can maximize collective reward by evolving accepted systems for equitably apportioning resources among members. Thus, groups will evolve such systems of equity, and will attempt to induce members to accept and adhere to these systems.

Proposition IIB: Groups will generally reward members who treat others equitably, and generally punish (increase the costs for) members who treat others inequitably.

Proposition III: When individuals find themselves participating in inequitable relationships, they will become distressed. The more inequitable the relationship, the more distressed individuals will feel.

Proposition IV: Individuals who discover they are in an inequitable relationship will attempt to eliminate their distress by restoring equity. The greater the inequity that exists, the more distress they will feel, and the harder they will try to restore equity (p. 6).

These authors further proposed that people who were equitably treated were more satisfied with their jobs. They discovered that workers felt more comfortable when they were equitably paid than when they were over or underpaid. It was also discovered that the quality and quantity of work was affected by the workers' belief that they were being equitably paid as opposed to being over or underpaid. They concluded by pointing out that workers who felt the prevalence of inequity would be inclined to remedy the situation by simply quitting and moving on to a job where they would be treated more fairly.

Bass and Ryterband (1979) beleived that the job was a source of satisfaction and that the satisfaction could exist on a multidimensional plane. Their contention was that
the job could simultaneously be a source of satisfaction and dissatisfaction. They also suggested that people work for three different reasons. The three reasons included the expectation of our society for individuals to engage into work, the extrinsic rewards that came from work, and the possibility for intrinsic rewards where the work itself was found to be pleasing and satisfying. Bass and Ryterband suggested that inequity with regard to salary and pay maintained the capacity to have an effect on overall job satisfaction and referred to Adam's equity theory of outcomes and inputs and the comparison other to reinforce this point. Further, it was suggested that:

People's comparisons may also be toward that of the society as a whole. For example, an employee may be dissatisfied because his own salary is failing to keep up with economic inflation or the growth of income of his friends in the community or his wife or his fellow workers or what he sees as the gains being made by other occupational groups. (p. 86)

It was concluded that social comparisons could play an important role in determining the level of satisfaction by an individual and the amount of effort or inputs the individuals would produce to maintain their existing situations.

Nadler, Hackman, and Lawler (1979) regarded the study of job satisfaction as important because they believed that it would yield information about the quality of work life. There were secondary benefits to be procurred through the study of job satisfaction in the form of diminished employee absenteeism, tardiness and turnover. While satisfaction was seen as the result of performance, rather than the reverse, it was suggested that enhanced performance opportunities in the work place would therefore improve employee motivation. They suggested that a satisfied employee saw more positive outcomes associated with coming to work. Satisfaction, in part, was due to
the perception that an individual was receiving what they felt they should be receiving from their work. Dissatisfaction resulted when there was a large discrepancy between what they received and what others received. "People seem to compare what they are putting into a work situation and what they feel they are getting out of it with what others receive in return for what they put into their work situation" (p. 35). Nadler et al. concluded that because people frequently misperceive the events that take place in their work environments, it would be difficult for organizations to implement reward systems that would please everyone.

Landy and Trumbo (1980) viewed work as being an activity that consistently demanded much from an individual in a physical, emotional, and cognitive sense. The quality of these responses to work engaged a set of feelings that were referred to as the meaning that work holds for an individual. To obtain a complete picture of a person's behaviour in a work setting, Landy and Trumbo felt that it was necessary to observe a person's responses to work elements in the work setting. These responses were referred to as the "job satisfaction" or "morale" that one perceived. Landy and Trumbo assumed that people's interactions with their work environment affected their emotional state causing them to occupy various points on a continuum from extreme happiness through neutrality to extreme unhappiness. This variance in the emotional state in response to job-related stimuli was represented in terms of either job satisfaction or job dissatisfaction.

Blai (1981) decided to test the motivational theory of Maslow in order to see if the degrees of self-assessed job satisfactions varied with the strength of the needs satisfied. Federal government workers from 29 different jobs were given a questionnaire which enabled the researchers to estimate their job satisfaction from
measures of need satisfaction. Maslow's research was corroborated due to the similarity of the findings concerning psychological needs. The needs identified as strongest were interesting duties, job security, advancement, and self-actualization. The weaker needs took the form of independence, esteem, and congeniality. Blai offered that the profiles of work that were developed through the study would be of practical value to vocational counselors.

Messick and Cook (1983) prepared a paper concerning the effects of equity theory from a psychological and sociological perspective. The material was presented at a symposium in Portland, Oregon in 1981 and dealt with small group behaviour. They suggested that reward expectancies were developed over time and were based upon one's history of outcomes. The expectancies and patterned outcomes were viewed as being important determinants of satisfaction and to a lesser degree, determinants of fairness. From their data, Messick and Cook surmised that satisfaction judgements were influenced by both social and historical comparisons and that a fairness judgement was derived only from the former.

Shapero (1984) reasoned that the make-up of the work environment had an effect on the motivation and performance of workers. The work situation was comprised of the many actions of supervisors which included the establishment of goals, work assignments and organizational assignments, evaluation, provision of necessary budgets, tools, materials, information, organizational structure and procedures. The interpersonal relationships between colleagues was also an important component of this environment. The performance of individuals was seen as a product of their motivation and abilities, and the necessary tools for work. Shapero forwarded the following equation to depict this relationship: \( P = M \times A \times N \), where "P" equals performance, "M" equals
motivation, "A" equals ability, and "N" equals the necessaries (tools, materials, information, and organizational constraints). Job satisfaction through proficient performance could be realized when these components were all in place.

Cherrington (1994) examined equity in terms of its relationship to the cognitive theory of human behaviour. Through social comparison individuals decided whether they were being treated fairly. Any motivational problems could be traced to the outcomes of this comparison and led to either job satisfaction or dissatisfaction. Individuals expected certain outcomes for the efforts, time and contributions they made to an organization. When rewards for work performed were not meted out justly, the potential for the feeling of anger and dissatisfaction existed. The comparison was based on the social comparison rather than on a fixed standard. People who thought that their ratios were unfair experienced dissatisfaction. The dissatisfaction then motivated them to change the situation in the direction of greater equity. Inequity, in terms of the underpayment of employees, could have negative consequences for an organization such as low productivity, turnover, grievances, absenteeism, and dissatisfaction. Cherrington believed that the equity theory could be applied to most people in most situations and that men tended to use the social comparison more than women.

E. Educational Research Based on Motivation and Job Satisfaction

In a study which investigated the job satisfaction of junior high school teachers, Bienenstok and Sayres (1963) sought information that would be of value to administrators with regard to the recruitment and maintenance of teaching staff. They assumed that the features of this kind of study would be pertinent to all levels of education and to other occupations to a lesser degree. The methodology consisted of a qualitative interview approach with a quantitative questionnaire. Open ended and direct
questions were used to cover leads adequately. The questionnaire, which was based on
interview responses, was pretested on forty-six junior high school teachers.

As a whole, the teachers preferred a more academically oriented teaching
situation and perceived extra class duties as detrimental to a teacher's professional
standing. They were dissatisfied with their status and believed that they would be unable
to satisfy their professional aspirations under these conditions. Forty percent of the
teachers were dissatisfied with the level of remuneration. Class size, extra class duties,
teaching materials, teaching load, and intellectual stimulation were cited as dissatisfiers
for approximately one third of the respondents. A limited number of teachers recorded
dissatisfaction with interpersonal relations with either parents or pupils.

Demographically, there were differences in the Bienenstok and Sayres study.
Men were dissatisfied with salary, supervisory assistance, respect, and recognition
granted to them by the community and their superiors. Women were unhappy about the
teaching load. Younger teachers complained more than older teachers about salary, lack
of intellectual stimulation and supervisory assistance. Older teachers were found to be
dissatisfied with the teaching load. Some of the characteristics that identified the
dissatisfied teacher included teachers with over fifteen years of experience, teachers
that taught in city schools, teachers that were married, those that taught in grade nine to
twelve systems, teachers of only grade nine, and those that taught academic subjects.
Dissatisfaction tended to increase with age, family responsibility, and prolonged
Teaching experience. Suburban teachers were more satisfied than those who worked in
city or rural schools. The lack of adequate teaching materials was found to be a
particularly stressful factor in city schools. Teachers, by and large, felt discontent with
the dual role of the responsibility for academic achievement and the personal adjustment
of the students. They were further frustrated by inadequately oriented educational materials, changing teacher practices, and parental pressures.

Sergiovanni (1966) conducted a replication of Herzberg's study with teachers in New York State and concluded that the factors contributing to job satisfaction were achievement, recognition, work itself, responsibility and possibility of growth. These factors were referred to as high attitude sequences. Secondary teachers responded more frequently to responsibility and pride as sources of job satisfaction. The factors which contributed to teacher dissatisfaction included lack of advancement, salary, interpersonal relations (subordinates), interpersonal relations (superiors), interpersonal relations (peers), supervision, school policy and administration, working conditions, security, unfairness, status, and personal life. These factors were referred to as low attitude sequences. Frequent responses toward job dissatisfaction were found in the areas of security and unfairness where the latter was regarded as being the greatest source of dissatisfaction. The most potent factors for feelings of dissatisfaction for secondary teachers were found in interpersonal relations (subordinates), interpersonal relations with parents, and school policy and administration.

Sergiovanni further concluded that the need for recognition appeared to be important to teachers. The sources of recognition were found to be in the form of feedback from principals, supervisors, parents, students, and fellow teachers and in the form of letters, oral statements, gifts, incentives, and committee appointments. Scores for job dissatisfaction increased in the absence of recognition. The satisfaction of the self-esteem of teachers seemed to be the predominant need. The overall dominant need that was found to be the most important to teachers' job satisfaction was achievement.
Sergiovanni found that much of the reward for teaching comes from a feeling of personal success. Sergiovanni interpreted the finding that teachers in the study sample had a high achievement need and this behaviour was consistent with McClelland's Entrepreneurial Role Behaviour. It was also discovered that subgroups, which consisted of male, female, tenured, non-tenured, elementary, and secondary teachers, tended not to differ in their responses to sources of job satisfaction and job dissatisfaction. This was based on the findings which showed that significant differences were found in only three of one hundred and sixty-eight possibilities. The three exceptions were identified in the tenured and non-tenured sub groups.

Sergiovanni was able to draw some important conclusions regarding the study. It was posited that the elimination of dissatisfiers, which dealt with the conditions of work, did not result in teacher job satisfaction. Satisfaction for teachers focused on the work itself and dissatisfaction dealt mainly with the conditions peripheral to the work. The work factors which provided satisfaction could be enhanced if the factors which caused dissatisfaction could be either tampered with or eliminated. Sergiovanni also concluded that the factors which contributed to job satisfaction and factors which contributed to job dissatisfaction were not arranged on a conceptual continuum. Sergiovanni concluded that it was disputable that a satisfied worker is more productive than a dissatisfied worker. It was reasoned that when satisfaction is dependent upon performance in work, satisfaction and productivity are related. Satisfaction could not be separated from performance and was, in fact, dependent upon it. Sergiovanni summed up the performance aspect of the study by suggesting that performance-oriented behaviours could be repeated if it was rewarded in terms of intrinsic personal success and extrinsic recognition for success. These conclusions led Sergiovanni to affirm that the results of
the study tended to support the universality of Herzberg's findings. It was recommended that in further studies it would be helpful to investigate the need deficiencies of teachers to discover their needs operation level.

Brown (1972) was interested in the need satisfaction of administrators in education and used the University of California Management Position Questionnaire to measure it. A stratified random sample of one thousand public school administrators were chosen for the study which included directors, superintendents, assistant superintendents, coordinators, supervisors, and principals. Five need levels were identified and grouped as follows: lower order needs which consisted of security, social, esteem and higher order needs which consisted of autonomy and self-actualization. Need satisfaction was defined as the difference between how much each need an administrator thought was being satisfied and how much should be obtained from the position. Brown believed that information concerning administrators' need satisfaction could be of benefit to individual administrators, job counselors, and school districts in the following ways:

1. By fostering wise decision making about such matters as hiring and promoting,
2. By aiding and developing an adequate reward system,
3. By increasing the feasibility of long range planning in the area of personnel policy,
4. By reducing conflict and conserving valuable organizational energy, and
5. By contributing to administrative theory. (p. 3)

It was also stated that the findings on need satisfaction of business executives could be generalized to educators and that the findings might enable one to better understand the
relationship between an individual and their employment.

Brown's study indicated that age, gender, community type, organizational size, or ethnicity of the administrator did not have an affect on job satisfaction. Higher order needs were found to be the least satisfied with lower level administrators experiencing less satisfaction. A statistically significant relationship was found between an administrators' need satisfaction and job level, minority composition of a school, and between level of education. The status or prestige of the position proved to be the strongest factor affecting the job satisfaction of administrators. It was concluded that the reward system in education was geared toward increased status and not to increased output. Brown added that expenditures on curriculum development were unjustified if administrators were motivated by job status and prestige rather than innovative or creative curricula. Maslow's hierarchy of needs theory was used as a construct for the study and was assessed as being appropriate and useful. It was suggested that any future research should correlate the need satisfaction of employees within the organization with interests outside the formal organization.

Miskel (1972) produced a study concerning public elementary and secondary school teachers and focused in on their work motivation, organizational incentives, job satisfaction, and primary life interests. Since much of the motivational literature dealt with industrial organizations, Miskel was concerned that there was a lack of theoretical formulation describing the relationship between teacher motivation and organizational incentives to work. The study was based on Herzberg theory and included 3,400 randomly selected teachers in Kansas. The results indicated that female elementary and secondary teachers who scored higher on satisfaction were more job oriented, worked in environments where there was a higher potential for personal challenge and
development, experienced less work pressure, had more material resources, and who worked in environments where there was a high tolerance for work pressure. Male elementary teachers who obtained high satisfaction ratings were more job oriented.

Miskel and Heller (1972) used a sample of seven hundred and forty three people consisting of teachers, administrators, and graduate students to seek information about work motivation for the school administrator. The Work Components Study (WCS) questionnaire, based on the theory of Herzberg, was used because it had already demonstrated predictive powers which helped to determine effective potential candidates for industrial managers. Six factors, appropriate for the measurement of work motivation in educational organizations, were identified.

1. Potential for personal challenge and development.

2. Competitiveness desirability and reward of success (salary by merit, keen competition, emphasis on accomplishment).

3. Work pressure tolerance (high work load, taking work home a possibility)

4. Conservative security (need well defined promotion guidelines and job description).

5. Willingness to seek reward in spite of uncertainty versus the avoidance of uncertainty (being fired a possibility or could be a short term job).

6. Surround concern (individuals were concerned with the hygienic aspects of the job) (pp. 8-9).

Desirable people for these positions were targeted and these people placed an emphasis on intrinsic factors (motivators) rather than extrinsic factors (hygienes) about the job.

Conway (1973) studied the effects of participative decision making and
perceptions of an organization for teachers, principals and vice-principals in a population base that included 11 secondary schools and eight districts in large cities, suburban and rural settings. The subjects for the study were randomly chosen. Conway discovered that morale or satisfaction or the perceptions of the organization were related to the level of involvement that an individual prefers rather than on the basic function of involvement. Due to an aging teacher base, a trend to increase the involvement of younger teachers was discovered and this was viewed as being counter productive to morale and satisfaction. Administrators were advised to be sensitive and look for opportunities which would enhance the interest and participation of educators.

Gregorc and Hendrix (1973) believed that administrators needed to develop a motivational system for their teachers by finding which factors would induce the most effective means of need satisfaction. The authors proposed that since the regulations of teachers was tight, recognition was infrequent, promotion was not possible without leaving the classroom, and merit pay was not widely used, motivational factors of the higher order needs according to Herzberg motivational theory was necessary. These factors included recognition from others, satisfaction from successful work, responsibility for one’s work, opportunities for change, and increased responsibility. The lower level needs, or hygienic factors, which consisted of adequate salary, competent supervision, job security, opportunity for personal growth, and good interpersonal relations on the job, would only bring a worker to a point of motivational readiness.

Wickstrom (1973) studied a random sample of teachers in Saskatoon and also found that achievement, work itself, responsibility, and interpersonal relationships contributed to job satisfaction. Lack of achievement, school policy and administration, work conditions, and adverse effects on one’s personal life were identified as the
elements that contributed to dissatisfaction.

Derevensky and Mitchell (1975) were interested in obtaining information about the influence of class size and school personnel on the development and implementation of curriculum in elementary schools in the inner city of Montreal. Data was collected from principals, coordinators, superintendents, and teachers through a questionnaire which displayed some interesting information about the nature of the work environment. Many teachers were unhappy about particular aspects of their job. The grievances included: student behaviour, disagreement with school administration, number of pupils in class, lack of materials, and lack of leadership concerning curriculum. While morale was low, other teachers, who were fewer in number, reported satisfaction about the rewards of the job, the interest of the students, the climate of the school, and the opportunity to have input into curriculum development and improvement.

Sergiovanni (1975) looked at the state of teaching and saw that the job satisfaction of teachers was the main concern in the climate that existed. Schools were experiencing decreasing teacher turnover or increasing retention rates. This lack of change or mobility in the job was seen as a major problem for the satisfaction of teachers. Sergiovanni cautioned that during a period of teacher surplus, declining student enrollment, and economic slowdown, teacher turn-over would be less likely once they gained employment. This type of climate could leave the profession with teachers who would stay longer than they might have otherwise. It would become of prime focus to keep teachers effective as interested, growing, and highly motivated individuals. Sergiovanni concluded that teachers who were dissatisfied with their job were now staying for the wrong reasons. Having little chance for movement or job change, educators who simply attempted to survive could cause adverse effects on the
school and the students.

Sergiovanni felt that administrators maintained the task and obligation to make the motivation and internal commitment of teachers a high priority. One method that the administrator could use to enhance the intrinsic motivation of teachers was through job enrichment where the possibility for experiencing important and meaningful work was made available. This was quite different from job enlargement where additional and perhaps meaningless tasks were used to supplement the job. In such a scenario, it was hypothesized that it was possible that people would seek satisfaction outside work in community activities or with a hobby. The place of work, according to Sergiovanni, seemed the more natural place for the professional to satisfy the needs of esteem, competence, achievement, autonomy, and self-actualization.

In a paper that was presented at the annual meeting of the California Educational Research Association, Mitchell (1976) suggested that collective bargaining could have an impact on teacher motivation. It was recommended that the rewards system that was in place for teachers be studied to discover which of the factors was able to be affected by collective bargaining and which would ultimately enhance teacher satisfaction. Mitchell found eight types of rewards that were available to teachers: wages, salaries, and fringe benefits; stable and comfortable working conditions; advancement possibilities; recognition for one's work; a sense of personal competence; a sense of stimulation and personal growth; satisfying interpersonal relationships in the work environment and a sense that one's work is meaningful or important to society. It was concluded that only those factors which were extrinsic in nature could be affected by collective bargaining methods.

One of the critical problems faced by educational administrators, according to
Oscarson & Finch (1977), was personnel motivation. They believed that in order to be successful at employee motivation, one must be cognizant of the fundamental theories and various methods of motivation. The theories of Maslow and Herzberg were employed to study vocational education personnel. They found that good administrative and supervisory practices included the taking part by employees in planning procedures which increased intrinsic job satisfaction. These practices included participation, recognition, incentives, mini-grants, field experiences and training. In-service programs were effective because they involved the teacher, identified the needs of the teacher, and provided support at the peer and administrative levels.

Holdaway (1978) believed that it was of interest to educators, trustees, and the general public to learn how teachers felt about their work. An interactionist view of job satisfaction was proposed where satisfaction took place within the realm of three domains. The three domains were comprised of the following views: that job satisfaction was a consequence of a complex interplay between the worker and his job situation, that the determinants of job satisfaction resided within the worker (subjective view), and that the determinants of job satisfaction were positioned within the job itself (intrinsic view). With Maslow and Herzberg theory used as a conceptual framework for the study, a large random sample of Alberta teachers was surveyed and it was observed that achievement, recognition, relationships with students, teachers, and administrators, intellectual stimulation, job security, and the prospect of teaching as a lifelong career promoted job satisfaction. In addition, teachers were most satisfied with the aspects of their work over which they had the most control. Dissatisfaction was derived from aspects of the teaching profession over which teachers, either individually or collectively, had less control. Some of the major sources of this dissatisfaction were the
attitudes of society and parents towards education and teachers, available preparation
time, consultative and decision-making procedures, and methods used in the evaluation
and promotion of teachers. Females were generally more satisfied than their male
counterparts and satisfaction tended to increase with age.

Whiddon (1978) wrote a paper concerning the motivation of teachers. Collective
bargaining was seen both as a stressful factor and a problem which contributed to sound
interpersonal relations. Whiddon stated that satisfied teachers were more productive
than dissatisfied educators and, based on Herzberg's motivational theory, came up with
three educational applications for the paper:

1) The employee needs academic freedom or sufficient control over his job to
realize achievement.

2) The administrator must recognize and reward good performance, maintain
optimal relations with his faculty and distribute responsibilities so all
subordinates can realize success.

3) In delegating responsibilities, the employee's abilities should be matched with
the job (p. 2).

It was recommended that workers be given feedback about their performance, that goal
setting become a consistent part of the motivational strategy and that equity be given due
consideration in all tasks that were to be administered.

Williams (1978) concluded from a Maslow-based study about teacher's needs
that most have had their two lowest need levels satisfied. It was suggested that
administrators should concentrate on the higher level needs of esteem and
self-actualization in order to successfully motivate their teachers. Teachers, like most
workers, were motivated by different things at different stages of their lives, and it was
important to consider individual differences in order to be effective at the practice of need satisfaction. Astute administrators, according to Williams, were people who were cognizant of the differences between individuals and this enabled them to motivate people from one level to the next.

Bess (1979) wrote a paper which discussed the importance of the study of job satisfaction in the teaching profession. While it was acknowledged that much of the literature did not clearly connect worker satisfaction to productivity, it was maintained that studies have shown that dissatisfaction did lead to greater turnover, heart disease, absenteeism, and poor morale. It was recommended that more studies be done in the area of education where the consequences of job dissatisfaction could have a more pronounced effect on work with young people. Bess declared that:

In the long run, for example, young persons who are in frequent contact with faculty who are dissatisfied with their work will not be facilitated in their growth and development toward more educated and mature states, one of the aims of most educational institutions (p. 13).

External incentives were not seen as adequate substitutions for internal satisfactions and it was predicted that most faculty eventually lose their motivation to teach. It was important for them to discover the latent satisfactions that existed in the teaching profession. The study of job satisfaction was believed to be of benefit to organizations because the potential for organizations to meet their goals would be enhanced thereby increasing the effectiveness of the organization.

Miskel (1979) surveyed junior high school and higher education faculties with an open-ended questionnaire to gather information about the predictors of teacher job satisfaction and effectiveness. It was hypothesized that expectancy work motivation,
individual attitudes toward work, and structural and environmental components would have an effect on work motivation. It was found that job satisfaction was predicted for both groups by expectancy motivation (the outcomes a person perceives as desirable and the belief that these outcomes are attainable), voluntarism, central life interests, and similar job assignment variables. Expectancy motivation and complexity factors were also predictors of perceived job performance. Educator job satisfaction came from the anticipation that successful performance would lead to outcomes that were deemed to be desirable by the individual. The perceived freedom to modify the job situation and work attachment were also necessary factors for educator job satisfaction. From the findings of this study, Miskel suggested that there was a need for additional theory and research on educator work motivation, attitudes, and performance.

Thompson (1979) wrote a paper that dealt with the issue of teacher motivation by discussing educational literature about the subject and then interviewing practicing educators. The motivational theories of McGregor, Maslow, Herzberg, and Deci were also examined and several strategies were offered to enhance the motivation of teachers. Thompson saw intrinsic motivation as being more effective than the manipulative form of extrinsic motivation to increase teacher motivation. Teachers desired to complete work for its own value rather than for external rewards. Administrators had an important role to play in the motivation of teachers by helping them to develop their classroom skills, set learning goals, assess achievement, and to provide feedback, praise, recognition, stimulation, and support. Administrators needed to consider each teacher as an individual with individual needs and it was suggested that they foster a climate of collaborative decision-making in order to further the prospect of work motivation.
Calfee and Pessirilo-Jurisic (1980) took a close look at the state of California's system of education where during a short period of time, sweeping changes had occurred with regard to educational funding. Through government action, property-based tax revenue was reduced and school boards were forced to maintain programmes on the budgets of years passed. The equity of spending, declining enrollment, mainstreaming, and performance of local schools were items of specific interest and sources of unhappiness for taxpayers. On-site interviews were conducted and information was gathered from a sample of teachers, principals and vice-principals, and administrators from elementary, junior and senior high schools. Both teachers and administrators reported dissatisfaction because they felt that they were working harder than ever, under worsening conditions, and for fewer rewards. A decline in the number of physical resources and human resources were cited as some of the factors which led to the pessimistic view of the future and to feelings of dissatisfaction. Many teachers indicated that they were planning to leave the profession because they saw no opportunity in the future to realize the professional and personal goals that motivated them to enter into education in the first place.

Carey (1980) was concerned about the motivating and dissatisfying factors that existed in the workplace for educational administrators in California. Carey found few studies that investigated educational administration job satisfaction and pointed out that "since these persons have little or no contact with pupils (which was identified as one of the highest sources of motivation and satisfaction in all studies done with teachers), it is important to determine what the motivational factors are for this group of educators" (p. 5). A critical incident instrument based on the theory of Herzberg was used in this study which garnered a ninety-five percent response rate from a sample of one hundred.
The major motivating factors included recognition, achievement, and responsibility and the major dissatisfying factors included department policy and administration, supervision-technical (lack of), peer interpersonal relations, and supervisor interpersonal relations. Similarities were discovered between teachers and administrators concerning job satisfaction. Both groups felt that good interpersonal relationships of all kinds (peers, field, pupils, and supervisors) were important determinants for job satisfaction. The absence of these factors produced dissatisfaction. Advancement and salary were not important for producing job satisfaction. It was suggested that administrators should implement participative management techniques (shared decision-making) in order to promote the goals of the organization which would become employee goals as well.

A study which focused on the differences in job involvement, satisfaction, and motivation between Ontario elementary teachers and secondary teachers was done by Knoop (1980). Several personal variables were analysed including age, sex, marital status, education, overall experience, nonteaching experience, present school experience, income and locus of control. Three structural variables also formed part of the analysis and they included size of school, location of school, and hierarchical position. Overall job satisfaction, decision-making, and supervision were important topics of interest. The results showed that three variables had a positive effect on job involvement for both groups; job motivation, job satisfaction, and marital status (those that were single or divorced). Secondary teachers who were involved in decision-making were satisfied with the supervision, were better educated and became more involved in the work place. For all teachers, satisfaction and motivation were the variables that had a direct positive effect on job involvement. The notion of the feedback
variable was suggested to explain that it was possible that job involvement may have caused job satisfaction and motivation. The personal factors did not have a positive effect on satisfaction, motivation, and involvement. The job or environmental factors had a positive effect.

Peterat (1980) surveyed one hundred and ninety home economics teachers in Alberta by studying job satisfaction, self-esteem and demographic data. It was discovered that the main sources of job satisfaction concerned freedom to select teaching methods and subject matter, relationships with students, administrators and other teachers, size of classes, and salary. While a high positive correlation was found between overall job satisfaction and self-esteem, demographic data was found to be a good indicator of job satisfaction. Peterat also found that teacher aides, preparation time, and the physical conditions of the classroom as well as in-service and pre-service education caused dissatisfaction. It was interesting to note that items that caused dissatisfaction tended to be controlled by persons other than teachers in the educational system. Peterat suggested that satisfaction could be expected to alter during an individual's lifetime as one's needs, expectations, and aspirations altered. The sources of job dissatisfaction found in the study had implications for government, universities, administration, and home economics teachers themselves and Peterat advised that this would require action on their part.

Chisolm, Washington, and Thibodeaux (1980) used a need satisfaction questionnaire to determine the need deficiencies of teachers and administrators from six school districts in the southwestern part of the United States. Using the Maslow theory of motivation as a framework for the study, the results revealed that males were most deficient in esteem needs and females in autonomy needs. Administrators experienced
strong job satisfaction and were most deficient in self-actualization needs. They also had fewer deficiencies than teachers in all need categories while teachers were most deficient in esteem needs. Administrators paralleled teachers by experiencing a need deficiency in the area of autonomy.

Using Maslow's hierarchy of needs as a basis for the study of teacher satisfaction and mid-life crisis, Cardinell (1981) hypothesized and concluded that a teacher's commitment to the profession surmounted their sense of satisfaction from life and work and that crises developed as they moved through developmental stages. The mid-life concept appeared to be a universal transition for most professional adults as one reflected on their opportunities missed, career, and status. The burnout hazard years were designated as beginning at approximately thirty years of age, peaking at forty years, and concluding at about fifty years of age. While commitment to work was found to be highest at age forty, satisfaction was at it lowest. Cardinell deducted from the information gathered that the relationship between commitment and satisfaction at mid-life were a normal, developmental, and predictable stage in adult development.

Erlandson and Pastor (1981) measured the strength of higher order needs as opposed to lower level needs of teachers by using the motivational theory of Maslow as a foundation for the work. Two thirds of the teachers recorded a predominance of higher order needs which was found to be greater than the scores obtained for industrial workers. Teachers who experienced the highest order need strengths were the least satisfied with their work and this was attributed to the lack of need satisfaction in the educational workplace. Schools, argued the researchers, were good at meeting lower level needs. It was recommended that administrators provide an environment conducive to higher level need satisfaction by providing teachers with more freedom and
independence in their work.

Farrar (1981) produced a study which sought to determine which manipulable extrinsic incentives existed in education to motivate teachers to become superior teachers. A questionnaire was distributed to elementary and secondary teachers and administrators from New York state public schools and a 75 percent response rate was determined. Teachers saw job security, interpersonal relations with staff and students, use of professional time, and their family or home life as important outcomes from the job. Three performance motivators, where teachers scored the highest and secondary administrators perceived as being the only three considered to be effective for teacher motivation were identified as recognition for superior teaching, insurance, and cost of living allowance. Annual salary increments were particularly popular with secondary teachers, however, it was suggested by these teachers that it be related to performance. A period of economic recession and high inflation were suggested as being possible factors for these outcomes. It was determined that administrators had the potential to manipulate the variables of recognition and equity items such as reward, increment, or merit pay for performance-based work.

Schambier (1981) presented a paper in Anaheim at the National Adult Education Conference and suggested that hierarchies that were designed in the form of the pyramid, or top down format, were inappropriate for education during the time of the writing of the paper. This type of bureaucratic structure was alienating teachers and causing dissatisfaction and burnout because the decisions were made by administrators and were expected to be carried out by the teachers, rather than being made by the teachers or in collaboration. Teachers were also voicing their need for professional autonomy. McGregor's Theory X (humans are basically lazy) was used to describe the pyramid
format and it was proposed that the time was right to employ the use of the principles of Theory Y (that humans needed to pursue excellence and desired to self-actualize). It was suggested that moving toward a flatter pyramid where decisions were made in cooperation and authority and responsibility were shared would improve the climate of satisfaction.

The satisfaction of hygiene and motivation needs of teachers who had resigned from teaching and teacher burnout were the topics of a study performed by Frataccia and Hennington (1982). Thirty seven former teachers responded to two ten-item questionnaires that were based on the hygiene-motivation theory of Herzberg and the motivation theory of Maslow. Teachers were found to be dissatisfied with all of the hygiene components that were presented. The hygiene components included security and social needs, company policy and administration, supervision, salary, interpersonal relations, and working conditions. Concerning the motivation component, teachers listed dissatisfaction with recognition, advancement, and achievement. Teachers declared satisfaction with the work itself and responsibility factors of motivation. It was suggested that the principal take responsibility for providing opportunities to satisfy the needs listed as many of them were within the domain of an administrator's work.

Kaiser (1982) suggested that teachers who had remained in the profession for several years had learned to cope with an environment which failed to meet their professional and personal needs. Some had coped by mentally dropping out and resigning themselves to the status quo. This type of environment caused teachers to be less enthusiastic about their students, the curriculum, their teaching, and their professionalism. Kaiser argued that:

Whether teachers are motivated or burned out depends on motivational factors
specific to the needs of teachers and the presence or lack of the inducements
specific to the job of teaching. Educators may lack motivation or feel burned-out
if motivational factors that meet specific needs are not addressed. (p. 17)
It was imperative to Kaiser that the needs of the teachers should be met in order to
insure effective teaching and student learning.

Kaiser believed that teachers salaries provided for the basic needs of the first
level of Maslow's hierarchy and that the safety and security needs were fulfilled as well
with the reasonably safe society that we live in. Kaiser also believed that poor pay for
teachers was often offset by retirement packages, medical benefits, and tenure. Kaiser
suggested that school systems attempt to satisfy the third, or belonging stage, by
providing good working conditions and human relations. It was found that teachers, more
often than not, sought to satisfy these needs outside their work environment with church
groups, sports, and clubs because the work place did not meet these needs. The result,
according to Kaiser, would be that of a teacher who would not be dissatisfied but not
motivated either. The meeting of the lower needs was looked upon as an innoculation
which could temporarily prevent disease but could never make anyone healthy. Kaiser
found that the Herzberg Hygiene-Motivator theory was most appropriate for the
explanation of the meeting of teacher needs.

In order to achieve job satisfaction, Kaiser recommended that school boards must
provide a possibility for advancement or increased responsibility. It was made clear that
it was important to distinguish between increasing the number of tasks and increasing
responsibility. Only upon the satisfaction of status, ego, and self-actualization needs
could the teacher be motivated. Personal recognition for achievement and recognition for
a job well done were cited as being excellent motivators.
There is absolutely nothing that can be done to motivate anyone with an uninteresting job, a job with no chance for advancement, a job allowing no sense of achievement, a job affording no recognition for excellence in performance, and a job with little more than child-tending responsibility. Therefore, one would assume that teachers deprived of motivating factors would meet with frustration at the jump from stage three to stages four and five. Granted there are few teachers who are able to fuel their own motivation for needs fulfillment. And some school districts provide a minimum amount of motivating factors to allow teachers to reach self-actualization where the greatest amount of creativity occurs. However, an increasing number of teachers are frustrated -- and left with nothing to motivate them to improve their performance. They level off or leave the teaching profession. Many of those who stay are accused of actually lowering their performance levels. (p. 18)

Kaiser concluded that to prevent "mental dropout" or burnout, it was the responsibility of the school districts and administrations to provide the proper motivational factors in the workplace to increase satisfaction and performance.

Kreis and Milstein (1985) studied the relationship between the perceived fulfillment of needs and the degree of job satisfaction for urban high school teachers in a major school district in the northeastern U.S. They hypothesized that teachers who perceived that none of their needs were fulfilled would be dissatisfied with teaching, those with the lower level needs fulfilled would be neutral, and those that perceived that their higher level needs were met would be satisfied. The Job Satisfaction Index by Brayfield and the Need-Satisfaction in Work Survey by Schaffer were used to measure the relationship sought and the results of the study indicated that a significant
relationship existed between job satisfaction and needs fulfillment.

Kreis and Milstein also discovered other unanticipated results. Over one third of the subjects of the study indicated they felt a fulfillment of higher level needs from their work without having first achieved job-based fulfillment of the lower level needs. This led to a secondary line of reasoning that teachers could seek and find fulfillment of some of their needs outside the workplace. Kreis and Milstein concluded that although needs may be hierarchical, they may not necessarily be met in specific order to achieve satisfaction. "Rather, needs satisfaction will likely be sought in different settings and in different ways by different individuals" (p. 76). Satisfaction was likely when a teacher perceived as getting through a job matched what they perceived as needing from a job. Teachers were faced with the difficulty of achieving satisfaction with factors in the workplace such as disciplinary activity and trying to cope with unsympathetic bureaucratic structures. It was not surprising that they may have turned outward to meet their needs.

Kreis and Milstein suggested that the senior work force in teaching have reduced their expectations of what work will offer and have become preoccupied with the fulfillment of their own needs, such as retirement benefits. Younger teachers will probably find little sympathy for their needs, particularly if there are fewer of them and they find the need for affiliation strong. Kreis and Milstein did imply that satisfying teachers' needs was complex, but essential to improving the performance of schools and concluded that educational leaders must be sensitive to individual teachers' needs and must, when possible, respond to those needs. They further suggested that the payoff of rejuvenated teachers and better educated students would make the required effort worthwhile.
Ratliff (1985) used the Work Motivation Inventory, developed by Hall and Williams, as the instrument in a study to measure the differences between the perceived need deficiencies of Tennessee secondary teachers who were involved in collective negotiations and those who were not. The differences between the teachers and industrial, government, and retail workers were also compared. It was discovered that teachers had significantly higher physiological, safety, and love and belonging needs and significantly lower esteem and self-actualization needs than industrial, government, and retail workers. Ratliff believed that the problem of how to satisfy various need deficiencies was becoming increasingly important. Ratliff (1988) concluded that:

teachers are focusing more attention on satisfying the hygiene factors than the motivator factors. More accurately, teachers appear to be caught in a motivator-hygiene conflict. The behaviors required to satisfy lower-level needs are incompatible with those required to satisfy higher-level needs. As long as teachers value the goals associated with lower-level needs, they are likely to be torn between these and the goals associated with higher-level needs. (p.15)

Ratliff made a number of recommendations and concluded that school systems should provide increased salaries, better working conditions, more leisure time, minimum physical strain, better fringe benefits, clearer performance standards, opportunities for interaction with colleagues, harmonious interpersonal relations, acceptance, and the feeling that one belongs to the organizational family. These conditions would allow the teacher to move up past the lower-level needs and on into the more potent higher-level needs. It was also suggested that school systems provide teachers with opportunities to satisfy their esteem and self-actualization needs. This would motivate teachers to contribute their best in return for rewards and recognition and would also provide them
with more challenging and meaningful work. Ratliff recommended that teachers should be given the necessary freedom to be creative and to acquire a sense of personal growth, achievement, and satisfaction through the work itself. The satisfaction of these higher-level needs would motivate a teacher's creative and innovative sense which was viewed as being badly needed in the school systems.

Thom (1992) surveyed one hundred and eighty graduating faculty of education students concerning their motivation to teach. A questionnaire was administered and information was gathered regarding their background, awareness of demands and limits of the teaching profession, extrinsic factors as motivators to teach, and intrinsic factors as motivators to teach. They discovered that intrinsic motivators were the dominant determinants. These determinants included the honour in being a teacher, the perception of teaching as a caring profession, strong dedication, and the opportunity to utilize creative skills. Extrinsic motivators such as good pay, opportunity to make more money elsewhere, summers off, and a perceived shorter working day scored much lower on the motivation scale.

F. Holland's Theory of Vocational Interests and Personality

Holland (1973) formulated a theory of vocational choices and preferences that was the result of experiences as a vocational counselor and as a reader of vocational literature. After writing a journal article pertaining to the topic of vocational choices, Holland modified and revised the theory and suggested that the theory had some concrete applications as a theory of careers. Holland stated that "the theory is now more properly a theory of careers, for it deals more completely and successfully with vocational problems throughout a person's life: vocational choice, work history, job changes, occupational achievement" (p. vii). The theory was based on the rationale that specific
personality types could be identified through the collection and analysis of data and from this, one discovered information about different types of persons and their environments. Holland was concerned with the attainment of vocational satisfaction for people at various stages of their careers and lives.

Holland's vocational theory was based on four assumptions. For the first part, people were classified into six personality types: realistic, investigative, artistic, social, enterprising, and conventional. A person was identified as being a certain personality type if they exhibited personal traits or behaviours that coincided with these descriptors. The realistic type possessed mechanical abilities but was lacking in social skills. Examples of the kinds of jobs that interested this personality type consisted of farmer, electrician, and mechanic. Holland (1979) used the following descriptors for this type: conforming, frank, honest, humble, materialistic, natural, persistent, practical, modest, shy, stable, and thrifty. The investigative type was interested in occupations such as chemist, biologist, and medical-laboratory technologist. They were mathematically and scientifically astute but were lacking in leadership skills. They were described as being analytical, cautious, critical, curious, independent, intellectual, introverted, methodical, modest, precise, rational, and reserved. The artistic type of personality was drawn toward a career such as composer, musician, writer, and interior decorator. This type lacked clerical skills but had writing, musical, and artistic ability that was enhanced by the following traits: complicated, disorderly, emotional, expressive, idealistic, imaginative, impractical, impulsive, independent, intuitive, nonconforming, and original. Social types liked jobs such as teacher, counsellor, clinical psychologist, and case worker. They were gregarious and talented and lacked mechanical and scientific ability. The social type was
found to be convincing, cooperative, friendly, generous, helpful, idealistic, insightful, kind, responsible, sociable, tactful, and understanding. Enterprising people were interested in occupations such as manager, salesperson, business executive, and buyer. While often lacking scientific ability, they had leadership and speaking skills. They were characterized as being adventurous, ambitious, attention-getting, domineering, energetic, impulsive, optimistic, pleasure-seeking, self-confident, sociable, and popular. The final, or conventional type, included conventional jobs which included bookkeeper, banker, financial analyst, and tax expert. While maintaining skills in clerical and mathematical reasoning, they lacked artistic ability. This personality type was identified with the following descriptors: conforming, conscientious, careful, conservative, inhibited, obedient, orderly, persistent, practical, self-controlled, unimaginative, and efficient.

The second portion of Holland's vocational theory dealt with several types of environments which used the same six descriptors as the personality types. An artistic environment was dominated by or contained a large percentage of people who were of the artistic type. People tended to surround themselves with others who shared common interests and problems which would allow one to assess the environment from two points of reference. The first consisted of the identification of the environment being assessed and the second included the identification of the personality types that existed there. By counting the number of different types in an environment, a distribution of types was calculated then converted to a percentage of the total number of people in the environment.

The third assumption of the vocational theory dealt with the predisposition by individuals to migrate toward environments that matched their personality make-up.
Holland explained this by claiming that people searched for environments that would let them exercise their skills and abilities, express their attitudes and values, and take on agreeable problems and roles. This explained, in part, how people proceeded to reach goals, made vocational choices, and moved toward environments that satisfied their needs. The fourth assumption dealt with a person's behaviour in an environment. Holland (1973) concluded that:

a person's behavior is determined by an interaction between his personality and the characteristics of his environment. If we know a person's personality pattern and the pattern of his environment, we can, in principle, use our knowledge of personality types and environmental models to forecast some of the outcomes of such a pairing. Such outcomes include choice of vocation, job changes, vocational achievement, personal competence, and educational and social behavior. (p. 4)

The degree of consistency or relatedness between the factors was further analysed and a set of secondary assumptions emerged. It was found that some individuals possessed characteristics of more than one type of personality and were sometimes attracted to environments that were not logically suitable. The first secondary assumption was that of consistency. Some personality profiles were more related than others. For example, a realistic-investigative person should be more predictable than a realistic-social person.

The second, or differentiation assumption, predicted the possibility that some environments were more easily defined than others. In the extreme, an environment may be saturated with one clearly definable personality type or a person may exhibit a single personality type and little of the others. At the other extreme, a person resembled several types of personalities. The environment, similarly, was made up of equal
numbers of identifiable group types. This was regarded as a poorly differentiated scenario.

The third secondary concept was that of congruence. Congruence was found when the personality descriptor matched with the environmental descriptor. An artistic type would flourish in an artistic environment because there would be opportunities for need fulfillment. Incongruence resulted when the reward system did not meet the needs of the individual. Holland (1979) explained this by stating:

For example, if you are a social type, you will probably like a social job environment most because social jobs involve activities, values, abilities, and self-views that you have or prefer. In general, people who find jobs that match their type are expected to be most satisfied and successful: investigative types fit investigative jobs best, enterprising types fit enterprising jobs best, and so on. (p. 4)

If an artistic type sought rewards and fulfillment in a conventionally oriented environment, they would be frustrated with regard to need satisfaction.

The fourth assumption, described as the calculus model, provided a mathematical hexagonal model "in which the distances between the types or environments are inversely proportional to the theoretical relationships between them" (Holland, 1973, p. 5). Holland believed that many of the variances in potential relationships could be accounted for by using the hexagonal model and that it provided a basis for the analysis of the internal relationships (see Figure e). The closer the personality types were to each other on the hexagon, the more closely related they were. A person was considered to have consistent or compatible interests if the scores of their top two types were next to each other in the hexagon. These people were considered to be more predictable and have
FIGURE e

HEXAGON MODEL - HOLLAND'S THEORY OF CAREERS

REALISTIC

CONVENTIONAL

ENTERPRISING

INVESTIGATIVE

ARTISTIC

SOCIAL


Toronto: University of Toronto.
a stable career that was limited to one category of work. The artistic personality, for example, was considered to be somewhat compatible with the investigative and social types, incompatible with the enterprising and realistic types, and highly incompatible with the conventional type. The same rationale applied to job as well as personality profiles. The hexagon was used to estimate the degree of fit between a person and a job or between a person and each of several proposed jobs. The secondary concepts had two purposes: "to improve the predictions obtained by the main concepts and to substitute degrees of consistency, differentiation, and congruence for the all-or-none definitions of the same concepts" (p. 5).

Holland (1973) suggested that a number of principles acted as prerequisites for the development of typology and environmental models. The six principles were defined as follows:

1. The choice of a vocation is an expression of personality.

2. Interest inventories are personality inventories.

3. Vocational stereotypes have reliable and important psychological and sociological meanings.

4. The members of a vocation have similar personalities and similar histories of personal development.

5. Because people in a vocational group have similar personalities, they will respond to many situations and problems in similar ways, and they will create characteristic interpersonal environments.

6. Vocational satisfaction, stability, and achievement depend on the congruence between one's personality and the environment (composed largely of other people) in which one works. (pp. 6-10)
It was reasoned that one could achieve a reliable personality profile of an individual by assessing the profile in some quantitative manner. By using the six personality descriptors in conjunction with the six principles previously listed, typological formulations could be derived. Holland explained the use of these formulations in the following manner:

- to interpret interest inventories, to clarify the divergent occupational choices of people in conflict, to interpret work histories, to predict the outcomes of proposed person-environment interactions, to explain the origins of interests, and to explain the occurrence of adaptive and maladaptive vocational development (p. 88).

With these principles in mind, Holland believed that the goal of vocational guidance was to help people find jobs they could do well and they found to be fulfilling.

The Vocational Preference Inventory was developed by Holland (1985) to assess a person's feelings and attitudes about various kinds of work. Individuals were asked to read through a list of one hundred and sixty occupations and indicate whether the occupation was of some interest to them. The Vocational Preference Inventory (VPI) measured personality qualities in terms of eleven personality traits and examined six career clusters. The eleven personality traits consisted of realistic, investigative, social, conventional, enterprising, artistic, self-control, masculine-feminine, status, infrequency, and acquiescence. Holland listed some key characteristics for high scores on the personality scales. High realistic people were defined as being hardheaded, practical, mechanically and technically inclined, asocial, frank, honest, and having poor interpersonal skills and insight. High investigative types were shy, reserved, radical, independent, planful, achieving, curious, and had a predisposition for scientific and
mathematical endeavours. High artistic types were imaginative, expressive, creative, open, emotional, sensitive, introverted, and maintained a philosophy of life with broad interests. Those who were high in the social scale were sociable, sensitive, extroverted, warm, understood others, and wanted to help others. High enterprisers were dominant, enthusiastic, extroverted, energetic, sociable, impulsive, and adventurous. High conventional types were persistent, practical, valued hard work and achievement, and analytical and conforming. Those who were high in self control were cautious, insecure, passive, repressed, and not rebellious. The high masculine/feminine person was shrewd, oriented toward traditional male roles, active, and unsociable. Those with high in status were sociable, sensitive, expressive, wanted to be important, adventurous, and concerned themselves with prestige and power. High infrequency types lacked imagination, were low in aspiration level, had few claimed competencies, were introverted, and dependent. The high acquiescence person was dominant, enthusiastic, impulsive, cheerful, conventional, and had many interests. The six career clusters, taken from the first six personality traits, were comprised of the realistic, investigative, social, conventional, enterprising, and artistic personality types.

Holland felt that the classification of vocational preferences had some applications in the organizational arena. Valuable information could be obtained on matters concerning problems with staff development, transfer, promotion, and personnel planning. It was felt that useful information could be gathered to assist with recruitment and selection procedures, training programs, analysis and redesign of jobs, improvement of communication and cooperation within and between work groups, and the general formation of personnel policies and practices. Holland believed that the profile obtained from the VPI scores could be used to design a more satisfying job that
would maximize interests and competencies and minimize aversions and deficiencies. By making use of information concerning individual personality patterns, it was thought to be possible to achieve a more effective matching of superiors and subordinates which would create a better working environment.

G. Theory of Vocational Choice and Personality

Abe and Holland (1965) believed that the matching of a student's characteristics with the demands of a particular field of work would lead to an increased probability of job satisfaction and sustained membership in that field. It was posited that incongruencies between the personality traits of an individual and the nature of the work environment could result in feelings of alienation and dissatisfaction and usually to a change of plans. The study, which used The American College Survey and Holland's Vocational Preference Inventory, attempted to describe the personality traits of college freshmen who planned to major in different fields of study. It was determined that a great range of student characteristics influenced the process of making an educational decision and consisted of interests, values, self-conceptions, competencies, achievements, range of experience, and family resources. The students sought those fields which complimented their interests, values, and special talents.

At the annual convention of the American Psychological Association, Weiss (1968) presented a paper which discussed the use of computer assistance regarding vocational counselling and need fulfillment. The assessment of personality or individual differences by the counselor for the client was considered to be an important step toward the obtainment of a satisfying work life.

In vocational counseling the goal, as well as the means, of assessment, is clear:

Assist the counselee in finding a vocation in which he is likely to be both satisfied
and satisfactory. That is, the individual should be assisted to consider those jobs, occupations, vocations or careers in which he will be as happy as possible, and in which others (his employer, primarily) will feel that he is performing to the best of his abilities. It is in these vocational environments that the individual is likely to become maximally adjusted. (p. 3)

It was proposed that the probability of need fulfillment and satisfaction could be measured by evaluating two sets of information. The first would include the assessment of an individual's profile and unique pattern of vocational abilities and the second, the assessment of individual differences in the ability requirements of various occupational environments. This would provide information that could predict satisfaction or dissatisfaction.

Weiss regarded the attainment of need fulfillment as being critical toward the goal of job satisfaction. It order to predict a satisfactory work environment, two sets of information needed to be gathered. The two sets were composed of information pertaining to the assessment of an individual's vocational needs and the reinforcer characteristics of various occupational environments. "Needs are measured as preferences for such things as a job which has steady employment, good working conditions, opportunities for advancement, and the exercise of responsibility and authority" (p. 5). It was felt that a needs and ability profile could be obtained and measured by using a paired comparison format. This individualized synthesis of work personality data had the potential to provide counselors with the possibility to predict job satisfaction and need fulfillment. Weiss further suggested that a particular occupational environment could be modified to meet the needs of certain individuals.

Williams (1972) wanted to determine the relationships among personality
factors, value patterns, and occupational choice, as determined by major area of concentration of male graduate students at the University of North Dakota. Holland's theory of vocational choice was used as the context for this study. Williams found that most of the research that used Holland's Vocational Preference Inventory (VPI) consisted of undergraduate subjects and it was suggested that the VPI should be used in a variety of settings. The results of the study led to the conclusion that when making a vocational choice, an individual searched for an environment that would satisfy personal orientations and needs.

Werner (1977) was interested in determining the applicability of Holland's theory of vocational choice to working women. Werner looked at the relationship of the criterion variables of achievement (salary) and job satisfaction to the predictor variables of homogeneity, consistency, congruency, and role choice. A stratified sample of 348 working women consisting of factory workers, research scientists, teachers, bank employees, managers and supervisors, writers, commercial artists, and interior decorators were chosen for the study. Homogeneity was defined as the difference between the highest and lowest scores on the VPI and it yielded information which led to the conclusion that it did not make a significant difference on any of the sub groups. Consistent women achieved higher salaries than inconsistent women. Congruency (where the work environment and the highest VPI scale were the same occupational type) made no significant difference in salaries or satisfaction. A look at the data revealed that women who were designated with clear role choices made no significant difference on salaries or job satisfaction for the total group and the six sub groups that were represented.

Bass and Ryterband (1979) described job satisfaction in terms of personality. It
was determined that satisfied workers were more inclined to describe themselves as being more sociable, stable, and competent. It was suggested that the satisfaction might be the result of an inclination by the person to be more or less acquiescent. These people tended to agree with and accept statements that they found to be conflicting or contradictory with their beliefs. The satisfied worker was less skeptical and more outgoing emotionally.

Concerning job dissatisfaction, Bass and Ryterband described this type of individual as being disturbed, hostile and continually negative about almost everything. These individuals displaced their aggression by attacking others verbally and by existing as a source of friction in the workplace. They blamed everything and anything for their dissatisfaction. The negative actions were seen as a method for dealing with blocked motivation. The "chronic griper" or "prejudiced personality" would be dissatisfied with their job and would probably increase job dissatisfaction and lower morale in the group with which they would be associated.

Lowman and Schurman (1982) investigated the validity of a shortened version of Holland's Vocational Preference Inventory (VPI). Employees in five federal American organizations in fields such as technology, engineering, housing, health care, a regulatory agency, and forms processing unit were chosen as subjects for the research. It was discovered that support for the validity of Holland's basic constructs and theories were warranted as similar inventories which demonstrated similar scaling characteristics as the VPI in much longer formats boasted much more validation literature. Lowman and Schurman suggested that more studies were needed to expand Holland's concept to organizational settings in a manner to encompass such variables as job satisfaction or turnover of persons of various occupational personality types.
Walsh, Ward, and Woods (1986) used Holland's vocational preference inventory (VPI) and self-directed search inventory (SDS) to discover whether working women in the same occupations were more different than similar. Based on Holland's theory, Walsh et al. hypothesized that the personality types of men and women who entered and remained in the same occupation would be similar. Eighty-eight black and white American women who were not college educated and who were in three of the occupations as described in Holland's VPI were chosen for the study. The respondents were grouped into three of the classification types which included realistic (twenty-six maids), artistic (twenty-six florists and dancers), and social (thirty-six teacher aides). Results from both inventories indicated that black women, when compared to white women in the same occupation, tended to obtain very similar mean raw scores. Simply put, the two inventories were effective in determining that the women in the same occupation, as hypothesized by Holland's theory, were more similar than different.

Wiggins (1987) was interested in comparing information about the effectiveness of paper programmes to the widely used, teacher-staffed, career cluster programmes where students could obtain information about potential careers through textbooks, career briefs, movies, filmstrips, and guest speakers. Although the cluster programme was more popular at the time of Wiggins' study, the paper programmes, which consisted of Crites' Career Maturity Inventory (CMI), the combination of Wiggins' Career Survey (CS) and Holland's Vocational Preference Inventory (VPI), and Holland's Self-Directed Search (SDS) were found to be a more effective approach for obtaining information about an individual's vocational identity, needs, and interests. Holland, Daiger, and Power's My Vocational Situation (MVS) was chosen as the most appropriate instrument for the evaluation of the methods described. Several hundred students were surveyed and
results indicated that the MVS clearly favoured the programs that allowed each student to pursue their own interests instead of being involved in a group study of clusters.

In a study which utilized Holland's Theory and the Vocational Preference Inventory (VPI) to seek information about employed men and women in traditionally female occupations, Walsh and Huston (1988) found that for the VPI social scale, men and women in the same occupations tended to report similar mean raw scores. This could have been due in part to a presumption that men and women chose occupational environments that were congruent with their personality types. Elementary school teachers of both genders scored high on the social scale and the findings of the study led to the tentative suggestion that the VPI could be used for men and women who are considering a social occupation.

Brown, White and Gerstein (1989) suggested that a person's job satisfaction, success, and longevity in a chosen field would be enhanced by the existence of a positive relationship between the demands of the work environment and their personality. By employing Snyder and Gangestad's Self-Monitoring Scale and Holland's Vocational Preference Inventory, they endeavoured to investigate the relationship between an individual's vocational personality orientation and their propensity to self-monitor. Self-monitoring behaviour enabled the individual to evaluate whether they were able to tolerate a mismatch between their personality and their environment. It was discovered that Holland's VPI was an effective instrument for the evaluation of vocational preferences and that the information derived from its use tended to support the notion that high monitors flourished in their work environments because of their ability to adjust their behaviour to the changing conditions of the workplace. These people preferred situations that provided the potential for rewards such as achievement, status,
and prestige. Low monitors preferred to ignore social situations in the workplace and preferred to maintain their personal values, beliefs, and behaviour.

Matkin, Bauer, and Nickles (1993) felt that a relationship existed between personality and a person's vocational choice. They commenced a study with the premise that job satisfaction was enhanced when a worker's personality was congruent with their work environment and job tasks. It was further suggested that a personality profile would provide valuable information regarding competencies, interests, needs, strengths, and values. Matkin et al. used Holland's Vocational Preference Inventory and Nevill and Super's Values Scale to identify personality profiles of certified rehabilitation counselors working in a variety of settings. Results of the study showed that it was important to consider the nature of the work performed in different settings because it was related to a person's personality and needs. Successful vocational selection had implications for job satisfaction since those who were found to be incompatible with their work environment experienced physical problems, emotional illness, or organizational conflict in terms of absenteeism, tardiness, unprofessional conduct, job turnover, decreased productivity, and burnout.

In order to gain a thorough understanding of the nature of work motivation, it was necessary to begin with the foundation of the theory from the work of Maslow and Herzberg through the motivational theorists who have formulated theories based on the behaviour of individuals in the work setting. This was followed with research based on work motivation and job satisfaction in educational settings and was concluded with Holland's theory of vocational choice and related literature of vocational choice and personality. The examination of and movement from general motivational theory to educational motivational theory concerning job satisfaction and personality is essential
for the understanding of an individual's needs and behaviour in the workplace.
CHAPTER III

METHODS AND PROCEDURES

A. Subjects

The population of interest selected for this study was secondary teachers and administrators in an urban setting with a population of approximately 200,000. Information was gathered about each subject specifying age, gender, number of years of work experience, number of years credited toward present pay scale, household income, and position held, specifically, teacher or administrator (see Appendix A). The subjects were selected using a cluster random sampling technique in order to gather data. Since there were relatively few administrators available for the study as compared to teachers, all available administrators (39) received copies of the instruments and the remaining copies (161) were distributed to the selected secondary schools and placed in every second mail slot in the school mailrooms.

B. Instrumentation

The instruments that were used for this study were the Work Motivation Inventory (WMI) developed by Dr. Jay Hall and Dr. Martha S. Williams and the Vocational Preference Inventory (VPI) developed by Dr. J. L. Holland. A personal data sheet was also used to obtain pertinent information about the respondents. The WMI is used to obtain a personal motivational profile addressing the needs actually experienced by individuals in their work environment. The instrument model is based on Maslow’s Needs Hierarchy concept of human motivation and Herzberg’s Hygiene-Motivator model of job satisfaction. It is a self-scoring test that is structured as a 60-item, paired comparison, paper/pencil, self-report inventory for assessing workers attitudes about what stimulates them, the realities about why they work, and their personal levels of job satisfaction.
The WMI is designed to assess the kinds of needs and values that people see as important considerations in making decisions about their work. The inventory can be looked upon as a personal motivational profile. The WMI assesses the physiological, safety, love and belonging, ego-status, and self-actualization need systems as identified by Maslow and refined by Herzberg. Each need level is assigned twenty-four items and each need is paired with every other need several times (see Appendix B). For each item, five points are distributed between the pair according to the degree of concern for each. There are five need levels with twenty-four items for each giving a potential maximum score of 24 x 5 or 120 points for each of the subjects.

To determine the reliability of the WMI, the median co-efficient of stability (test-retest) has been established at .70 over a 6-week time span. Construct validity is high as revealed by Canonical analyses of the instrument which has yielded a correlation of .79 (p < .008). The normative profile is based on the scores of 34,279 individuals (Hall & Williams, 1994).

The Vocational Preference Inventory (VPI) is designed to assess an individual's feelings and attitudes about many kinds of work. Respondents are asked to read a list of 160 career choices and decide by answering either yes or no whether a specified career appeals to them (see Appendix C). Individuals are able to determine those career paths that match their interests and personality. The VPI provides information with regard to eleven personality scales, namely; realistic, investigative, social, conventional, enterprising, artistic, self-control, masculine-feminine, status, infrequency, and acquiescence. From this personality profile, individuals are evaluated in terms of six career clusters (realistic, investigative, social, conventional, enterprising, and artistic). The six career types can be interpreted from the data collected concerning the
personality types previously listed.

The VPI is structured as a 160-item, paper-pencil inventory that can be easily scored by using a single scoring stencil. Respondents can colour in the "yes" bubble if a career interests them and the "no" bubble if it does not. It is recommended that questions be left blank if a person is undecided about a particular career. The internal consistency of the VPI scales is reported to range from .81 to .91 and average .88. Holland (1985) further states that "the VPI scales, as personality scales, have comprehensive data supporting their construct validity from a wide range of populations ranging in age from 15 to 80" (p. 21). Reliability of the VPI ranges from .65 to .98 for college seniors. This rating is considered to be satisfactory.

C. Procedures

The type of study is a Descriptive Research Study which describes the characteristics of a particular population. Descriptive research methods are used to describe in a systematic way, facts and characteristics of a given population of interest in an accurate manner. Questionnaires were used in this study as it enabled the researcher to obtain standardized information from all subjects in the sample in a quantifiable fashion. The design of the study will took the form of an Ex post facto randomized cluster sample followed by two identifiable, subject groups (A-teachers and B-administrators). Once approval was granted for the study from both the Graduate Committee and the Ethics Committee of the Faculty of Education at the University of Windsor (see Appendix D and E), letters requesting permission to pursue the study were sent to the Superintendent of Operations of area school boards to inform them of and obtain permission for the implementation of the study (see Appendix F). A request to meet and discuss the potential study was included in the letter and this was followed-up
with a telephone call. Several meetings with supervisory officers were arranged and the granting of permission ensued.

After permission had been granted at all levels, a telephone call to Teleometrics International was made for the purchase of two hundred copies of the Work Motivation Inventory (see Appendix G and H). Permission was obtained from the Faculty of Education Graduate program to use the VPI. In the interim, contact was made with the superintendents of the school boards to make arrangements for the random selection of cluster samples. Schools from three locations were considered and selected. The three area types consisted of two suburban and one inner city secondary school. Meetings were set up with the school principals and permission was granted to begin the distribution of the instruments. All academic secondary administrators (39) received the instruments along with a data sheet. Academic administrators included the directors of education, superintendents, consultants, coordinators, principals, and vice-principals. A contact person at the school boards was selected to administer the surveys and collect the respondents from the samples. The remaining instruments (161) were placed into every second school mailbox of the secondary teachers of the three secondary schools.

A "Motivation Survey" drop box was placed in the mailroom of each school and board office. The potential participants were asked to complete the questionnaires, place them into the pre-numbered envelope that was provided, and drop them into the motivation survey box located in the staff mailroom. The surveys were then collected from the various sites after school hours by the researcher at approximately three day intervals. Teacher's and administrator's packages contained a cover letter asking them to take part in the survey and included instructions on how to answer the questions (see Appendix I). The surveys were number coded on the cover letter for the questionnaire
(see Appendix J) and on all copies of the instruments to ensure confidentiality, to identify the location of the respondent, and to provide the opportunity for further studies. It will also be used to help identify the location of the respondents who wish to receive a copy of the results. The respondents were also asked to keep the numbered cover letter for their own future use for identification purposes. A follow-up letter was sent after the first two weeks of the date of mailing to remind the subjects to complete the questionnaire and to ask, once again, for support in this endeavour. A final reminder was placed in the mailrooms of the selected schools and board offices one month after the initial distribution of the inventories. The scoring of the inventories took place upon the completion of this phase of the study. The final subject response rate was determined two months after the initial mailing date. The sample for the study included 161 urban secondary teachers and 39 urban school administrators. Respondents included 75 teachers which represented 46.5 percent of the sample and 20 administrators which represented 51.2 percent of the sample. In all, 200 educators were sampled of which 95 responded for a response rate of 47.5 percent (see Table 1). The analyses then followed.

Adjustments were made with regard to the analysis of the data that was collected. The "Number of Years Credited Toward Your Pay Scale" demographic was eliminated from the analysis since the information gathered under this variable was virtually identical to the demographic of Years of Experience (see Appendix A). According to the demographic sheet that was included with the inventory distribution, there were no responses from age group 1 • 20-24 and age group 2 • 25-29. These two groups were eliminated from the analysis. Under the demographic of Family Income Group, there were no responses from the group 1 • -31 (thousands of dollars) and they were eliminated from the analysis. Under the Position (location) demographic,
Table 1
Secondary Teachers and Administrators Selected for the Sample

<table>
<thead>
<tr>
<th>Position</th>
<th>Total Selected</th>
<th>Number of Respondents</th>
<th>Percent of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>161</td>
<td>75</td>
<td>46.5</td>
</tr>
<tr>
<td>Administrator</td>
<td>39</td>
<td>20</td>
<td>51.2</td>
</tr>
<tr>
<td>Sample Total</td>
<td>200</td>
<td>95</td>
<td>47.5</td>
</tr>
</tbody>
</table>
Group 1 • School Board, refers to the administrators who responded from a school board office position as opposed to administrators (principals and vice-principals) who work at secondary schools.

D. Limitations of the Design

There are important considerations to be made with respect to the limitations of the design of this study. The Hawthorne effect is possible because some people received the questionnaire while others did not. This procedure creates the potential for subjects to feel that they have been selected because they are perhaps special in some way. There may be a problem with the implementation of the study because the surveys may have been completed in a variety of conditions in a number of different schools and offices. In essence, the method of the filling out of the questionnaires may not have been performed in a consistent manner where the subjects were able to respond without undue distraction and with concentration. There existed the possibility that the number of questionnaires, if they were returned in minimal numbers, might hinder the possibility of generalizing the results. Due to the fact that a cluster sample is not a true randomization of the population, it may be difficult to obtain suitable numbers of representative samples of all sub-groups to be investigated. This did occur, as mentioned earlier in this study, where some of the subgroups and categories initially included in the demographic sheet were eliminated.

There was a possibility for a problem with trust in the confidentiality of the procedure that could in turn limit the number of respondents. At the time of the implementation of the study, the subject matter could be considered to be a sensitive issue in Ontario and some recipients of the questionnaire may have chosen not to participate in the study if they anticipated that there was any duplicity in what was
being measured. The fact that the study was being carried out by a member of one of the school boards being studied may have had an effect on the attitudes of the subjects as to the real intentions of the study.

The researcher of this study will not attempt to generalize beyond urban educational populations. Since there was no pretest, it will be difficult to determine if certain events caused some of the results recorded. To provide a basis for further study, subjects were assigned numbers so that replication would be possible at a future date in an attempt to measure specific variables.

There may have also been a threat to internal validity because it was difficult to control or standardize the conditions under which the study took place. The responses were limited to two questionnaires and a personal data sheet. This does not leave room for more direct or anecdotal personal responses which could have provided more insight into the reasons for feelings of job satisfaction, job dissatisfaction, or need strengths. The length of time required to complete the three items may have caused individuals to decline to participate or to withdraw from the study. The researcher of this study measured the current state of job satisfaction and vocational preferences for teachers and administrators and only in the age, experience groups, and other demographic information as defined in the personal data sheet.
CHAPTER IV
ANALYSIS OF RESULTS

A. Data Analyses and Presentation

This study examined the relationship between the work environment and educators. The independent variables in this study consisted of demographic information such as position (teacher or administrator), teaching location, age, gender, years of experience, and household income. The independent variable was also represented by the measurement of the eleven personality profiles as outlined in the VPI (Holland's theory of vocations). Both sets of independent variables were used to investigate if there was a relationship with the dependent variable which was represented by the combined theories of Maslow and Herzberg under the five need levels in the WMI (basic, safety, belonging, ego-status, and self-actualization). For statistical analysis, the null format for each hypothesis was tested. A null result indicated that no difference existed between the variables being studied. A t-test and analysis of variance (ANOVA) was used to test for significant differences at the .05 level of significance in this study. The t-test was used to test for significant differences of hypotheses 1 through 3.

The analysis of variance is the inferential technique used to determine if multiple means are significantly different. The "analysis of variance of a factorial design involves hypothesis testing to determine if the main effect means differ significantly from each other for each independent variable and to determine if the interaction of the independent variables is statistically significant" (Kiess, 1989, p. 359-360). The ANOVA test, however, does not disclose where specific differences may lie among several means. A further procedure, called a post hoc analysis, was required to ascertain this information (Fraenkel & Wallen, 1993). The ANOVA was used to test for significance at the .05 level.
Tables were used to represent the t-test and analysis of variance data. Tables were also used to represent the five need categories and the number, mean, and standard deviation for each. The Profile Summary of needs graphs were used to represent the need strength of the pre-established WMI scores and the scores of the sub-groups that were obtained in this study (see Appendix K, L, M, N and O).

Work Motivation Inventory Needs by Location

The independent variable is location (School Board, Principals, School #1, School #2, School #3), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 2. The location of the educator did not have an effect on their needs.

Work Motivation Inventory Needs by Age

The independent variable is age (group 3 [30-34], group 4 [35-39], group 5 [40-44], group 6 [45-49], group 7 [50-54], group 8 [55+]), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, belonging, ego-status, and self-actualization needs. There was a significant difference for safety needs, F (5,89) = 2.33, p < .05. Post hoc analysis revealed that the oldest group was lower (mean = 43.57) than group 4 (mean = 54.61), group 5 (mean = 53.31), and group 7 (mean = 54.28). The means, standard deviations, and ANOVA results are reported in Table 3. It seems that older educators are less concerned with safety.
<table>
<thead>
<tr>
<th>Group</th>
<th>Need Variable</th>
<th>Basic</th>
<th>Safety</th>
<th>Belonging</th>
<th>Ego-Status</th>
<th>Self-Actual.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mean</td>
<td>47.36</td>
<td>50.27</td>
<td>63.27</td>
<td>61.36</td>
<td>77.72</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>7.80</td>
<td>6.98</td>
<td>8.08</td>
<td>9.05</td>
<td>13.92</td>
</tr>
<tr>
<td>2</td>
<td>Mean</td>
<td>44.88</td>
<td>48.33</td>
<td>67.33</td>
<td>64.11</td>
<td>74.22</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>13.00</td>
<td>6.10</td>
<td>7.38</td>
<td>6.07</td>
<td>10.17</td>
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<tr>
<td>3</td>
<td>Mean</td>
<td>54.82</td>
<td>52.67</td>
<td>61.70</td>
<td>60.50</td>
<td>70.27</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>10.31</td>
<td>10.30</td>
<td>11.43</td>
<td>11.30</td>
<td>11.50</td>
</tr>
<tr>
<td>4</td>
<td>Mean</td>
<td>52.95</td>
<td>54.04</td>
<td>58.33</td>
<td>60.95</td>
<td>73.71</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>11.38</td>
<td>10.10</td>
<td>11.44</td>
<td>8.23</td>
<td>13.97</td>
</tr>
<tr>
<td>5</td>
<td>Mean</td>
<td>54.07</td>
<td>48.92</td>
<td>58.14</td>
<td>62.71</td>
<td>76.14</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>11.04</td>
<td>7.09</td>
<td>11.23</td>
<td>8.59</td>
<td>12.10</td>
</tr>
<tr>
<td>F-Value</td>
<td>.0618</td>
<td>.3440</td>
<td>.2075</td>
<td>.8508</td>
<td>.3374</td>
<td></td>
</tr>
<tr>
<td>p-Value</td>
<td>2.3321</td>
<td>1.1375</td>
<td>1.5048</td>
<td>.3393</td>
<td>1.1521</td>
<td>1.1521</td>
</tr>
</tbody>
</table>

Group: 1 • School Board  2 • Principals  3 • School #1  4 • School #2  5 • School #3
Table 3

Work Motivation Inventory Needs By Age

<table>
<thead>
<tr>
<th>Need Variable:</th>
<th>Basic</th>
<th>Safety</th>
<th>Belonging</th>
<th>Ego-Status</th>
<th>Self-Actual.</th>
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</thead>
<tbody>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
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Age Groups: 3 • 30-34  4 • 35-39  5 • 40-44  6 • 45-49  7 • 50-54  8 • 55+
Work Motivation Inventory Needs by Position

The independent variable is position (administrator, teacher), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for safety, belonging, ego-status, and self-actualization needs. There was a significant difference for basic needs. The means, standard deviations, and ANOVA results are reported in Table 4. Teachers were more concerned than administrators about basic needs.

Work Motivation Inventory Needs by Gender

The independent variable is gender (male, female), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 5. The gender of the educator did not have an effect on their needs.

Work Motivation Inventory Needs by Years of Experience

The independent variable is years of experience (group 1 [0-5], group 2 [6-10], group 3 [11-15], group 4 [16-20], group 5 [21-25], group 6 [26-30], group 7 [31+]), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 6. The number of years of
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<tr>
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Table 6
Work Motivation Inventory Needs By Years of Experience

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<th>Self-Actual.</th>
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<td>9.09</td>
<td>9.64</td>
<td>11.57</td>
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</tbody>
</table>

**Main Effects**

| F-Value   | .9845 | .5660 | 1.1155 | .2294 | .8693 |
| p-Value   | .4407 (It) | .7563 | .3599 | .9661 | .5208 |

**Linear Trend**

| F-Value   | 4.3543 | 1.5143 | 3.2279 | .0212 | 1.1011 |
| p-Value   | .0398 | .2218 | .0758 | .8847 | .2969 |

Years of Experience Groups:

1 • 0-5  
2 • 6-10  
3 • 11-15  
4 • 16-20  
5 • 21-25  
6 • 26-30  
7 • 31+

(II) • Linear Trend
experience did not have an effect on an educator's needs.

Work Motivation Inventory Needs by Household Income

The independent variable is household income (group 2 [31-50], group 3 [51-70], group 4 [71-90], group 5 [91-110], group 6 [111-130], group 7 [130+]), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 7. The household income of educators did not have an effect on their needs.

Work Motivation Inventory Needs by Realistic Personality

The independent variable is realistic personality (low, high), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for safety, belonging, ego-status, and self-actualization needs. There was a significant difference for basic needs, F (1,93) = 4.088, p < .05. The means, standard deviations, and ANOVA results are reported in Table 8. Educators who are high in realistic personality are more concerned about their basic needs.

Work Motivation Inventory Needs by Investigative Personality

The independent variable is investigative personality (low, high), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety,
Table 7
Work Motivation Inventory Needs By Household Income

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<th>Need Variable:</th>
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<th>Belonging</th>
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<th>Self-Actual.</th>
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<td>p-Value</td>
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<td>.7978</td>
<td>.4152</td>
<td>.6369</td>
<td>.9536</td>
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</table>

Income Groups (In Thousands):

2 • 31-50  3 • 51-70  4 • 71-90  5 • 91-110  6 • 111-130  7 • 130+
Table 8

Work Motivation Inventory Needs By Realistic Personality (z-score)

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<th>p-Value</th>
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</tr>
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belonging, and self-actualization needs. There was a significant difference for ego-status needs, \( F(1,93) = 4.6191, p < .05 \). The means, standard deviations, and ANOVA results are reported in Table 9. Educators who are high in investigative personality have lower ego-status needs.

**Work Motivation Inventory Needs by Artistic Personality**

The independent variable is artistic personality (low, high), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 10. Educators who were artistically oriented did not have differences in needs.

**Work Motivation Inventory Needs by Social Personality**

The independent variable is social personality (low, high), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 11. Educators who were socially oriented did not have differences in needs.

**Work Motivation Inventory Needs by Enterprising Personality**

The independent variable is enterprising personality (low, high), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA),
Table 9  
Work Motivation Inventory Needs By Investigative Personality

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<tr>
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<tr>
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<tr>
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<td>.9501</td>
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<td>.5662</td>
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<td>SD 13.59</td>
<td>10.55</td>
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</tbody>
</table>
resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 12. Educators who had an enterprising orientation did not have differences in needs.

**Work Motivation Inventory Needs by Conventional Personality**

The independent variable is conventional personality (low, high), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 13. Educators who had a conventional orientation did not have differences in needs.

**Work Motivation Inventory Needs by Self Confident Personality**

The independent variable is self confident personality (low, high), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 14. Educators who were self confident did not have differences in needs.

**Work Motivation Inventory Needs by Masculine-Feminine Personality**

The independent variable is masculine-feminine personality (low scores are designated as feminine, high scores are designated as masculine), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging,
Table 12  
Work Motivation Inventory Needs By Enterprising Personality

<table>
<thead>
<tr>
<th>Need Variable</th>
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<th>p-Value</th>
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<td>11.26</td>
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<td></td>
</tr>
<tr>
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<td>.9253</td>
</tr>
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<td></td>
<td>SD 9.23</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Belonging</td>
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<td>.0437</td>
<td>.8349</td>
</tr>
<tr>
<td></td>
<td>SD 11.62</td>
<td>9.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ego-Status</td>
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<td>.8648</td>
</tr>
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<td>10.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Actualization</td>
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<td>.8763</td>
</tr>
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<td></td>
<td>SD 13.08</td>
<td>11.58</td>
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<td></td>
</tr>
<tr>
<td>Need Variable</td>
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<td>High Conventional</td>
<td>F-Value</td>
<td>p-Value</td>
</tr>
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<td>-------------------</td>
<td>---------</td>
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</tr>
<tr>
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<td>n = 31</td>
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<td>.0011</td>
<td>.9738</td>
</tr>
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<td>SD 10.94</td>
<td>11.26</td>
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</tr>
<tr>
<td>Safety</td>
<td>Mean 52.01</td>
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<td>.6747</td>
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<td></td>
<td>SD 7.92</td>
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<td></td>
<td>SD 11.12</td>
<td>14.78</td>
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Table 14
Work Motivation Inventory Needs By Self Confident Personality

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<th>p-Value</th>
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</tr>
<tr>
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<td>51.08</td>
<td>2.2599</td>
<td>.1361</td>
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<tr>
<td></td>
<td>11.83</td>
<td>10.23</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>1.2149</td>
<td>.2732</td>
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<td>10.01</td>
<td>8.63</td>
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<td></td>
</tr>
<tr>
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<td>.4550</td>
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<tr>
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<td>9.54</td>
<td>9.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Actualization</td>
<td>72.94</td>
<td>73.26</td>
<td>.0151</td>
<td>.9025</td>
</tr>
<tr>
<td></td>
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<td>12.74</td>
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</tr>
</tbody>
</table>
Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 15. Educators who were either feminine or masculine in orientation did not have differences in needs.

**Work Motivation Inventory Needs by Status Personality**

The independent variable is status personality (low, high), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 16. Educators who were considered to have a low or high status orientation did not have differences in needs.

**Work Motivation Inventory Needs by Infrequency Personality**

The independent variable is infrequency personality (low, high), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety, Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 17. Educators who were considered to have an infrequency oriented personality did not have differences in needs.

**Work Motivation Inventory Needs by Acquiescence Personality**

The independent variable is acquiescence personality (low, high), and the dependent variables are the five levels of the Maslow hierarchy of needs (Basic, Safety,
Table 15
Work Motivation Inventory Needs By Masculine-Feminine Personality

<table>
<thead>
<tr>
<th>Need Variable</th>
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<td>10.57</td>
<td>11.55</td>
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<td></td>
</tr>
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<td>51.77</td>
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<td>.9676</td>
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<tr>
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</tr>
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<tr>
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### Table 16

**Work Motivation Inventory Needs By Status Personality**

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</tr>
<tr>
<td>Safety</td>
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<td></td>
</tr>
<tr>
<td>Self-Actualization</td>
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<td>74.70</td>
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<td>.2135</td>
</tr>
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<td>SD 13.51</td>
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Table 17
Work Motivation Inventory Needs By Infrequency Personality

<table>
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<th>High Infrequency n = 45</th>
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<th>p-Value</th>
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</tr>
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<td>.4139</td>
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<tr>
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</tbody>
</table>
Belonging, Ego-Status, and Self-Actualization). Analysis of the data (one-way ANOVA), resulted in no statistically significant difference between groups for basic, safety, belonging, ego-status, and self-actualization needs. The means, standard deviations, and ANOVA results are reported in Table 18. Educators who were considered to have an acquiescent personality did not have differences in needs.
Table 18

Work Motivation Inventory Needs By Acquiescence Personality

<table>
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<th>Need Variable</th>
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<td>.7213</td>
</tr>
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<td></td>
</tr>
<tr>
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<td>.2352</td>
</tr>
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<td></td>
</tr>
<tr>
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<td>.5116</td>
</tr>
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<td>.9776</td>
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<td>Self-Actualization</td>
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</table>
A. Discussion

The purpose of this study was to determine if any differences existed between teachers and administrators concerning need satisfaction in the workplace. Attempts were also made to determine if any differences existed between educators concerning the demographic variables of position, age, location, gender, years of experience, and household income. The personality profiles of educators, which included the personalities of investigative, realistic, artistic, social, enterprising, conventional, masculine-feminine, status, infrequency, self confident, and acquiescence were also examined to determine if need deficiencies could be predicted by certain personality types. By examining the need level scores as determined by Hall and Williams' Work Motivation Inventory (based on the work and theory of Maslow and Herzberg) and the personality profile scores of Holland's Vocational Preference Inventory, meaningful data concerning the work motivation and job satisfaction of educators was obtained.

The Work Motivation Inventory, which was developed and validated by Hall and Williams, was used to assess the physiological, safety, love and belonging, ego-status, and self-actualization needs of educators in their work settings. The Vocational Preference Inventory, developed by Holland, was used to assess the same five levels of needs in the work setting according to personality profiles. Individuals were assessed a high or low personality orientation according to the eleven personality descriptors.

The relationship of the five need levels of the Work Motivation Inventory with demographic variables were investigated. The results indicated that by position, no significant differences were found between teachers and administrators in four of the five need categories. The one exception was for the basic need system. Teachers had
significantly higher basic needs than administrators. By age groupings, no significant
differences were found in four of five need categories. The one exception was for the
safety need system. Educators who were represented by groups 4 (35-39), 5 (40-44),
and 7 (50-54) had significantly higher safety needs than educators in group 8 (55+).
There were no significant differences found in the five need categories for educators for
the remaining independent variables which consisted of location, gender, years of
experience (a trend developed toward less concern for basic needs as the educator gained
more years of experience but the result was not significant), and household income.

The relationship of the five need levels of the Work Motivation Inventory with
the personality traits of the Vocational Inventory were investigated. The results
indicated that by realistic personality, there were no significant differences in four of
the five need categories for educators. The one exception was for the basic need system.
Educators who were high in realistic personality had significantly higher basic needs.
For investigative personality, there were no significant differences in four of the five
need categories for educators. The one exception was for the ego-status need system.
Educators who were high in investigative personality had significantly lower ego-status
needs. There were no significant differences in the five need categories for educators for
the artistic, social, enterprising, conventional, self-confident, masculine-feminine,
status, infrequency, and acquiescence personality scores.

It is interesting to compare the results of this study with that of the literature.
By independent variable of position, teachers were significantly more concerned than
administrators about the basic needs in the hierarchy. Chisolm, Washington, and
Thibodeaux (1980) mirrored the findings of this study by observing that
administrators had fewer deficiencies than teachers in all need categories. The basic
needs concerned the individual with avoidance of physical strain or discomfort, pleasant working conditions, more leisure time, and environmental supports. Some examples of these needs would include food, shelter, clothing, and other necessities. People who experience need frustration in this need classification are motivated by monetary compensation to the extent that they allow for personal or family comfort and material possessions. In addition, the result from this study of teachers being significantly more concerned than administrators is so different that it would have been statistically significant at the p < .01 level as well. Calfee and Pessirilo-Jurisic (1980) on the other hand, found similarities between teachers and administrator job satisfaction. The similarities, which were discovered during a period of reduced funding for schools through drastic government action, included mutual dissatisfaction with increased workload, worsening conditions, and fewer rewards. Teachers saw the future as bleak and were planning to leave the profession.

Similar to this study, Carey (1980) found common results between administrators and teachers using Herzberg's theory by discovering that the area of interpersonal relations (belonging needs), were equally important for job satisfaction. However, salary (basic needs) was not important for job satisfaction which contrasts teacher's feelings according to the results of this study.

The finding that teachers are concerned about the basic needs provides several viewpoints to consider. According to the literature, McGregor (1960) stated that management should have provided for the satisfaction of physiological (basic) and safety needs in today's work environment since the social legislation that had been developed from the 1930's should have provided for these comforts and satisfactions. However, with the unrest that has occurred since the Social Contract, the teaching profession has
had to endure frozen salaries, salary cuts, days off without pay, and layoffs. Teachers are caught in a lack of hygienic concerns where concerns run high about remuneration and job security. With the energy and efforts of teachers remaining focused at this low level of the Maslow (1954) needs hierarchy, a problem develops where educators can not reach their potential and the higher order needs; specifically, self-actualization. Gregorc and Hendrix (1973) supported this notion with their study that was based on Herzberg's theory. According to Herzberg, Mausner & Snyderman (1962), hygiene or lower order needs that are not satisfied will produce dissatisfaction. Teachers appear to be preoccupied with the lowest hygiene level (Table 3) and this is something that is not supposed to happen in today's society where unions, through collective bargaining, are believed to have made provision for this. Kaiser (1982) felt that teacher's salaries have provided for the basic needs and security needs have been met by our society.

Lawler (1973) suggested that if a person's job security was threatened, they would abandon all else in order to protect it. Self-actualization and growth would be possible through the prior attainment of lower needs. Teachers, according to the information obtained from this study, will have a difficult time achieving their potential and contributing to the organization under these conditions. It is interesting to note that teachers scored relatively low under the higher level needs not only compared to administrators but compared to the normative profile as established by Hall and Williams (1994) (see Appendix M). Sergiovanni (1975) echoed the suggestion by Lawler by declaring that great achievements would not be realized if employers and employees do not move beyond the traditional legal work relationship where many of the lower needs exist. Sergiovanni also stated that during a time of economic slowdown and teacher surplus combined with a lack of opportunity for change or mobility, satisfaction
could be difficult for teachers. It is reasonable to consider that Sergiovanni's statement maintains some relevance to the present situation. This possibility certainly must be considered with regard to the kind of impact it could make. Ratliff (1985) used the Work Motivation Inventory as the instrument for a study and found results consistent with the findings of this study. In the Ratliff study, teachers had higher physiological, safety, and belonging needs than industrial, government, and retail workers from the Normative Profile as determined by Hall and Williams.

The data indicated that by the independent variable of age, older educators (55+ group) were significantly less concerned only about the safety needs than educators in three different age groupings that were represented by the following designations: (35-39), (40-44), and (50-54). The educators in these latter groups had significantly higher needs or perceived need deficiencies than the older group. Based on the statistical treatment of the data, the null hypothesis was rejected for the dependent variable of safety needs, however, the null hypothesis failed to be rejected for the other four dependent variables (basic, belonging, ego-status, and self-actualization). In contrast, Bienenstok and Sayres (1963) found that dissatisfaction tended to increase with age. Williams (1978) supported the age differences by surmising that people were motivated by different things at different stages of their lives. Similar to the findings of this study, Holdaway (1978) found that safety needs were high on the list of teachers with respect to job security and the prospect of teaching as a lifelong career. Farrar (1981) also found job security (a safety need) to be an important motivator for teachers. These needs, according to the literature, consisted of concern for job security, harm avoidance, predictability, protective fringe benefits such as health and life insurance, workman's compensation, safe working conditions, performance standards,
and retirement income. Individuals who experience needs in this area are primarily motivated by and see the job as a defense against deprivation and loss of the basic comforts of life. The achievement of safety and order in one's work life are of prime concern.

The finding that teachers did not have high needs in ego-status does not parallel the findings in the literature. Sergiovanni (1966) found that the need for recognition or status and the need for achievement were important to teachers. It was also established that lack of salary, inadequate working conditions, and poor environmental supports lead to dissatisfaction. While salary may not be considered to be inadequate for Ontario urban teachers, the wage reduction that has occurred certainly can be cause for high need scores at the basic level. Bass and Ryterband (1979), Nadler, Hackman, and Lawler (1979), and Messick and Cook (1983) supported this notion when they declared that individuals make comparisons about their work with society as a whole. It is conceivable that educators are assessing the changes that have occurred in a demeanor of constant comparison with other occupations. Adams and Rosenbaum's Equity Theory (1962) further supports this by making reference to the importance of the value of the "comparison other" concept. An employee may be dissatisfied because their salary fails to keep up with inflation and they see their friends making gains in other occupational groups. In terms of inequity, Cherrington (1994) felt that when people thought that their ratios were unfair or were not meted out justly, the result could be low productivity, turnover, grievances, absenteeism, and dissatisfaction. This could affect the amount of effort or inputs one puts into their job to maintain the existing situation. This scenario is descriptive of the time of the distribution of the inventories for this study as educators have been involved with work to rule campaigns where job inputs
have diminished, particularly in the area of extracurricular involvement. Less experienced teaching staff have had to cope with the additional stress of the loss of incremental payments for experience along with the all-inclusive salary reductions during the Social Contract period. Salary increments were deemed to be important by teachers in the study by Farrar (1981). It is interesting to note that Peterat (1980) discovered that items that caused dissatisfaction tended to be controlled by persons other than teachers in the educational system. Based on the statistical treatment of the data, the null hypothesis was rejected for the dependent variable of basic needs. The null hypothesis failed to be rejected for the four other dependent variables of safety, belonging, ego-status, and self-actualization.

Considering the independent variable of gender, educators as a whole experienced no significant differences in need satisfaction. Based on the statistical treatment of the data, the null hypothesis failed to be rejected. This contradicts the findings of Bienenstok and Sayres (1963) who found for teachers, several differences. They found that men experienced dissatisfaction with salary, supervisory assistance, respect, and recognition. Women were dissatisfied with their teaching load. Holdaway (1978) also found gender differences by concluding that females were more satisfied than males. In a Maslow-based study Chisolm, Washington, and Thibodeaux (1980) also found contrasting results for both administrators and teachers by revealing that males were most deficient in esteem needs and females in autonomy needs. As far as administrators are concerned, Brown (1972), using Maslow's theory as the construct for the study, supported finding that there were no differences concerning gender. Sergiovanni (1966) found that males and females tended not to differ in responses to sources of job satisfaction and dissatisfaction.
Considering the independent variable of family income, no differences were to be found in need satisfaction. Based on the statistical treatment of the data, the null hypothesis failed to be rejected. Similarly, Knoop (1980) found that personal factors did not have an effect on job satisfaction, motivation, or involvement.

Considering the independent variable of years of experience, no significant differences were to be found with regard to need satisfaction. Based on the statistical treatment of the data, the null hypothesis failed to be rejected. It is interesting to note that a linear trend developed in the basic need satisfaction level of the hierarchy. The F-value and p-Value for the linear trend (Lt) are reported in Table 5. As individuals moved through their educational career and gained years of experience, the strength of the basic needs became diminished. Bienenstok and Sayres (1963) did however find differences among age groups with regard to satisfaction and needs. Younger teachers were concerned with salary, lack of intellectual stimulation, and supervisory assistance. Older teachers were dissatisfied with their teaching load.

It is ironic that the only areas of the Maslow needs hierarchy and Herzberg two-factor theory that produced significant results from the Work Motivation Inventory were from the two lower level, extrinsically-based need systems. Much of the literature strongly favours the importance of intrinsic reward systems, or higher order needs, in order to gain optimum satisfaction in the workplace. Maslow (1954), McGregor (1960), Herzberg, Mausner and Snyderman (1962), Gregorc and Hendrix (1973), Porter, Lawler, and Hackman (1975), Thompson (1979), Sergiovanni and Starrat (1979), Erlandson and Pastor (1981), Kaiser (1982), and Ratliff (1985) supported the belief that intrinsic motivators were more effective for the inducement of job satisfaction.
The study also investigated the relationship between the vocational personality orientations of educators and their need satisfactions. According to the realistic independent variable, educators who were high in realistic personality were more concerned about basic needs. Based on the statistical treatment of the data, the null hypothesis was rejected for the basic need dependent variable. According to Holland (1979), these people are practical, frank, honest, and hardheaded while lacking in interpersonal skills and insight. They are also mechanically inclined while lacking in social skills. Holland further suggested that when a person works in an environment where their personality does not match with the environmental descriptor, job satisfaction might become difficult. Realistic educators in this study reported dissatisfaction with the basic needs. According to Holland, the educational environment is best suited for social types and realistic types are not of this genre. This might account for the lack of fulfillment at this need level. There were no other statistically significant findings under this personality type. The realistic type did not show need deficiencies in any other of the four need classifications. Based on the statistical treatment of the data for the need classifications of safety, belonging, ego-status, and self-actualization, the null hypothesis failed to be rejected.

Individuals who were found to be high in investigative personality had significantly lower ego-status needs. Based on the statistical treatment of the data, the null hypothesis was rejected. Investigative types were described by Holland as being intellectual, introverted, rational, shy, reserved, curious, independent, achieving, and planful with a scientific and mathematical orientation. They are also lacking in leadership ability. While scientific and mathematical abilities have relevance to the field of education, investigative personalities seem to function better at an independent level
based on the descriptors suggested by Holland. They have an intellectual orientation yet are quite introverted and reserved. It is sensible to conclude that investigative educators, while having related abilities in the field of education, have experienced low ego-status needs because they are satisfied by displaying their competence through the work itself. They function more appropriately at an independent level as opposed to the more socially, leadership-oriented type of educational environment. Because the investigative individual is generally an achieving type of individual, many of the desires to obtain status or recognition through the opportunity to display their skills and competencies may have been fulfilled independently. Investigative educators were not concerned with any of the other need satisfactions. Conversely, it can be stated and interpreted that educators with low investigative personality had high ego-status needs. As opposed to high investigatives, the low investigative would not be as introverted, modest, or independent as a high investigative but would be more outgoing. The resulting effect would be one where an individual would seek opportunities for recognition, a desire to excel, and to display competency in hopes of garnering social or professional rewards. In summation and based on the statistical treatment of the data for the need classifications of basic, safety, belonging, and self-actualization, the null hypothesis failed to be rejected.

The artistic personality type did not, according to the findings, experience any significant level of need satisfaction according to the hierarchy of needs. Based on the statistical treatment of the data, the null hypothesis failed to be rejected. The same results were found for the remaining personality types as well, namely; social, enterprising, conventional, self confident, masculine-feminine, status, infrequency, and acquiescence. This is not surprising when one looks at the hexagonal model
(see Figure e) as proposed by Holland (1979). As outlined in the literature review, the
closer the personality types were to each other in the model, the more closely related
they were. Since the social personality is considered to be the more appropriate
educational personality, it is reasonable to conclude that the closest personalities;
namely, artistic, and enterprising would experience relative satisfaction and the farther
personalities: namely conventional, realistic, and investigative would experience a
certain degree of need deficiency. This was evident under the realistic and investigative
personalities where significant differences had resulted. The results confirm Holland’s
notion that the social (educational) personality should be incompatible with the
investigative personality and the social personality should be highly incompatible with
the farthest extreme, the realistic personality. The conventional personality should,
according to Holland theory, match the results of the investigative personality since they
maintain the same ratio, yet this study did not bare that result.

The results obtained from the use of the Vocational Preference Inventory (1985)
lend some support to the notion made by Holland (1973) that interest inventories are
personality inventories and the choice of a vocation is an expression of personality. It is
also interesting to note that both the VPI and the WMI produced statistically significant
results in the basic needs category of Maslow's hierarchy of needs.

It was not the intention of the researcher of this study to obtain statistical
comparisons of the data obtained in this study with that of the work of Hall and Williams.
Although the ANOVA procedure was not implemented by comparing the profile scores
obtained in this study with the normative profile established by Hall and Williams in the
Work Motivation Inventory, it is interesting to look at the differences in mean scores
(see Table 19 and 20). When investigating the differences between the Industrial,
Table 19
Mean and Standard Deviation for Teachers and Administrators
as compared to Industrial, Government, and Retail Workers (IGR) as defined by the
Normative Profile Summary
for Hall and Williams' Work Motivation Inventory

<table>
<thead>
<tr>
<th>Need Category</th>
<th>Administrators</th>
<th>Teachers</th>
<th>IGR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 20</td>
<td>n = 75</td>
<td>n = 34,279</td>
</tr>
<tr>
<td>Basic</td>
<td>Mean 46.25</td>
<td>54.16</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>SD 10.24</td>
<td>10.64</td>
<td>10</td>
</tr>
<tr>
<td>Safety</td>
<td>Mean 49.4</td>
<td>52.36</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>SD 6.5</td>
<td>9.77</td>
<td>11</td>
</tr>
<tr>
<td>Belonging</td>
<td>Mean 65.1</td>
<td>60.09</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>SD 7.85</td>
<td>11.38</td>
<td>12</td>
</tr>
<tr>
<td>Ego-Status</td>
<td>Mean 62.6</td>
<td>61.04</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>SD 7.79</td>
<td>9.97</td>
<td>12</td>
</tr>
<tr>
<td>Self-Actualization</td>
<td>Mean 76.15</td>
<td>72.33</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>SD 12.2</td>
<td>12.4</td>
<td>14</td>
</tr>
</tbody>
</table>
Table 20
Mean and Standard Deviation for Educators
as compared to Industrial, Government, and Retail Workers (IGR) as defined by the
Normative Profile Summary
for Hall and Williams’ Work Motivation Inventory

<table>
<thead>
<tr>
<th>Need Category</th>
<th>Educators n = 95</th>
<th>IGR n = 34,279</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Mean 52.49</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>SD 10.89</td>
<td>10</td>
</tr>
<tr>
<td>Safety</td>
<td>Mean 51.74</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>SD 9.23</td>
<td>11</td>
</tr>
<tr>
<td>Belonging</td>
<td>Mean 61.15</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>SD 10.89</td>
<td>12</td>
</tr>
<tr>
<td>Ego-Status</td>
<td>Mean 61.37</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>SD 9.53</td>
<td>12</td>
</tr>
<tr>
<td>Self-Actualization</td>
<td>Mean 73.14</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>SD 12.4</td>
<td>14</td>
</tr>
</tbody>
</table>
Government, and Retail Workers (IGR) from the WMI and the Administrators and Teachers from this study, there is a noticeable deficiency in the lower level needs for teachers (Table 19). This observation is similar to the results of this study where teachers experienced higher need strength in the basic needs. When grouping the educators as a whole, the lower level needs (basic, safety, and belonging) are stronger (Table 20). Another observation that reflects the findings of this study is the fact that the ego-status scores for administrators, teachers, and educators are noticeably lower than the IGR group. It would appear that educators in Ontario are not prepared to maximize their potential in the pursuit of esteem and self-actualization and are concerned with the lower level hygienes at the expense of reaching their true potential.

B. Recommendations

Based on the findings of the study, the following recommendations are proposed:

1. This study should be conducted across the province of Ontario in order to attain a broader and more representative sample of the state of need satisfaction of Ontario teachers and administrators.

2. Since other Canadian provinces are dealing with educational restructuring, replication of this study in other Canadian provinces would give strength and appropriate comparison samples thereby providing more meaningful information with regard to educator job satisfaction.

3. The study should be replicated as soon as possible since at the time of the writing of the recommendations, the social contract had expired. The cumulative effect of the legislation could be measured at this opportune time.

4. The study should be replicated to include elementary teachers and administrators in order to acquire a thorough reading of educator need satisfaction.
5. While the Vocational Preference Inventory and Work Motivation Inventory maintain good validity and reliability scores, a study which would provide the opportunity for anecdotal responses through interviews or survey questions concerning work motivation would provide more direct responses about attitudes, feelings, and specific factors in the workplace that caused either satisfaction or dissatisfaction. It could be more efficiently determined whether or not specific events have caused the feelings of satisfaction and if they had originated either in or outside the workplace.

6. School systems should consider providing and assuring educators that adequate fringe benefits such as pension income and hospitalization insurance, and job security, stability, and performance standards will remain in place. Since safety needs are oriented toward the self, they will promote less mature behaviours when they are operating and the individual will be concerned with personal goals at the expense of organizational goals.

7. School systems should consider providing teachers with adequate environmental supports in order to satisfy the basic needs. Since remuneration is included in the basic need structure, the restoration of incremental payments for experience and an overall cost of living allowance should be considered in order to provide for fair and equitable treatment of teachers with less experience and for teachers as a group in comparison to other occupations.

8. School systems should consider compressing the salary grid for all educators should the state of education remain in its present condition. Since salaries have been frozen and the job demands (job enlargement) have increased significantly, an adjustment to the pay scale could be made to accurately reflect the changing demands of the job.
9. Educators should consider developing rigorous publicity programs that constantly reinforce the excellence that educators provide. The educational profession as a whole must recognize outstanding teachers and administrators and become more aggressive with regard to educating the public about their efforts. Educators are not unlike other fields of work where the status of the profession is important to the individual. The strengthening of the status of the profession will help to prevent job dissatisfaction and enable educators to dwell on the more important motivating behaviours.

10. All secondary students who plan to enter post-secondary educational programs and who have expressed an interest in the educational profession should be given the opportunity complete personality inventories and receive vocational counselling during their senior years about the demands of the profession. Secondary students would be given the tools to make wise decisions about their future well before a tremendous amount of time and financial resources have been invested.

11. Vocational personality inventories should be considered for the measuring of latent job satisfaction for potential teachers during their teacher-training term. As predicted by the hexagon model of Holland's theory of vocational preferences, realistic personalities are complete opposites to the more teaching-oriented social types and it is expected, as the results of this study have shown, that they would display some type of need deficiency. Individuals would be able to gather valuable information about their match between their personality profile and future job satisfaction if they invested the effort to learn more about themselves and their work motivation.

12. School systems should consider providing an environment where the higher and more mature levels of work motivation exist. In order to contribute to the quality of
the organization, educators need opportunities for the satisfaction of these needs. Educators are preoccupied with the individually-centered and motivated lower level needs which do not benefit the organization as a whole. While the results of this study have shown that educators are preoccupied with the lower level needs, Maslow suggested that individuals could be motivated by several needs simultaneously. It would therefore be important to attempt to assist educators to move on to the more mature higher order needs. This can be achieved in three ways:

a) School systems should consider providing the opportunity to satisfy love and belonging needs. This could be achieved by creating frequent opportunities to interact with colleagues both at a professional and social level. The lack of professional development days (which had been cut) and the harmonious interaction it helped to provide within the educational environment has had an effect on individuals during the climate that has existed during this time. The benefits from developing these opportunities would be realized in the form of improved interpersonal relationships and the building of support networks within the organizational family thereby creating a more sensitive and empathetic work environment.

b) School systems should consider providing the conditions necessary to satisfy the ego-status needs of educators. The educational environment does not readily provide the worker with many opportunities for advancement as most individuals who change jobs may only experience lateral moves. It would be prudent to provide chances for input into decision-making, challenging work, advancement and recognition based on merit, and opportunities to display competencies.

c) School systems should consider providing educators with opportunities to satisfy their self-actualization needs. According to Maslow, by focusing on the intrinsic
nature of the work itself, a sense of personal achievement and satisfaction would result where an individual can strive to reach their potential. School systems should continue to encourage an environment characterized by risk-taking, autonomy, trust, creativity, and freedom to experiment in order to facilitate the possibility of attaining self-actualization. It is through these efforts that individuals may be able to make the most mature and constructive contributions to their organizations.
CHAPTER VI
APPENDIXES

APPENDIX A
PERSONAL DATA SHEET

1. Indicate the position that you presently hold. (check one)
   Teacher
   Administrator

2. Age in years.

   20-24  25-29  30-34  35-39  40-44  45-49  50-54  55+

3. Gender.
   Female
   Male

4. Indicate the credited number of years of experience.

   0-5  6-10  11-15  16-20  21-25  26-30  31+

5. Indicate the number of years credited toward your pay scale.

   0-5  6-10  11-15  16-20  21-25  26-30  31+

6. Household income in thousands of dollars.

   Below 31  31-50  51-70  71-90  91-110  111-130  130+

7. I would like to receive a copy of the results of this study.
   Yes  No

128
APPENDIX B
SAMPLE QUESTIONS
WORK MOTIVATION INVENTORY

14. I believe my morale and overall motivation would suffer most in a job situation wherein:
   D. Other employees received attention and promotions when I didn’t for doing the same quality work.
   A. I was under strong pressure to rush and had little time for lunch, coffee breaks, and the like.

15. In general, the most important thing to me in evaluating a job is whether or not:
   B. It affords good job security and a strong program of employee benefits.
   D. It allows for fairly rapid advancement based on my achievements.

16. I am likely to work hardest and accomplish most in a job situation wherein:
   A. The working conditions, i.e., office space, equipment, supplies, and basic physical necessities, are modern and plentiful.
   B. Mistakes are not punished and there is little chance of losing one’s job.
APPENDIX C
SAMPLE QUESTIONS
VOCATIONAL PREFERENCE INVENTORY

This is an inventory of your feelings and attitudes about many kinds of work. Fill out your answer sheet by following the directions given below:

1. Show on your answer sheet the occupations which interest or appeal to you by blackening ☑ for “Yes.”

2. Show the occupations which you dislike or find uninteresting by blackening ☒ for “No.”

3. Make no marks when you are undecided about an occupation.

1. Criminologist
2. Private Investigator
3. Restaurant Worker
4. Detective
5. Photoengraver
6. Truck Gardener
7. Physical Education Teacher
8. Humorist
9. Photographer
10. Diplomat

31. Auto Mechanic
32. Astronomer
33. Musician
34. Juvenile Delinquency Expert
35. Advertising Executive
36. Budget Reviewer
37. Prizefighter
38. Post Office Clerk
39. Experimental Laboratory Engineer
40. Bartender
APPENDIX F

LETTER REQUESTING PERMISSION FOR STUDY IMPLEMENTATION

XX.XXXXXXXXXX
Superintendent of Education
XXXXXXXXXXXXX School Board
XXXXXXXXXXXXX
XXXXXXXX, Ontario
XXXXXXXX

Jan. 25, 1995

Dear XX.XXXXXXXXX:

I am writing to you to request permission to conduct a study which would involve secondary teachers and administrators within the XXXXX XXXXX School Board. My thesis proposal concerning the work motivation and job satisfaction of secondary teachers and administrators of the XXXXX XXXXX school boards has recently been approved by the Faculty of Education Graduate Committee. The thesis will fulfill the final requirements for my Master of Education degree.

The purpose of the study is to determine whether any significant differences in motivation, job satisfaction, and individual needs exist between teachers and administrators of differing levels of experience and gender and more importantly, to gain an insight and understanding as to what specific factors cause these differences. Dr. Jay Hall and Dr. Martha Williams developed the "Work Motivation Inventory" (WMI) to assess an individual's needs in the workplace. The WMI measures the physiological, safety, love and belonging, ego-status, and self-actualization needs of the individual.

Many changes in education have resulted from the implementation of the Social Contract and these changes may have affected the morale, job satisfaction, and needs of educators. In part, effective teaching may be the product of teacher and administrator job satisfaction as various individual and collective needs are realized. It is important for organizations to understand what peoples' attitudes are about their work since organizations can directly influence the motivation of their personnel. As J. S. Kaiser stated in 1982, educators who are deprived of need satisfaction will seek other job markets to meet their needs for advancement, achievement, responsibility, recognition, and interesting work. The WMI survey was effectively used in 1985 by Jimmy D. Ratliff in a similar study which measured the need inventories of Tennessee teachers. Teleometrics International of The Woodlands, Texas holds the copyright to the WMI.

Two hundred secondary teachers and administrators from the XXXXX school systems would be randomly selected and compared. It would be best to obtain a stratified random sample of teachers which would represent the following sub-groups: teachers with one to ten years of experience, eleven to twenty years of experience, twenty-one to thirty-five years of experience, a representative sample of male and female teachers, and an even distribution of younger and older teachers. Due to the fact that there are, in comparison, fewer administrators to sample, all administrators would be sent the questionnaire. Administrators are defined in the Research Proposal and Petition that I have included in this package. If a stratified sample would be difficult to obtain, a cluster sample of high schools that would meet the requirements would suffice.

The questionnaires could, with permission, be distributed and returned through your board's courier system. A school board designate could facilitate the distribution and collection. This procedure would also maintain participant confidentiality. I have also included a complete copy of the questionnaire, data sheet, and other pertinent materials for further clarification.

Any data collected would naturally be made available to the XXXXX school board for their use. Please feel free to contact me at XXXXX Secondary School at XXX-XXXX should you require any additional information. Thank you and I look forward to hearing from you.

Sincerely,

Michael Seguin
APPENDIX G

LETTER FROM TELEMETRICS INTERNATIONAL

September 23, 1994

Mike Seguin
Graduate Student
6640 Miranda Court
La Salle, ON N9J 3G7
Canada

Dear Mike:

Thank you for inquiring about using several of our instruments as possible research instruments with your graduate project. Reliability and validity information is enclosed for the Work Motivation Inventory. A complete bibliography of others who have used this instrument can be obtained by utilizing APA’s computer search service.

The instrument sell for $6.95 each but as a graduate student you may be granted a special price of $2.00 per copy for additional instruments used in your research. To qualify for consideration, please submit a draft of your approved research proposal to us. If the grant is made available, we ask that, in return, you send us a copy of your thesis or dissertation when it is finished.

Because our instruments are copyrighted and cannot be reproduced in any way, we further ask that, rather than including one in the appendix of your dissertation, you include a copy of the front cover -- front and back with the copyright notice showing -- and two or three sample questions. In the past, this procedure has been acceptable to colleges and universities, as well as University Microfilms.

In order for us to know that you agree to these terms, we ask that you please sign the bottom of this letter and mail a copy of it back to us. Thank you for your cooperation. We offer our best wishes to you for success in your project and hope you will let us know how we might be of service to you in the future.

Very truly yours,

[Signature]

Edna Emerson
Seminar Coordinator

Terms accepted: __________________
Date accepted: Dec. 22, 1994

1755 WOODSTRE D COURT □ THE WOODLANDS, TEXAS □ 77380 □ (713) 367-0080
AMSTERDAM • BOGOTA • COPENHAGEN • JOHANNESBURG • LONDON • MALMO • OSLO • PARIS • SÃO PAULO • STOCKHOLM • STUTTGART • SYDNEY
APPENDIX I

COPYRIGHT OF WORK MOTIVATION INVENTORY

A Word About the Work Motivation Inventory

Please read carefully: We all have needs and objectives which we hope to serve through our work. And we are usually quite sensitive as to how well those needs and objectives are being satisfied. As a result, there tends to be a direct relationship between the amount of need satisfaction we experience and our performance on the job.

The potential a job has for satisfying a person's needs determines, in large measure, that individual's morale and productivity. For this reason it is important to know what things people value in their work situations so that their particular needs might be better matched to the potentials of a particular job.

This inventory is designed to assess the kinds of needs and values which you see as important considerations in making decisions about your work. It is designed to give you data about yourself and to provide you with information about your own satisfaction with your job.

There are no "right" or "wrong" answers to the items in the inventory. The best response to any item is simply the one which best reflects your feelings — either as you have experienced them or anticipate you would — in the work situations described.

Instructions: For each situation presented, there are five points to distribute between two alternatives. Try to answer as you think you would behave, not as you think you should. Although some alternatives might initially seem to be equally characteristic or uncharacteristic of you, please weight the alternative which is relatively more characteristic. Try to relate each situation to your own personal experience and make your responses as true and accurate as possible.

1. If A is completely characteristic and B is completely uncharacteristic, give 5 points to A and 0 points to B.
   A     B
   5     0

2. If A is considerably characteristic and B is somewhat characteristic, give 4 points to A and 1 point to B.
   A     B
   4     1

3. If A is only slightly more characteristic than B, give 3 points to A and 2 points to B.
   A     B
   3     2

4. Each of the above three combinations may be reversed. If you feel B is slightly more characteristic than A, give 2 points to A and 3 points to B — and so on for A = 1 and B = 4, or A = 0 and B = 5.
   A     B
   2     3

There are six possible combinations for responding to each pair of alternatives. Be sure the numbers you assign to each pair add up to 5. There is no time limit so take as much time as you need.

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APPENDIX J

COVER LETTER FOR QUESTIONNAIRE

Dear Colleague:

My name is Michael Seguin and I am a graduate student in the Faculty of Education at the University of Windsor. I am currently doing research concerning the motivation, individual needs, vocational preferences and job satisfaction of teachers and administrators in the Windsor area. My faculty supervisor for this study is Dr. Linda McKay from the Faculty of Education of the University of Windsor.

The face of education has taken on a new look in the Province of Ontario during the last few years. Profound changes in both curriculum and government legislation may have had an effect on teachers and administrators alike. It is important to investigate whether or not these changes have had any impact on the educational profession.

The central purpose of this study is to examine if there are significant differences in the needs and job satisfaction of urban secondary teachers and administrators in Ontario. The feelings and interests about various kinds of work will also be investigated. Several secondary school teachers and administrators have been chosen as potential participants for this study. Your participation in and any follow-up of this study is completely voluntary and you are free to withdraw at any time. Your cooperation and assistance are of vital importance to the completion of this project.

The enclosed "Personal Data Sheet", "Vocational Preference Inventory" and "Work Motivation Inventory" are designed to take approximately 25 minutes of your time. After reading the instructions carefully, please complete the three items and place them in the box marked "Motivation Surveys" in the mail room of your school at your earliest convenience. It is not necessary to calculate the scores for either survey. The return of the completed survey will serve to indicate that you have given your consent to be a participant.

Please be assured that your responses will be treated confidentially in every respect. Each respondent will be assigned an identification number as indicated in the upper right corner of this letter. Please copy this number down and keep this letter in your files for future use. This will allow the possibility of a follow-up study at some time in the future. If you are interested, the results of this study will be forwarded to you upon their availability. Simply check the appropriate section on the data sheet.

If you have any questions before, during or after this research project, you may contact me by phone at 978-9146. Any inquiries regarding the study may be directed to Dr. Larry Morton, Chair of the Faculty of Education Research Ethics Committee (FREC), University of Windsor at 253-4232, Ext. 3800. Once again, your cooperation is greatly appreciated.

Sincerely,

Michael J. Seguin
Profile Summary

APPENDIX L

PROFILE SUMMARY FOR TEACHERS AND ADMINISTRATORS

PROFILE SUMMARY

<table>
<thead>
<tr>
<th>Need Level</th>
<th>Teachers</th>
<th>Administrators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Actualization</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>Ego-Status</td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td>Belonging</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>Safety</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>Basic</td>
<td>30</td>
<td>20</td>
</tr>
</tbody>
</table>

Mean Score

30 40 50 60 70 80
APPENDIX M

PROFILE SUMMARY FOR TEACHERS, ADMINISTRATORS, AND IGR
APPENDIX N

PROFILE SUMMARY FOR EDUCATORS AND IGR

![Profile Summary Chart]

- Self-Actualization
- Ego-Status
- Belonging
- Safety
- Basic

Mean Score

APPENDIX O

PROFILE SUMMARY FOR TEACHERS, ADMINISTRATORS, EDUCATORS, AND IGR
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VITA AUCTORIS

NAME: Michael J. Seguin

PLACE OF BIRTH: Windsor, Ontario

YEAR OF BIRTH: 1960

EDUCATION:
Assumption College School, Windsor, Ontario 1974-1979

University of Windsor, Windsor, Ontario 1979-1983 Bachelor of Music (Honours)

University of Windsor, Windsor, Ontario 1983-1984 Bachelor of Education

University of Windsor, Windsor, Ontario 1993-1997 Master of Education