

The Effect of Formal Leadership Training on the Leadership Styles of
Police Field Trainers

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A thesis submitted to the Faculty of Education

in partial fulfilment

of the requirements for the degree of

Master of Education

March, 2004

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DEDICATION

To my father and mother, Reg W. and Wilda and my children Julie, Brandon, Chris, and
Kurtis and my partner Judi, for your love, support, patience, and understanding.
Without you all this would not have been possible.
Thank you.

ABSTRACT

This ex post facto causal comparative based study examined if any relationships existed between the attendance of the Supervision Level 1 training course held at the Atlantic Police Academy and the leadership style profiles of police field trainer attendees. Two biographically matched samples of 35 field trainers (trained and untrained), from the Maritime provinces, were given the Multi-factor Leadership Questionnaire (MLQ 5X). The 26 returned surveys were used to determine the leadership profiles along 3 leadership style domains: transformational, transactional and laissez-faire (Bass & Avolio, 1997). The results were examined using a matched sample *t test* (25 df, .05 alpha) to determine the degree of differences between the two groups. No statistically significant differences were found, but the direction of the differences were consistent with previous research showing that leadership styles can be positively affected by training (Bass & Avolio, 1997). The laissez-faire score (1.782) approached statistical significance. Discussion of the need for future research in this area of police education.

ACKNOWLEDGEMENTS

Dr. Xiufeng Liu, University of Prince Edward Island, for your dedication, patience and wisdom during the entire phase of this thesis.

Dr. Gerry Hopkirk, University of Prince Edward Island, for your laughter, inspiration, knowledge and insights into education and leadership.

The Police Chiefs of the Maritime Provinces who cooperated fully with this study.

Judi Illingworth who stood by me with patience and understanding through my undergraduate and postgraduate years.

Friends, colleagues, and classmates who each in their own way, supported me over the years in this endeavour.

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CHAPTER I

Background to the Problem

The educational process of mentoring is a time-honoured method of training adult professionals that has been validated by several modern studies for being beneficial in the areas of socialization, job satisfaction, effective adult education, and job commitment. The assigning of a mentor to a police recruit establishes a dyadic leadership relationship that is widely used in North America, Great Britain, and Australia by police agencies during both the “on the job training” part of recruit training, and during the probationary period of new employees. Before becoming a police mentor, an officer must attend a supervisory course which is designed to train him/her in the leadership styles and interpersonal skills required for the mentoring process. The end result of the leadership training of mentors is the proper indoctrinating of police recruits into sworn police officers who serve society and maintain the public trust. The reverse can be considered, that if a police recruit’s mentoring process was conducted poorly due to lack of proper leadership by the mentor, it could adversely affect their career indoctrinating and the public they serve. The mentor/protégée relationship has been called the most developmentally important relationship in the training of new police recruits (Williams, 2000) and an area which is crucial in maintaining the quality of the police recruit educational process (Beck, 1999).

The Atlantic Police Academy (APA) was founded in 1971 as a division of Holland College for the purpose of training police recruits for employment primarily in police

agencies in the Maritime provinces. Using the competency based educational system of Holland College, the APA Police Science course uses an extensive “on the job training” period in which recruits are assigned to qualified field trainers who have been trained as leaders to mentor and evaluate them (APA, 2002). Currently police recruits who pass an initial selection process can apply to the 32 week APA police science course held in Summerside, PEI.

The Police Science course consists of three sequential phases:

1. A 19 week academic and skills training program at the APA.
2. A 12 week on the job training OJT process where the recruit is under the supervision of a qualified field trainer (mentor).
3. A final one week training and testing period at the APA before graduation.

After recruits successfully complete their phase one training, they must apply to police forces in the Maritimes for the OJT positions. When a police force accepts an APA recruit for the OJT training period, there is a formal training agreement used. The mentoring agreement stipulates that the recruit must be placed with a “qualified field trainer” selected by the employer who is solely responsible for the recruit’s training and evaluation (APA, 2002). Any police officer can qualify as a field trainer by taking the APA leadership course, Supervision Level One, which deals with leadership in the mentoring process and the APA recruit assessment procedures. Police forces select officers that are considered good role models and trainers to attend the Supervision Level One course that allows them to be field trainers for the APA recruit training process. The leadership styles taught in the week long Police Supervision Level One courses are both

transformational and transactional as defined by Bass and Avolio (1993). Police officers trained in the Supervision Level One course are also used by their police forces to evaluate newly hired employees during their probationary period of employment.

The OJT formal training agreement requires each qualified field trainer to be scheduled to work with their recruit a maximum possible number of shifts in addition to their first two and last two weeks of OJT (APA). If the field trainer assigned to the recruit is absent, the agreement stipulates that they are to be replaced with another qualified field trainer (APA). Recruit training and assessment are accomplished using a structured system of recording 82 occupationally specific competencies and 14 general proficiency areas (APA, 2002). The field trainer is required to complete weekly written evaluations of the recruit, complete the 82 and 14 item marking system, and finally recommend whether or not the recruit continues in the police science program (APA). The socialization of a police recruit into their profession has been defined as the inclusion of values, attitudes, expectations and role requirements thought to be necessary for appropriate and effective behaviour as a full-fledged group member (Ellis, 1991). Included in this definition of attitudes is the critical concept of job and organizational commitment, which impacts on a police recruit's relationship with their employer and their motivation to improve within their profession. Extensive multi agency studies of police recruits in Canada and Australia support the premise that the majority of socialization occurs during the OJT and probationary employment periods. A Canadian cross sectional study comparing new police recruits with no training, police academy trained recruits with no job experience and newly hired police officers (8 to 20 months experience), revealed that the most significant

changes in attitudes, perceptions, and beliefs occurred in the first 12 to 20 months of street experience after academy training (Ellis). A 1995 study by the Australian National Police Research Unit on developing job and organizational commitment in police officers concluded that the changes in commitment levels of police officers varied most in the first 12 months of actual police service (Beck & Wilson, 1995). A second study conducted by the same organization found that, when a police officer's occupational commitment level decreases, the greatest drop occurs in the first 9 weeks of being first exposed to real policing duties (Beck, 1999). These studies support the concept that the time period in which police recruits are assigned to a field trainer and exposed to their leadership style is a crucial period in their developmental process into the police occupation.

In determining a measurement instrument for this research, the social structure of police forces, in relation to the recruits position, was considered in relation to what variable was to be examined and measured. Police forces maintain an active structure of hierarchical supervision over all the officers (Bahn, 1984), with the police recruit at the bottom of the hierarchy (Ellis, 1991). A combination of a quasi-military ranking system and a seniority mechanism that is often found in collective agreements places everyone senior to a recruit in a supervisory leadership role when they work with him/her in a dyadic relationship. Since the leadership imperative exists in all police mentor/protégée dyadic relationships as a social construct, then the dominant leadership style of the mentor is a variable that has significant effect on the quality of the training process (Sosik & Godshalk, 2002). Both police leadership styles and the mentoring educational environment have been rarely studied in formal research making it necessary to examine research in

other occupations to set the context for this research.

No primary literature could be located regarding any studies on causal relationships between police leadership training and the resulting leadership styles of attendees yet secondary literature regarding the importance of leadership training in policing is abundant. One thesis research paper examined the leadership styles of Australian police field trainers based on their gender, but the effects of training was not an issue (Panpopoulos, 1998). Research regarding other occupations ranging from business managers (Barling, Weber, & Kelloway, 1996), community leaders (Avolio & Bass, 1998), military leaders (Divr, 1998) and health care professionals (Corrigan, Lickey, Campion, & Rashid, 2000) have shown that leadership training causes changes in the leadership styles of attendees. The focus of my research is to determine if there is a causal relationship between the Holland College police leadership training course "Supervision Level One" and the leadership styles of graduates from this course.

General Research Problem Statement

As a police educator for the last 10 years, I have had the opportunity to work with police recruits and their mentors on a continuous basis. My experiences span from being a mentored recruit myself 24 years ago to teaching on the Supervision Level One course which trains and qualifies police officers as mentors. I am interested in exploring the relationships between the leadership training of police mentors on the Supervision Level One course and their resulting leadership profiles. Previous research has shown that the

attributes used to measure leadership styles can be affected by attending leadership training courses (Avolio, Bass, 1998; Barling, Weber, & Kelloway, 1996; Divr, 1998; Corrigan, Likey, Campion, & Rashid, 2000) and that the transformational leadership style is more highly correlated to the receipt of positive mentoring functions (Sosik & Godshalk, 2000). Primary literature on leadership styles and the importance of a proper mentoring process is abundant for various occupations, but not for the policing profession. It is hoped that this research will add to the current body of knowledge on police education and also be applied to improving the specific practices of training future police mentors. The long term goal being the improvement of police recruit training by qualified mentors which will result in better service to society overall.

The scope and description of this investigation into police mentors in the Maritime provinces will be ex post facto research using matched samples to locate any possible relationships between the attendance of the Supervision Level One course and the leadership style profiles of attendees. Trained police mentors will be given the Multi Factor Leadership Questionnaire (MLQ 5X which is designed to measure the leadership styles of the respondents (Bass & Avolia, 1997), and the results compared to a matched set of officers who have not taken the leadership training.

Operational Definitions:

Trained Field Trainer:	A currently active police field trainer who has taken the Atlantic Police Academy Supervision Level One course, also known as the Coach Officers Training course. These individuals are listed as “qualified field trainers” in the 2002
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Atlantic Police Academy Field Training Performance

Record on Job Training Agreement (APA, 2002). Note: this title is interchangeable with “Trained Mentor” as field trainers serve in a mentoring role to police recruits.

Untrained Field Trainer: A currently active police officer who performs the same tasks as a “trained field trainer” with a police recruit, but has not had the Atlantic Police Academy Supervision Level One course, also known as the Coach Officers Training course, or any other field trainers course. Note: this title is interchangeable with “Untrained Mentor.” Untrained field trainers train recruits under two circumstances:

1. They are assigned to a recruit as their field trainer (in the place of a trained field trainer) for the entire OJT process (12 weeks).
2. They replace an absent field trainer (trained or not) and in their absence they are responsible for the recruits training and supervision as is a trained field trainer but possibly not their final evaluation.

Leadership Style: Is defined as acts or behaviours exhibited by the mentor which influence a protégée (Bass, 1990) which can be qualified into three major types: Transformational, Transactional and Laissez Faire (Bass & Avolio, 1994)

which are measured by the MLQ 5X survey (Bass & Avolio, 1997).

Leadership Styles:

Transformational : Defined as exhibiting the following behaviours:

Idealized Influence: Leaders display conviction; emphasize trust; take stands on difficult issues; present their most important values; and emphasize the importance of purpose, commitment, and the ethical consequences of decision. Such leaders are admired as role models; they generate pride, loyalty, confidence, and alignment around a shared purpose (Bass & Avolio, 2000).

Inspirational Motivation: Leaders articulate an appealing vision of the future, challenge followers with high standards, talk optimistically and with enthusiasm, and provide encouragement and meaning for what needs to be done (Bass & Avolio, 2000).

Intellectual Stimulation: Leaders question old assumptions, traditions and beliefs; stimulate in others new perspectives and ways of doing things; and encourage the expression of ideas and reasons (Bass & Avolio, 2000).

Individualized Consideration: Leaders deal with others as individuals; consider their individual needs, abilities and

aspirations; listen attentively; further their development; advise; teach; and coach (Bass & Avolio, 2000).

Transactional:

Defined as exhibiting the following behaviours:

Contingent Reward: Leaders engage in a constructive path-goal transaction of reward for performance. They clarify expectations, exchange promises and resources, arrange mutually satisfactory agreements, negotiate for resources, exchange assistance for effort, and provide commendations for successful follower performance (Bass & Avolio, 2000).

Management-by-Exception:

Active leaders monitor followers' performance and take corrective action if deviations from standards occur. They enforce rules to avoid mistakes (Bass & Avolio, 2000).

Passive leaders fail to intervene until problems become serious. They wait to take action until mistakes are brought to their attention (Bass & Avolio, 2000).

Laissez Faire

Defined as exhibiting the following behaviours:

A non-leadership component leaders avoid accepting their responsibilities, are absent when needed, fail to follow up requests for assistance, and resist expressing their views on important issues (Bass & Avolio, 2000).

Specific Research Questions

The specific research questions for this research are:

1. Do formally trained police field trainers (mentors) have a significantly different profile of leadership styles than untrained field trainers who perform the same training activities?
 - (a) H_0 = The difference in mean ratings of transformational leadership scores for trained and untrained mentors will not be significantly different according to attendance of the Supervision Level One course at $\alpha = 0.05$ level.
 - (a)₁ H_1 = The difference in mean ratings of transformational leadership scores for trained and untrained mentors will be significantly different according to attendance of the Supervision Level One course at $\alpha = 0.05$ level.
 - (b) H_0 = The difference in mean ratings of transactional leadership scores for trained and untrained mentors will not be significantly different according to attendance of the Supervision Level One course at $\alpha = 0.05$ level.
 - (b)₁ H_1 = The difference in mean ratings of transactional leadership scores for trained and untrained mentors will be significantly different according to attendance of the Supervision Level One course at $\alpha = 0.05$ level.
 - (c) H_0 = The difference in mean ratings of laissez faire leadership scores for

trained and untrained mentors will not be significantly different according to attendance of the Supervision Level One course at $\alpha = 0.05$ level.

(c₁) H₁ = The difference in mean ratings of laissez faire leadership scores for trained and untrained mentors will be significantly different according to attendance of the Supervision Level One course at $\alpha = 0.05$ level.

Significance of the Proposed Study

The significance of this research can be seen in the following areas:

Knowledge of an enduring practice

Since 1971 the Atlantic Police Academy at Holland College in PEI, has been training police recruits for the Maritime provinces by using the two step process of police academy training followed by a mentored period of on the job training (OJT) with a police force. With the exception of two experimental classes in the late 1970s, which had no OJT, all recruits have had to pass their mentored on the job training period before graduating from the Police Academy. In the early 1980s, the APA saw a specific need for a Supervision Level One course which was designed to train police officers to be field trainers (mentors) for recruits while on their OJT. The leadership styles taught on this course were a combination of transformational and transactional styles of which transformational has been found to be more correlated to the receipt of positive mentoring functions by the protégée (Sosik & Godshalk, 2000). The APA is currently training 50 to

70 police recruits a year, all of which must pass a 12 week OJT period with a police force under the supervision of a police mentor (field trainer). There has been no research at Holland College on the effects of the leadership training of the Supervision Level One course on the more than 200 police mentors who have received leadership training and trained many more police recruits for more than 30 years. This research problem is significant in that it examines the effects of an enduring practice which could be modified and improved by the results of this study.

Relation to current social issues

As our society develops so must our policing agencies improve and move forward to meet the challenges of change. As a society we grant police agencies the public trust to enforce our laws and protect citizens and property without malice or prejudice. In granting the police agencies the powers of arrest and reasonable search and seizure, we hold them to strict codes of conduct and high ethical and moral behaviour. Before any of these processes take place, a citizen must undergo an initial screening process, testing, police training at an academy, and a mentored on the job training period under the leadership of an experienced police officer. The weight of literature supports the concept that mentors are more than teachers of skills and knowledge. They are directly involved in the forming of values and beliefs of a protégée as they undergo the socialization process into a new profession. This raises the issue of the importance of using trained police field trainers, with the appropriate leadership skills, as mentors for recruits in his/her on the job training process. The Police Academy phase of police training is based on academics and simulations in a para military style environment that does not lend itself to the observation

of a recruit's autonomous ethics or values. The OJT phase of training is crucial for both observing a police recruit's internal ethics and values under real conditions, and also in providing a mentor who will provide a role model and psycho-social support functions to help the recruit develop their ethics and values. Two of the three leadership styles being measured, transformational and transactional, have been shown to be the preferred styles in regards to the mentoring process that imparts important ethical values and commitment to the protégée. The third leadership style being measured, laissez faire, has the most significance to social issues as it reflects a police mentor who practices non involvement in the educational process of their protégée who could learn skills, ethics or values that are counterproductive to society. Prior research by Bahn (1976) linked the development of police misconduct and corruption to the police recruits initial on the job training period with their field trainer. The phrase "counter training" was coined as a term to define the negative effects on police recruits when paired with field trainers with poor leadership skills (Bahn, 1973). This research problem is significant in that it examines if there is any relationship between the leadership training of mentors and their resultant leadership styles. The effectiveness of leadership training on police field trainers directly relates to many social issues of police misconduct which could be a symptom of a poor initial training

Evaluates a specific practice at a specific site

At present there are only two police training facilities in Canada that have a para military system involving military regulations on marching and living in barracks as part of the police academy educational training. They are the Royal Canadian Mounted Police

(RCMP) and the Atlantic Police Academy. Of these two agencies only the Atlantic Police Academy has a leadership training course for police mentors for external agencies who then act as educators and evaluators for the police recruits before and after they graduate from the program. This practice is unique in Canadian police education and as such is significant in that it evaluates a specific regional situation.

Exploratory Research

While many Canadian police agencies openly document that they are using an educational mentoring process to train police recruits, there appears to be no published primary literature on any studies in Canada regarding the leadership styles used in this process. This research is not exploratory by general topic (relationships between training and leadership styles), but it is exploratory by its focus on the police profession in Canada, and the environment of a formal police mentoring process.

CHAPTER II

Literature Review

This research seeks to examine the causal effects of leadership training within the specific social context of police leadership as it functions in the mentoring process of training new police recruits. The concept of leadership has been an important part of the development of human beings since people began forming social organizations in which some type of hierarchy existed. In China, Confucius proposed laws of order and respect between subordinates and leaders, and in ancient Greece the philosopher Plato described his ideal Republic where leaders were philosopher-kings providing wise and judicious leadership (Sorensen, 2000). Together with his colleagues, Plato established the Paidea, one of the first examples of a leadership training school in early Greece (Sorensen). The English word leader appeared in the 1300s emerging from the root word leden, which appropriately meant "to travel" or "show the way." In 1532, Machiavelli's book, "The Prince," was the first published leadership book to deal openly with a leader's use of force within the state to maintain order and the concept that the pursuit of a stable government could condone amoral actions (Grolier, 1998). The term "leadership" appeared some two centuries later as it began to evolve into a separate topic of study (Sorensen).

It has been said that the scientific study of leadership, as a distinct topic in the social sciences, (as opposed to the study of leaders) did not fully develop until the turn of the 20th century (Sorensen, 2000). The earliest theory existed when much of society believed in the, "great man theory" in which leadership abilities were inherited in a blood line or granted by some divine process (Hallam, 2001). The great man theory held that

leaders were born not made, making leadership training for ordinary people to be generally considered absurd. The first formal critique of leadership abilities as a discipline was published in 1948 by Stogdill who critically examined previous literature regarding the personal factors associated with leadership (Rasmussen, 1995; Stogdill, 1948). Studies to this date primarily focussed on examining the individual traits such as birth order, intelligence, socioeconomic status, and child rearing practices as possible explanations for a subject's leadership ability (Bird, 1940). Under these "trait theories" it was assumed that potential leaders could be identified by the presence of certain traits. To be good leader one had to be brave, strong, intelligent, and capable of leading others, basically because others admired their traits (Hallam, 2001). Under these theories it was reasoned that some of the traits that made good leaders could be honed through training and practice, but you still had to be born with the potential. Leaders could be made, but only if they were born with the right stuff in them (Hallam, 2001).

The validity of trait-based leadership theories has been considered problematical in relation to theoretical reasoning. Research that specifically studies only the traits of subjects in leadership roles can suffer from a one-dimensional plane of rationale that seeks to find causal relationships from too narrow a perspective. The conclusion of these studies can suffer from the nominal fallacy in which the naming or categorizing of something (traits) is consider the same as explaining the phenomenon (Leadership) that exists (Manstaed & Hewstone, 1996). Trait theories which only study the leader tend to ignore the roll of the environment and the followers' effects on the leadership process. Conclusions can be flawed by a singular circular reasoning in which it is assumed that the

leader is the sole source of the leadership process; therefore, the traits of the leader are the cause of the process. From a tautological perspective, these types of studies state that, good leaders have the following traits, because the following traits make good leaders. In conclusion, trait-based theories have some research validity as part of a broader approach that takes into account things like situational circumstances, the environment, and the many other issues that exist in regards to the interaction with followers.

Research conducted in the 1950s and 1960s began to broaden the scope of leadership behaviour beyond the scope of trait classification. Surveys and other instruments were developed to measure both the leaders and follower's perceptions of leadership behaviour and compare the results with measures of group perceptions, attitude and organizational performance (Manstaed & Hewstone, 1996). Both bipolar and two-dimensional models of leadership began to emerge from the research. Theories eventually emerged that describe leadership as a continuum running between two antagonistic poles (Bass, 1990). Definitions of bipolar leadership styles such as democratic vs. autocratic, participative vs. directive and relations oriented vs task oriented began to explain leadership using basically an "either/or" mentality, or at best, a point along a continuum. While various theories and models differed in terms of their origins and focus they all dealt with the distinction between "follower/focus" or "group maintenance oriented behaviour," and "task-focussed" or "goal achievement oriented behaviour (Manstaed & Hewstone) . As theories developed and evolved, leadership styles were viewed as dimensions of leadership which could exist in various combinations in a leader. The flaw in many of these early studies was their failure to deal with the effects of different situations on leader

behaviour and the perceptions of the followers regarding leadership behaviours (Manstaed & Hewstone).

Next in the evolution of leadership studies came in the concept of situational or contingency-based theories which sought to identify the distinctive characteristics of the setting to which the leader's success could be attributed (Hoy & Miskel, 1987). Fiedler and Garcia (1987) focussed on situational factors that affected the leader's ability to influence followers and how these factors interacted to produce environments that were more or less conducive to either task oriented or relationship oriented leadership behaviour. Vroom and Jago (1988) developed a model which examined leadership in relation to short-term problem solving situations and the selection of a leadership style that was most appropriate to the situation. Leadership styles in this model ranged from autocratic to consultant to full group decision-making (Manstaed & Hewstone, 1996). A third leadership model mainly attributed to House and Mitchell (1974) who sought to articulate the combination of conditions and leadership styles that best clarified for followers the path between performance and reward. The assumption was that the clearer the path the higher the motivation and the more effective the leadership. A major theme of these contingency theories was that leaders must remain flexible to be efficient, even to the point of allowing followers to take a leadership role, if the situation so demanded.

In 1978, Burns coined the terms "transforming and transactional" as part of his model of the leadership process. In Burn's concept of transforming leadership, the leader influenced the beliefs, values and needs of the followers in a process by which "leaders and followers raise one another to higher levels of morality and motivation" (Burns as cited in

Bass, 1978). In contrast was the transactional leadership process which focussed primarily on compliance to group norms based on leader/follower exchanges of something valued (Manstaed & Hewstone, 1996). Included in the transactional leadership process was reward and praise for good performance and sanctions for undesirable performance. Burns described transactional leaders as those who motivated by appealing to the followers own self-interest while transformational leaders worked in the emotional realms of value, ethics, and morality. Burns looked at leadership more holistically as a process and not just a combination of recorded behaviours or traits. It is the opinion of some academics in the business world that no other individual charged the emergence of modern leadership studies as an academic discipline more than the writings of James MacGregor Burns (Sorensen, 2000).

In 1985, Bass, operationalized and refined Burns' ideas of transformational and transactional leadership into the Multi Factor Leadership theory which has been referred to as one of the most widely cited and comprehensive theories that encompasses a wide range of leadership behaviours (Bass, 1985; Bass & Avolio, 1993; Yukl, 1994). While Burns considered transformational and transactional leadership to be more or less opposite ends of a spectrum, Bass (1985) considered that a leader could have a profile that included both of these leadership styles and also some measurement of the tendency to avoid the leadership process, which he coined as the "laissez faire" style of leadership. Bass proposed that "transformational and transactional leadership are conceptually separate and independent dimensions that appear simultaneously in the behaviour repertoire of leaders" (Tejeda, 2001). The Multi Factor Leadership theory allowed for leadership to be examined

in a wide variety of situational circumstances in which leaders could be multidimensional in relation to their use of transformational, transactional or laissez faire styles of leadership.

Using the Multi factor Leadership Theory

Using the theories of transactional and transformational leadership, Bass (1985) set out with several colleagues to develop a research instrument capable of measuring styles of leadership. The initial research consisted of a sample of 78 executives who were asked to: describe the attributes of a leader who had influenced what was important to them in their roles in leaders, and explain how they thought the best leaders were able to get followers to go beyond their own self-interest for the good of the organization (Bass, 1985; Avolio and Bass, 1999). The results of this initial survey were sorted and analysed by 11 judges into transformational and transactional contingent reward leadership categories, and then these results were evaluated by 176 US Army colonels with extensive leadership training and experience (Bass, 1985). From this initial research, the first version of the Multi Factor Leadership Questionnaire (MLQ), was developed as a survey instrument to measure the leadership styles of individuals in relation to transformational, transactional or laissez-faire leadership styles. Over the next 15 years, the MLQ survey was revised several times based on ongoing research. The most recent revision of the MLQ occurred in 1999 when Bass and Avolio used a total of 3,786 respondents from 14 different samples in the United States and foreign firms to complete the Multi Factor Leadership Questionnaire, Form 5X (Bass & Avolio, 1999). Bass and Avolio used confirmatory factor analysis (CFA) using the computer program LISREL VII (linear

structural relationships) to determine if their survey results confirmed their proposed Multi Factor Leadership model. The LISREL model was introduced by Joreskog in 1973 as a computer program designed to handle research models with latent variables, measurement errors, and reciprocal causation (Joreskog & Sorbom, 1978). Sets of variables analysed by the LISREL VII computer program can be measurements of latent variables which are not observable but are related to other observed variables (Joreskog & Sorbom). In relation to the research of Bass and Avolio, the latent variables are the theoretical constructs of the various leadership styles in the Multi Factor Leadership theory, and the observed variables are the answers to the MLQ 5X survey. Using this type of covariance structure model to verify relationships in data has two main benefits:

1. Theoretical underpinnings must be provided by the researchers prior to their analysis.
2. The researcher can check the fit of the data to the theoretical model using inferential statistical methods (Agresti & Finley, 1997).

A drawback of using this type of analysis is that large sample sizes are required to obtain good estimates of effects. This was not a factor in the Bass and Avolio study which included 3,786 respondents from 14 independent samples (Agresti & Finley, 1997).

One of the most recent critical examinations of the MLQ and MLQ 5X for validity was conducted in 2001 by Manuel Tejada of Barry University, Florida. Tejada conducted an extensive critique of both the long (MLQ) and short (MLQ 5X) survey versions in relation to their psychometric properties. The analysis did not support the continued use of the full version of the MLQ because the confirmatory factor analysis failed to support the hypothesized structure of the MLQ in the samples studied, based on the a priori criteria

established for determining fit (Tejeda). This research recommended the use of the shorter version, the MLQ 5X, due to its internal consistency in all the samples studied and the evidence of reliability and construct validity, and the consonance with Multi Factor Leadership theory (Tejeda). In conclusion, Tejeda stated:

Multi Factor Leadership theory offered much promise in terms of integrating diverse perspectives on leadership across the full range of leader behaviour, follower reactions and situational attributes. Furthermore, the MLQ as a measure for Multi Factor Leadership theory offers a rich base of information that was carefully developed. (Tejeda, p.31)

Numerous studies have shown significant correlations between leadership styles, as measured by the MLQ survey, and leadership effectiveness in an organization. Research of this nature lends credibility to the Multi Factor Leadership theory in relation to the benefits of transformational leadership styles to an organization. In 1996, Lowe and Galen conducted a meta-analysis of MLQ literature using the following criteria for literature selection:

1. The research used the MLQ 5X to measure leadership style from the perspective of the subordinate.
2. The study must have reported a measure of leader effectiveness.
3. Sample size must have been reported.
4. A Pearson correlation coefficient (or some other type of test statistic that could be converted into a correlation) between leadership style and effectiveness must have been reported.
5. The leader rated must have been a direct leader of the subordinate. (Lowe & Galen, 1996, p.385)

A total of 39 empirical research studies were located that met the five criteria. Regarding the correlation between leadership effectiveness of the results of an MLQ 5X survey, the meta-analysis supported the concept that measurements conducted with the MLQ 5X

were accurately and consistently correlated with work unit effectiveness (Lowe & Galen). Since 1998, the MLQ 5X has been used in more than 200 research projects including master's thesis and doctoral dissertations around the world in the US, Australia, Canada, China, Poland, Israel, Austria, and Holland (Bass & Avolio, 1999).

Learning Leadership Skills

Various research to examined the effects of single leadership courses on influencing the behaviour or attitudes of the attendees in relation to the Multi Factor Leadership theory. In some research, the leadership style of persons who attended leadership training is measured directly by survey or interviews, while in other research the effect on the organization or the followers is measured and then associated to a change in the leaders' style of leadership. An example of measuring training effects in business is a rise in profits after a leader returns from leadership training. The direct empirical measurement of leadership training results has not been a topic of extensive research. In business, the research focus is often on examining the secondary effects of leadership training which are basically the improvements in the organization (profit, morale, staff commitment levels). These documented organizational changes are often logically associated to changes in the leaders caused by the leadership training without taking other possibilities into account. The value of using the MLQ 5X survey instrument to measure changes in leadership styles, is that it allows for a systematic measurement based on a well-researched theory of leadership. While direct specific causal effects are difficult to conclude, the fact that changes occur in the leader after training is received, shows that something has taken place after the training to alter their behaviour or perception of them.

Studies in professions, other than policing, have documented that leadership styles can be changed by formal leadership training courses. Corrigan, Lickey, Campion and Rashid (2000) used a repeated measures design in which rehabilitation nurses were pre tested with the MLQ 5X before and after a one day training period on leadership. The results were a significant change in the attendees perceptions of ideal leadership with the most significant improvements occurring in the concepts of individualized consideration (transformational style) and active management by exception (transactional). Barling, Weber, and Kelloway (1996) used an experimental control group design with an experimental group of 20 business managers who received leadership training while a control group received no training. The results of MLQ 5X evaluations after training showed that the trained experimental group had significantly higher ratings in regards to the transformational intellectual stimulation style of leadership. In comparison of the training effects on the organization, the followers whose leaders received training showed significantly higher levels of commitment and better financial performance than the control group whose leaders did not receive extra leadership training (Barling, Weber & Kelloway).

Bass and Avolio(1998) used a repeated measures design to measure the effects of leadership training. They also conducted 6 month and 2 year follow up studies to investigate if any changes in leadership style were enduring. In this research, 115 community leaders were rated in regards to leadership styles by their followers prior to leadership training. Immediately after leadership training, they were rated a second time which showed significant improvements in inspirational motivation and intellectual

stimulation and a significant decrease in management by exception. Of the original group, 76 subjects were evaluated 6 months and 2 years later to see if the leadership style changes had endured. The results found that the maintenance of the leadership style changes was directly correlated to the subjects stated goals for self improvement in the original training course. For example, all subjects who stated they wanted to improve their inspirational motivational skills maintained the increased skill ratings in that area 2 years after training (Bass & Avolio, 1998). This significant correlation existed for all the post training changes in leadership styles in all the 76 subjects tested after 2 years.

Divr (1998) conducted research using infantry platoon commanders from the Israeli defence force. Using an experimental and control group design, platoon commanders underwent additional leadership training based on the Multi Factor Leadership theory and were then compared to a control group who had not received the extra training. Post training investigation showed the experimental group to have higher ratings in the four areas of transformational leadership and also to be less likely to manage by exception. In comparing the followers of the experimental and control groups, the followers of the experimental group showed a higher sense of self-efficacy and belonging and were rated higher in four out of a total of six measures of objective performance conducted that were conducted six months following the additional training of their leaders.

While the previous studies focussed on the positive aspects of training, the negative aspects of leadership training were studied by James Bolt (as cited in Hesselbein, 1996, p.164). Bolt identified four major shortcomings in many leadership training

programs that resulted in leadership skills not being learned:

Training is not comprehensive: leadership is only one skill of many in need of development; ad hoc approaches to skill development are ineffective.

Training is offered in a "quick fix": isolated daylong or week-long seminars are unrealistic; to be effective it must be ongoing and long-term.

Training is generic and outdated: programs are not current and until recently, have largely ignored real world problems.

Training ignores leadership: many training programs are actually management training programs, tending to be functionally and technically oriented; participants discovered they were taught to manage but not lead. (Bolt, as cited in Hesselbein, 1996, p.164)

It has been suggested that a leadership development course might be an enjoyable exercise, but without some type of scorecard or measurement device to gauge the outcome, neither the company nor the participants can expect much in the way of results (Zenger, Ulrich & Smallwood, 2000). While the quality of a training course will no doubt affect the outcome of the adoption of new leadership skills, the MLQ 5 X survey has shown both credibility and validity as a potential scorecard to directly measure the effects of leadership training.

Leadership in a Mentoring Environment

In most behavioural research, mentoring and leadership are considered separate research areas. Research on mentoring is common in vocational training and educational research while leadership research is found primarily in business, political, and paramilitary studies. For these reasons literature specifically dealing with the effects of leadership styles on the mentoring experience were difficult to locate. Robert Bass, one the cofounders of the Multi Factor Leadership theory stated that mentors with their greater knowledge, experience and status, are necessary to help develop their protégée within an organization

(Bass, 1985). The beneficial effects of the mentoring process have been widely researched in regards to the benefits to the protégée. Some examples are: job satisfaction (Chao, 1997; Kerka, 1998; Scandura, 1997; Seibert, 1999), socialization (Allen, McManus, & Russell 1998; Chao, 1997; Kerka, 1998), stress reduction (Sosik & Godshalk, 2000; Allen, McManus & Russell 1998), self esteem (Koberg, Ross & Goodman, 1996; Scandura, 1997; Seibert, 1999) commitment to an employer (Koberg, Ross and Goodman; Scandura; Seibert;), and development of employee potential (Kerka). Even less common are research studies regarding the negative aspects of mentoring relationships where the poor leadership skills of the mentor adversely affect the protégée (Scandura, 1998; Eby, McManus, Simon & Russell, 2000). Research studies support that the mentoring process is an environment where leadership styles can have lasting effects, either positive or negative, on the protégée.

Sosik and Godshalk (2000) researched leadership styles in relation to their correlation to the delivery of positive mentoring functions for the protégée and the possible negative aspects of job stress. The MLQ 5X instrument was used to determine leadership styles of the mentors and instruments developed by Noe and Parasuraman (1988) and Greenhaus, and Granrose (1992) were used to measure mentoring functions received and job-related stress respectively. This research found a strong positive relationship between mentor transformational leadership style and protégée receipt of positive mentoring functions. A weaker positive relationship was found between transactional contingent reward leadership style and receipt of positive mentoring functions. The leadership style of laissez-faire was found to be negatively related to receipt

of mentoring functions. In relation to job stress, transformational leadership styles were negatively related to the job stress experienced by the protégée. While no significant relationship could be found in relation to transactional contingent reward or laissez-faire leadership styles in relation to job-related stress, it was found that mentoring functions were negatively related to job-related stress (Sosik & Godshalk, 2000). This research documents the possible direct effects of leadership styles on protégées in mentoring relationships. No research of this nature has been conducted on police mentors and protégées but research on the socialization process of police recruits has shown that the period of time they are with their mentors can be the most influential period of their career. It would seem reasonable to draw parallels for the purpose of designing police mentoring research from this business sector study.

Two Australian and one Canadian study regarding police recruit socialization and organizational commitment, all confirmed that the time period in which a recruit is under the supervision of their field trainer / mentor is the most influential period of a police officer's career. In the four Maritime provinces police recruits are assigned to a field trainer / mentor for 12 weeks during their on the job training as part of the Atlantic Police Academy Police Science course. After the students graduate, they are again placed with field trainers for periods lasting for 1 to 2 years, as part of their probationary period for employment. In Ellis (1991) study of Canadian police recruit perceptions, attitudes and beliefs, all the subjects studied showed that the most significant changes in their values, beliefs and attitudes, occurred in the first one to two years of policing, the time they were partnered with their field trainers. This study covered police recruits from Ontario,

Alberta, and British Columbia during their police academy training and on the job training process (Ellis, 1991).

A study of Australian and New Zealand police officers, regarding the development of organizational commitment across their career span, documented that when organisational commitment decreased in police officers, the greatest drop occurred during the first 12 months of a police officer's career while they were under the leadership of a field trainer (Beck & Wilson, 1995). The researchers stated that the effects of the recruits' mentors and training officers appear critical in the early development of organizational commitment, yet this is one area that has not received any research attention (Beck & Wilson, 1995).

Beck (2000) conducted a follow up research study in Australia and New Zealand to further investigate the optimizing of organizational commitment of police officers. In this second study of organizational commitment, the results showed that the greatest drop in organizational commitment occurred in police recruits within the first nine-week period of exposure to "real police work" with a field trainer / mentor (Beck). One of the final recommendations of this research was the reorganization and revitalization of leadership training for police mentors in Australia and New Zealand (Beck).

The research of Mullins (1992) also summarizes the importance of the OJT mentoring process in police educational process. A sample of 41 police recruits who had completed a 26 week basic police academy course were rated for on the job performance using 25 competency skills that included officer safety and other verbal and physical skills. The ratings obtained for OJT performance were compared to the academic ratings of each

police recruit obtained from their prior police academy training. In all 41 recruits, there was almost a total lack of correlation between the recruits' police academy marks and standings and how well they performed on the job (Mullins).

The training and evaluation model used in this study is similar to the training paradigm of the Atlantic Police Academy where academic marks precede skill ratings by field trainers/mentors during on the job training. While this study is not about leadership or mentoring, it does draw emphasis to the importance of the OJT process in predicting the actual job performance of future police officers.

Leadership Research in Canadian Policing

While police leadership training exists across Canada at the various police academies, both at the provincial and federal levels, an extensive search using the resources of UPEI, Mount Allison University, the Atlantic Police Academy, the RCMP Learning and Development section, and the Canadian Police College yielded only three Canadian primary articles regarding empirical research into police leadership in Canada. The reason for the lack of primary research into police leadership could be related to the fact that Canada has been widely criticized in regards to the lack of research in the field of policing. In the mid-1980s the federal government ceased funding to the federal Solicitor Generals' Research Division and also stopped funding the Canadian Police College Research Section and the Canadian Police College Journal. In the United States, England, and Australia, the amount of applied police knowledge gained through research has been dramatically expanding while this type of applied police research in Canada has been steadily declining (Murphy, 1999). With the exception of a few major police agencies in

Canada, included the RCMP, police forces have no research sections, no research budget, and no trained researchers on staff (Murphy). From 1985 to 1999, Canada had no single government, public, or private agency that recognized social science based police research as part of its mandate (Murphy). In summary, the police research environment in Canada, despite ongoing academic and police interests, can be described as underdeveloped, underfunded and increasingly marginal to policymaking (Murphy). At present, there is no independent group in Canada examining police policy issues as there are in the US, the UK, and Australia (CACP, 2002). Much of the cause of this is that "government sponsored police research has been reduced to the point of near extinction" (CACP).

In 1998, the Canadian Police College (CPC) Advisory Committee made recommendations for the redesign of their training programs around a set of researched specific competencies. Because the CPC conducts leadership training, part of their research included the examination of several leadership models across Canada. The result of their historical research was the CPC Leadership Competency Model which was a synthesis of models from the RCMP, the Federal Public Service, Banff Center for Management, the Justice Institute of BC, Ontario Police College, the Ontario Provincial Police, and Federal Law Enforcement Training Center (Ciaccia, 2000). The CPC leadership competency model consists of six core competencies that are further broken down into approximately 300 leadership behavioural characteristics (Desroches, Duquette & Gregoire, 1998). The six core competencies are: (a) continuous personal growth, (b) stewardship, (c) communication skills, (d) critical thinking, (e) relationship building, and (f) organizational awareness and renewal. Each of these core competencies includes a set

of clustered sub competencies and associated behavioural characteristics in relation to leadership (Desroches & Gregoire, 1998). Upon viewing the CPC model with more than 300 behavioural characteristics, it becomes obvious that the result of this research was an attempt to provide an all-inclusive list of what good leaders do, which ended up as a micro managing approach as opposed to leadership principles or styles. Many of the action verbs and adjectives of the CPC Leadership Model behavioural characteristics can also be found in the Bass and Avolio literature on transformational and transactional leadership (Bass & Avolio, 2000; Desroches et al., 1998). In relation to educational leadership concepts, the CPC concept of stewardship shares many ideals with Sergiovani (1992) who described stewardship as a leader of leaders who uses servant leadership styles (Sergiovani, 1992). An important difference between Sergiovani's "stewardship" and the CPC stewardship model is that Sergiovani stated that in true stewardship the rights and prerogatives inherent in the administrators position move to the periphery while nothing of this nature appears in any of the CPC model (Sergiovani, 1992; Desroches et al., 1998). As enlightened as the material in the CPC model appears, the lack of any mention of administrators setting aside the importance of rank status and privilege to be "steward leaders" makes the model appear unfinished because it is unable to relinquish the old para military concept that "rank has its privilege" that many people believe still exists as an unwritten rule in police leadership models.

I believe the CPC's leadership models extensive 300 plus micro-leadership skills combined with the lack of an objective leadership measuring instrument to complement the model, makes this model more suitable for focus or discussion group research rather than

empirical measurement research. This CPC model was used as a guideline in two other Canadian police leadership research studies which sought to examine and rate leadership skills based on the responses of specific police forces.

Using material from the CPC study, Anderson and Plecas (2000) conducted research for the Vancouver Police Department to determine the existing leadership culture and leadership skills that were present on the police force. The results were a similar model to the CPC model with four main leadership themes. These include :

(a) communication and relationship development (b) planning and organizational development (c) problem solving and conflict resolution, and (d) human resource leadership and development. Under these four main themes are 49 sub themes that define good leadership. Like the CPC study, this research sought to define what was considered important to leadership in the form of a lengthy list for the purpose of further research and discussion.

Ciaccia (2001) used the Vancouver model and the CPC model with focus groups and a survey to investigate, "an employee assessment of leadership skills and competencies" on the New Westminster Police Force, British Columbia. The results of this study was an extensive list of 60 leadership skills which were classified under five leadership domains similar to the Vancouver Police study (Ciacci). Ciaccia's five leadership domains were: (a) communication, (b) relationship building, (c) planning and organizational development, (d) human resource development, and (e) problem solving and conflict resolution. In relation to the ratings of the 60 leadership skills, the category of skills that was rated the highest overall and also rated "most important" (a 5 out of 5

rating), was the relationship building domain skills (Ciaccia). The 12 skills in this domain had the highest average score of 4.2 out of 5, and made up 40% of the total list of all 60 skills that were rated as most important. Ciaccia commented that many people consider the "mechanistic hierarchies of police forces to be grounded in transactional command and control philosophies" which, if true, would have resulted in lower ratings in the relationship building domain and possibly higher ratings in the "communication" and "planning and organizational development" domains (Ciaccia). Contrary to expectations, only 3 out of 15 communication skills were rated as "most important," and none of the planning and organizational development skills were rated as "most important" (Ciaccia).

All three of the Canadian studies were primarily a process of collecting or rating the best practices of leadership models and leadership behavioural characteristics. There is no apparent attempt to research or record any aspects of poor leadership, such as the laissez-faire leadership style. In the Vancouver and New Westminster studies the worst rating a subject could give a leadership behaviour was "not important at all" on a Likert type scale. The term "not important" does not imply that the skill is negative or adverse, just "not significant". This type of "only rating the good" research is also present in some mentoring studies and has been commented on as an incomplete research paradigm (Scandura, 1998, Eby, McManus, Simon & Russell, 2000). In his research on the negative aspects of leadership in mentoring, Scandura cautioned against this type of one way research that only seeks to investigate and gather the positive aspects of a process. If a research design basically seeks only to "define or rate the positive aspects of leadership" there tends to be a buildup of a halo effect in literature where "leadership as a concept" is

considered only good and anything bad is simply seen as "not being leadership." The strength of using the MLQ 5X instrument, rather than a comparison to these compilations of good practices, is the ability to examine the potential for both the beneficial and adverse effects of leadership styles which equate to the overall leadership practices of the respondents.

None of these Canadian studies dealt with the measurement of defined leadership styles or the possible effects of leadership training on leaders. In the New Westminster study, Ciacchi (1998) stated that the leadership training of every officer is a critical priority in preparing for the future in policing, but no suggestions of measuring the effectiveness of training were alluded to. He further stated that police agencies are actively using leadership development courses, and while studies acknowledged that these courses are important, little is actually known about their effectiveness. The trend of not measuring the effectiveness of police leadership training is not unique to Canadian studies but appears to be common across the profession in most countries.

In 1987, the Canadian Association of Police Educators (CAPE) was formed with a mandate to improve the quality of police education in Canada. A search of the CAPE web site and a brief interview with the east coast director of CAPE, David Carty, indicated that the organization's main focus is not on conducting empirical research since it is basically a "fraternal organization" which meets yearly at conventions to share ideas and best practices (D. Carty, Regional Director of CAPE, personal communication, June 12, 2002).

The Canadian Association of Chiefs of Police (CACP) began forming a "think

tank" group in 1997, the Police Futures Group, "for examining issues likely to influence the future of policing in Canada (Murphy, 1999; CACP, 2002). This organization publishes yearly newsletters and does research on a contract or request basis. A search of this organization's web-based library and newsletters yielded secondary literature generated from researchers who reported best practices already in effect and discussion or forum results. In a partnership between the CACP, the RCMP, and the Federal National Research Council, the Canadian Police Research Council (CPRC) was formed in the late 1990s. A search of this agencies research database using the keyword "leadership" yielded no results. By examining the lists of studies done by this agency, it is apparent that the focus of their research is in the areas of technology related matters (for example, best design of a police riot helmet) and not the humanities or social issues such as leadership (D. Carty, Regional Director of CAPE, personal communication, June 12, 2002).

In 1998, the CPRC signed the first agreement of its kind in Canada to share police research data between the United Kingdom and Canada and a similar agreement was signed the following year with the United States (CACP, 2002). Canada's lack of interest in police research seems obvious by the fact that it took until almost the end of the twentieth century for Canada to develop agreements to share police research information with the US and England. Murphy (1999) explained the continuation of the vacuum in Canadian empirical police research as a result of the generally supportive and undemanding political attitude toward police agencies and the resulting "performance indifference" that leads Canadian police agencies to rely on American and British research rather than conduct research that our government is unwilling to fund (Murphy). Due to

the void of Canadian police research, the data examined for this study in regards to police leadership was limited with regard to Canadian content and primary literature from the United States and Australia/New Zealand was drawn on to compensate.

Empirical Research of Police Leadership

Policing has a rich history of hierarchical paramilitary leadership structure that many feel still endures today despite studies that appear to show the contrary (Ciaccia, 2001). While the need still exists for a paramilitary leadership structure when police agencies are conducting paramilitary operations such as tactical Special Weapons And Tactical team raids, this aspect of policing forms a very minor part of the organizations overall function in society. Most police forces have realized that they must use the team building and team problem solving leadership processes if they are to keep pace with changing times. Despite this realization, every major police force in Canada still has a hierarchy based rank system that was originally designed so the singular leader at the top: supplied all the answers, granted all the authority and received privileges and benefits due to their position of rank. While the strict application of this "top down" system is not used today as it once was, the structure remains as does the sequential ranks that can interfere in team leadership exercises where member equality is important. A finite definition of "police leadership" is at best problematical since police science textbooks and university courses about police leadership refuse to state a definition, but instead defer to several models and theories (Sheehan & Cordner, 1998; Ciaccia, 2001). The problem with using strictly business oriented models or definitions of leadership in policing is that there is a fundamental difference in the dispensability of leadership between business and policing

(Ciaccia). In the business world, leadership is tied to production and profits which sustains the company. In a police agency, leadership need not exist in order for the agency to still function fairly well in society. For example, if each individual police officer effectively answers all their calls, acts on any violations they witness, and renders assistance when needed, most of the organizational policing objectives will be met without any application of leadership at all (Ciaccia). While this situation would be characterized as unacceptable the fact remains that police agencies, much more than businesses, can function and coast to some degree without active leadership. Modern police leaders are challenged to blend traditional skills of management with the more contemporary leadership styles in order to motivate employees, develop organizational vision, challenge the status quo, and inspire creativity in problem solving (Ciaccia).

In 1998, Fagan conducted an American study using a matched set of samples of protégée who participated in either a formal or informal mentoring training process as part of their OJT. While the study is not specifically about the leadership styles of field trainers, there is an implication regarding leadership training. Fagan states that most Field Training Officers receive formal leadership training before being assigned a recruit in a formal mentoring process. The results of the study showed that the police recruits who were assigned a trained mentor had significantly higher job satisfaction and were more likely to, gain from the mentor the tendency to be disciplined and hard-working (Fagan). This study supports the concept that the formal leadership training of police mentors (Field Training Officers) has significant effects on the outcome of the protégée training (Fagan). There can be no inferences drawn as to whether the Fagan study shows that

leadership styles were affected by training, only that in this study the formal leadership training of police mentors appeared to affect the training outcomes of the recruits in a positive way.

Deluga and Souza (1991) studied the prevalence of transformational and transactional leadership styles in relation to the influencing behaviour between subordinates and superiors in a major American police department. This research sought to examine what leadership styles were most commonly used between subordinates and superiors during the process of trying to influence behaviour. The determination of transformational and transactional leadership styles was investigated using the MLQ 5X survey. Because police agencies have a paramilitary environment with structured reporting relationships, formal ranks and military honours/courtesy codes, the researchers predicted that transactional leadership style would be the dominant style used in influencing behaviour (Deluga and Souza). Contrary to the researcher's hypothesis that, transactional leadership would be the dominant style used, the result showed that transformational leadership styles were more closely associated with influencing behaviour than transactional leadership styles (Deluga and Souza). This researchers' assumption that transactional leadership styles are the dominant style used in public organizations such as government or military agencies were also held by Lowe and Graen (1996) prior to their meta-analysis of leadership styles in public and private organizations. In an analysis of 46 research studies of the transformational and transactional leadership styles in private and public organizations (not police agencies) it was concluded that the prevalence of transformational leadership in public organizations was more commonly observed than in

private ones. The implication of these two research studies is that the transformational leadership style may be the dominant style used in police forces and possibly that leadership training may have the most effect on the use of transactional and laissez-faire leadership styles.

In relation to the mixture of transformational and transactional leadership styles in police agencies, Scott (1996) felt that both were needed, but that police agencies needed to move more toward the transformational model (Scott). Quoting 40 years of studies done by various researchers on leadership, Scott felt that, transactional leadership was an effective means of maintaining and/or achieving acceptable standards of performance and that employees must know the responsibilities and the potential rewards pertaining to maintaining sufficient standards of performance. While transactional leadership is required to some extent in policing, Scott felt that without transformational leadership, transactional leadership would maintain the status quo of the organization and stifle change within police organizations. While transactional management deals with relatively static structures, the realms of change, inspiration, vision and true leadership in policing belong to the transformational leadership style (Scott). Scott concluded that leadership was required at all levels in a police force, which supports this research of the leadership styles of one of the most influential positions in a police force in regards to socialization into the occupation, the police field trainer/mentor.

The most similar study to this proposed research was an Australian study done by Frances Panopoulos (1998) who studied the leadership styles of Australian police mentors in relation to any causal effects of gender. In this Australian study the researcher used the

MLQ 5X instrument to measure the leadership styles of male and female police, "EDO's Education and Development Officers" who are the equivalents of the field trainers being studied in this research. In this research, the MLQ 5X was given to a junior and senior group of protégée for the purpose of rating the leadership styles of their field trainers. Since this study dealt with the protégée' perceptions of their leaders, the research design of using the MLQ 5X on protégée to rate their mentors was appropriate. Panopoulos focussed her research on transformational and laissez-faire styles of leadership and while she gave the complete MLQ 5X survey to all 356 subjects, her research paper does not report the transactional leadership style results of the surveys (Panopoulos). The results of this study showed that the junior protégée rated the male mentors as significantly more transformational and effective than their female counterparts. This finding ran counter to the research prediction that the nurturing aspects of transformational leadership would be more common in female mentors than in males (Panopoulos). In regards to the ratings of police mentors done by the senior protégée, it was determined there was no significant difference in the ratings of transformational and laissez-faire leadership styles of mentors based on gender. The conclusions of the study were tentative and stated that one of two possibilities existed: either real differences existed in the leadership styles of female police mentors based on whether they were with junior or senior recruits, or the perceptions of recruits changed regarding the female mentors as they become more senior (Panopoulos). This research was reviewed because it was the only research that could be located in which the leadership styles of police field trainers were empirically measured. While gender is a concern as a variable in any research design, it is not an issue in the current

research proposal for two reasons:

1. The population sample being studied contains 2 females out of the total 70 subjects.
2. To control for any leadership style differences caused by gender as recorded in the research done by Panopoulos (1998) the matched sets of mentor data will be matched for gender so that only same gender results will be compared.

While Panopoulos provides an adequate rationale why transformational leadership results were excluded from the study, the inclusion of them would have possibly given more insight into what leadership processes were taking place.

The only other similar study to this research that could be located was an American study done by Morreale (2002) who studied the leadership styles of police supervisors in relation to the effect on their subordinates: job satisfaction, willingness to put forth extra effort, and perception of leader effectiveness. This study used the MLQ 5X instrument to measure the leadership styles of existing police supervisors by surveying subordinate line officers in regards to their perceptions of what leadership style (transformational, transactional, or laissez-faire) their immediate supervisor had. The leadership styles were then compared with the line officers evaluation of their supervisors effectiveness as a leader and the line officers self-reported job satisfaction and willingness to put forth extra effort in their work. Morreale (2002) focussed his research on current employees, not recruits, and out of a random sample of 465 line officers in midsize police agencies in the New England states he based his findings on 177 completed MLQ 5X surveys, a 38% return rate. The results of this study showed that there was a strong positive correlation between a supervisor's transformational leadership style and their

effectiveness ratings and the job satisfaction and extra effort of their subordinates (Morreale). A strong negative correlation was found between the laissez-faire leadership style and leadership effectiveness ratings and the job satisfaction and extra effort of subordinates (Morreale). No correlation was found on any of the three ratings in relation to the transactional leadership style (Morreale). The conclusion of this study supports the results of studies in other occupations that indicated the benefits of the transformational leadership style for job satisfaction (Chao, 1997; Kerka, 1998; Scandura, 1997; Seibert, 1999) and the adverse effects of the laissez-faire leadership style on subordinates (Scandura, 1998; Eby, et al., 2000). Morreale's study is similar to the current research in that it used the MLQ 5X survey to measure police leadership of a sample population that is as geographically similar as possible to this study (New England States versus Maritime Provinces) since no study of this type has been conducted in Canada. The main difference in the use of the MLQ 5X is that Morreale used subordinates to rate their supervisors leadership styles while the current study uses the self rating process to rate trained and untrained field trainer mentor leadership styles. Morreale's study deals specifically with the supervisor/subordinate work relationship which has a parallel in the current study that focuses on the mentor/protégée educational relationship. The parallel exists in the concept that the field trainer as a mentor is considered the police recruit's "immediate supervisor" in relation to the formal training agreement for "on the job training" (FTPR, 2002). As the police profession relies heavily on a hierarchical rank structure for organizational purposes, the police recruit is in a subordinate role with their field trainer and all other supervisors on the police force are designated as their supervisors (FTPR). The similarity

ends there as the supervisory relationship between a police recruit and their field trainer mentor is part of an educational process and not strictly an “employee/employer” relationship as in Morreale’s study.

The literature review research supports the concept that leadership styles can be affected and changed by a formal training process and that the changes can persist for up to two years. The multi- factor leadership theory allows us to quantify and measure leadership styles in the three domains of transformational, transactional and laissez-faire. These three domains of leadership have been shown to be part of the multidimensional leadership profile of a mentor/protégée relationship. Studies support that the mentoring process is a very powerful training paradigm and that the positive and negative results of this process are greatly determined by the leadership profile of the mentor.

Specific research into police training has shown that the recruit mentoring period of OJT is the most influential period in a police officers career and it may be a better indicator of their future performance than academic marks. The research on the impact of police leadership styles has supported the results of mentoring studies in other professions that leadership styles greatly affect the socialization, education and job performance of police officers. The absence of published research regarding the affects of the leadership training on police mentors indicates a need for research of this type to be conducted.

This study seeks to measure the effects of leadership training on police field trainers/mentors leadership styles using the Multi Factor Leadership theory and the instrument MLQ 5X that has been used successfully across many professions including policing. While it may be true from a global perspective that a police agency can meet its

organizational objectives without direct intensive leadership, all the research on mentoring and the police field trainers' influence on recruits shows that leadership is essential in the mentoring process if recruits are to become ethical, dedicated public servants. To badly train recruits or to not expose them to good leadership practices during the most influential period of their career would be to, over time, rot the morale and organizational commitment of police force from the inside out. Studies on the effectiveness of police leadership training are long overdue in Canada if we, as a society, are to improve the educational and operational functions of our police agencies whom the public trust is not lightly given.

Chapter III

Design and Methodology

Sample

The entire population of police mentors who graduated from the Atlantic Police Academy Supervision Level One course from April 1999 - April 2002, a total of 35 subjects, as determined by the Holland College course records, was contacted directly by mail and invited to take part in this research. The 26 returned MLQ 5X surveys represented a 74% return rate of the population under study. A second identical survey was given to police officers (on the same and different police forces) who had not taken the supervision training of the first group, but who had served as field trainers for police recruits. Included in the surveys was a questionnaire to obtain biographical data for matching.

Surveys of the second group were given out until a paired set of 26 individuals could be constructed based on the matching of the biographical data of the first group. The matching characteristics used were age, gender, experience, education, and number of recruits trained.

Instrumentation

The survey method of research was chosen as the most cost efficient method of gathering information from subjects across the scope of the three Atlantic Provinces as there were no field trainers from Newfoundland trained in the last 2 years. The survey instrument used with trained and untrained police mentors, was the *Multi Factor*

Leadership Questionnaire (MLQ 5X) short form, 2nd edition, designed to measure the leadership styles of supervisors or mentors. This survey was developed by Bernard Bass and Bruce Avolio of the Centre for Leadership Studies at Bingham University, NY. Permission to use the survey was obtained from the commercial test distributor in California, "Mind Garden Inc " (www.mindgarden.com) that supplies the survey and a complete manual for scoring and administration. The survey (see Appendix A) is a 45-item questionnaire requiring leaders to rate themselves on a 4-point scale in regards to attributes that measure leadership styles associated to three leadership types: laissez-faire, transactional, and transformational. The results of this survey provide a comprehensive description of the leadership attributes and styles of formally trained and untrained police mentors.

The MLQ 5X has been shown to be a psychometrically sound instrument for measuring leadership styles in a variety of occupations ranging from the US military to business agencies in Canada, US, and foreign countries (Avolio, Bass & Jung, 1997; Bass & Avolio, 1997; Bass, 1998). The construct validity of the MLQ 5X survey was substantiated using 14 independent samples (3,786 respondents) from various agencies in three countries (Bass & Avolio, 1995). These underwent a confirmatory factor analysis regarding the validity of the survey measured components of leadership (Bass & Avolio). The first group of samples taken (nine agencies, $n=2,154$) was combined with the second set samples ($n=1,706$) to conduct a cross-validation examination of the MLQ 5X survey (Bass & Avolio). A reliability study used multiple survey ratings by co-workers of the same leaders in the nine agency group ($n=2,154$) using the MLQ 5X survey. Reliability

scores for each leadership factor scale ranged from .74 to .94 based on multiple raters of the same leader using the MLQ 5X (Bass & Avolio).

To maintain anonymity in the initial survey of trained mentors, each survey was coded with a unique alpha numeric designation ranging from one to the final number combined with letters showing that the subject is a trained mentor "T" and what province the survey was done in: NS, NB, and PE, (ie: T20NB). There were no field trainers trained from Newfoundland in the last 2 years. Once the first survey data was collected, the second survey for the matched set of untrained mentors was identically coded using the matching data from the first set with the exception of a "U" rather than a "T" to designate an untrained mentor. For example, "U34NB would be a match with T34NB." The second survey results were anonymous but matched to the first set of data.

Procedure

Once approval was granted by the University of Prince Edward Research Ethics Board, then letters requesting permission from police chiefs to conduct the survey were sent out (see Appendix B). All letters to chiefs were followed by phone calls to confirm that permission to conduct the survey was given. The population of trained mentors were directly mailed surveys at their police forces, complete with an explanation letter (see Appendix C), a consent form (see Appendix D) and two return envelopes. The two return envelopes were pre-addressed and postage was attached to allow the subjects to return the consent form separate from the returned survey to ensure anonymity. This procedure ensures that completed surveys cannot be matched to specific individuals or police agencies.

Completed consent forms and surveys mailed back were collected and the biographical data was summarized into groupings of age, years of police service, number of recruits trained, and education. The second survey of untrained mentors was conducted by surveying members of the same and other police forces who had not had leadership training but who had served as a field trainer for police recruits. The same process of double envelopes was followed with regard to the second survey administration to ensure anonymity. To make the process more efficient and encourage a higher return rate, some of the second survey envelopes were hand delivered by myself to police trainers rather than being sent by mail. After 49 surveys were collected from untrained mentors, it was possible to construct a matched set for the 26 trained respondents. The process of examining the biographical data consisted of the following procedure designed to gain a matched set:

Gender: 100% match obtained.

Age: was matched within the range of 0 to 10 years, an 85% match was obtained.

Police Service: was matched within the range of 0 to 9 years, an 88% match was obtained.

Number of recruits trained: was matched within the range of 0 to 8 recruits, an 88% match was obtained.

University Degree: 85% match of university degree status.

Other Education: 65% match of other courses taken.

The results of the biographical matching process was a set of 26 pairs which were scored using the MLQ 5X score sheet (see appendix E) to determine the leadership style ratings for each individual.

Data Analysis

To determine the answer to the specific research questions on page 9, three statistical analyses were completed on the data.

1. A matched sample *t test* was conducted on the transformational leadership style scores of the matched set of trained and untrained police mentors.
2. A matched sample *t test* was conducted on the transactional leadership style scores of the matched set of trained and untrained police mentors.
3. A matched sample *t test* was conducted on the laissez-faire leadership style scores of the matched set of trained and untrained police mentors.

Limitations

The power of a matched sample *t test* is related to the quality of the matching process (how close a match is obtained) and the degree to which the matching variables are related to the performance being measured, leadership styles (Evans, 1998). The variables of age, education, police service, and number of recruits trained was matched between the two groups as closely as possible. Because the total population was limited (police mentors in the three Maritime provinces) exact matching was impracticable. With the traits utilized matched as closely as possible between the two groups, then any significant differences found between the groups would be expected to be more valid than in situations where matching was less exacting or not utilized. Because the nature of this study involved a small sample size of a limited population, the matching process was utilized to increase the power of the *t test* by decreasing between group variance. It was only possible after 10 months of survey collection to match in the 80% range on four out

of the five variables. Ideally, with larger populations, the matching process could be expected to be higher and thus account more fully to limit the effects of between group variance due to extraneous variables.

A pretest - post *t test* design of this study would rule out matching issues by administering the MLQ 5X to a group of police officers before and after they received the formal Supervision Level One course to see if their preferences toward a leadership style changed. This design was not practical in this venue because the police supervision course was only held once a year and the class sizes were minimal.

Some of the subjects may have tended to answer the survey questions with the answers that they perceived were the proper way to lead rather than the way they actually lead their protégée in the mentoring process. This "faking good" type of behaviour can be detected on lengthy surveys by the use of repetitive questions worded differently that are designed to give an indication of dishonest selections. The MLQ 5X survey does not have the ability to directly detect "faking good" behaviour using multiple questions. The double return envelope system was used to ensure a high degree of confidentiality and anonymity for the purpose of eliciting honest answers. Because surveys are anonymously mailed, separate from consent forms, there is nothing to gain from "faking good" answers and no possibility of consequences from answering lack of leadership, "laissez-faire," questions honestly (Bass & Avolio, 1995). The drawback is that no regional or agency summaries or analysis can be done on the data.

The population from which the research samples were drawn consists of police officers in the Atlantic Provinces of New Brunswick, Nova Scotia, and Prince Edward

Island who exercised their leadership styles as mentors (trained and untrained) on new police recruits. While mentoring is used across Canada to train police recruits, this study drew on subjects from only one region of a vast community of police mentors. The relevance of these results to the rest of Canada's larger police population will be limited to generalizations regarding the possible effects of short leadership courses within a 3 year time span. Any findings of leadership styles being more homogeneous in one group may be relevant in regards to directions for further research in other police agencies and with further research in the Atlantic Police Academy leadership courses.

CHAPTER IV

Results

Using the class lists of police officers who had taken the Supervision Level One training course from 1999 to 2002, all 35 field trainers were invited to participate in this research. From the total of 35 surveys distributed, 26 were returned, resulting in a return rate of 74%. The biographical data taken from this first group was summarized so that a second group of untrained mentors could be matched to this first group. Surveys were distributed to police officers from the same and other police forces until a matched set was possible from the returned surveys. Approximately 70 surveys were distributed with 49 being returned yielding a return rate of 70%. From the 49 returned surveys, there were 26 completed surveys by untrained mentors that were able to be matched to the original survey of trained mentors.

This chapter presents the summarized data collected including the biographical profiles of both groups, and the preferred leadership style scores of both groups and the results of the hypothesis tests.

Sample Characteristics

The biographical characteristic of the sample is expressed by gender, age, experience as a police officer, number of recruits trained, and education. Education is subdivided into two groups consisting of university degree status and education, which measured the absence or presence of reported training in: coaching, counselling, or military courses. Gender was matched 100% in the study sample while the other characteristics were matched using ranges.

Table 1 represents the matched frequency distribution of age in the two groups using 5 year increments of which 23 (84.6 %) were matched within the 10 year range.

Table 1

Matched Distribution of Age

	Frequency	Percent
Within 5 years	7	26.9
Within 10 years	15	57.7
Within 15 years	3	11.5
Within 20 years	1	3.9
Total	26	100

Age was considered as a developmental source of matching since previous research found a correlation between age and leadership styles in police officers. Older managers tended to be more transformational in their leadership styles than younger ones (Girodo, 1998).

Age Profile of Sample

Figure 1. Age Distribution.



The mean of the sample was 37 which is almost identical to the mean age of police officers nationally which is 38, with the majority of officers being between 30 and 50 (HRDC, 2001). Age was considered as a developmental source of matching since previous research found a correlation between age and leadership styles in police officers (Girodo, 1998).

Table 2 represents the frequency of matching subjects according to police experience within 3 year increments between the two groups. A 89.5 % match within a 9 year range was obtained.

Table 2

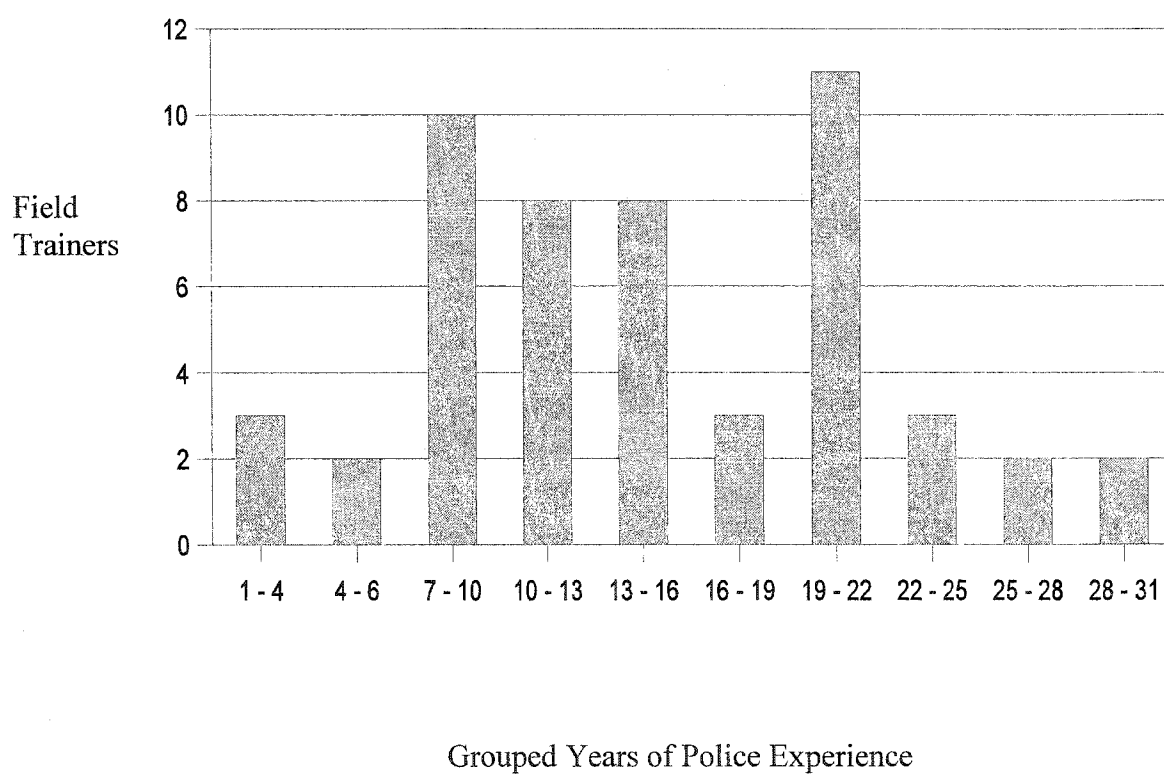
Matched Distribution of Police Experience

	Frequency	Percent
Within 3 years	8	30.8
Within 6 years	8	30.8
Within 9 years	7	27.0
Within 12 years	2	7.6
Within 21 years	1	3.8
Total	26	100

Police experience is considered to be positively correlated to the police officers age since most officers join police forces in their mid-twenties and thirties. The exceptions would predominantly be officers who join later in life (over 35) since recruit educational standards generally prevent most police recruits from entering policing below the age of their early twenties.

Police Experience

Figure 2. Police Experience Distribution of Sample



The mean amount of experience for the group was in the 13-16 year range, with the data being primarily bi modal at 7-10 years and 19-22 years since only one subject separates these two modes

Table 3 represents the matched distribution frequency of police recruits trained in the two groups using 3 person increments of which 22 (84.6 %) were matched within a 9 person range.

Table 3

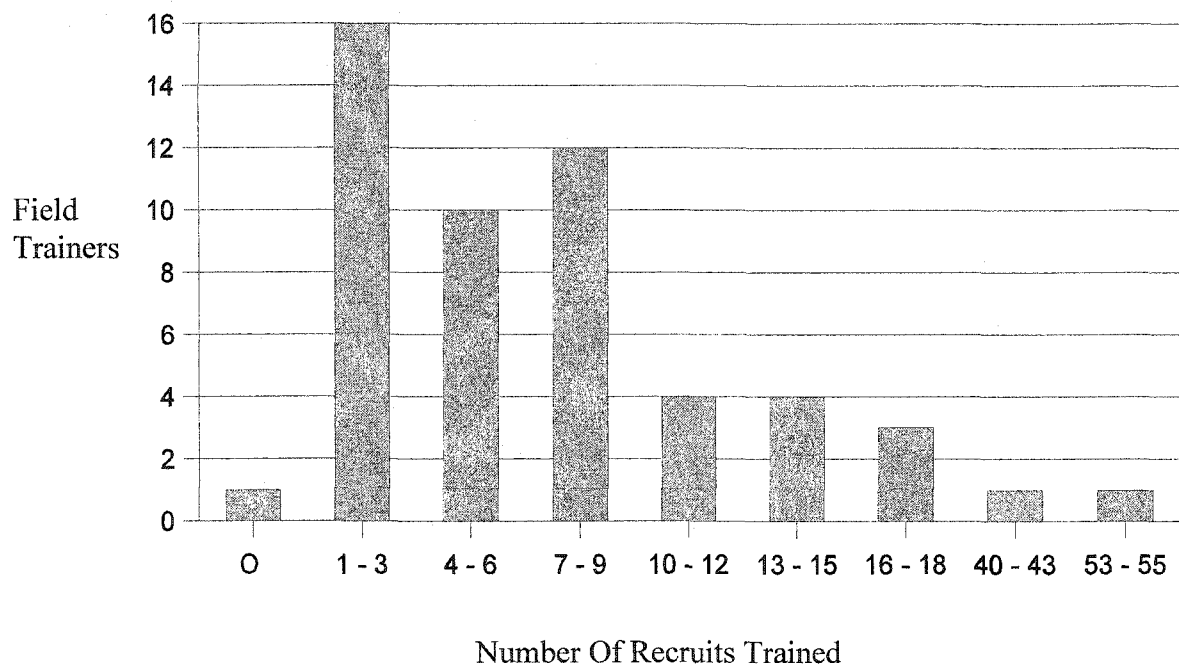
Matched Distribution of Police Recruits Trained

	Frequency	Percent
Within 2 recruits	10	38.5
Within 5 recruits	9	34.6
Within 8 recruits	3	11.5
Within 11 recruits	2	7.7
Within 13 recruits	2	7.7
Total	26	100

The number of recruits trained was considered an important matching criterion because this represented the number of times the trained or untrained field trainer / mentor would be able to best express their preferred leadership style.

Recruits Trained per Field Trainer

Figure 3 Number of Recruits Trained Per Field Trainer, Frequency of Combined Group.



The mean of the sample was the 7-9 range of cadets trained with the mode being 1-3 cadets trained.

Table 4 represents the matched distribution frequency of police field trainers with or without a university degree of which 22 (84.6 %) were matched exactly.

Table 4

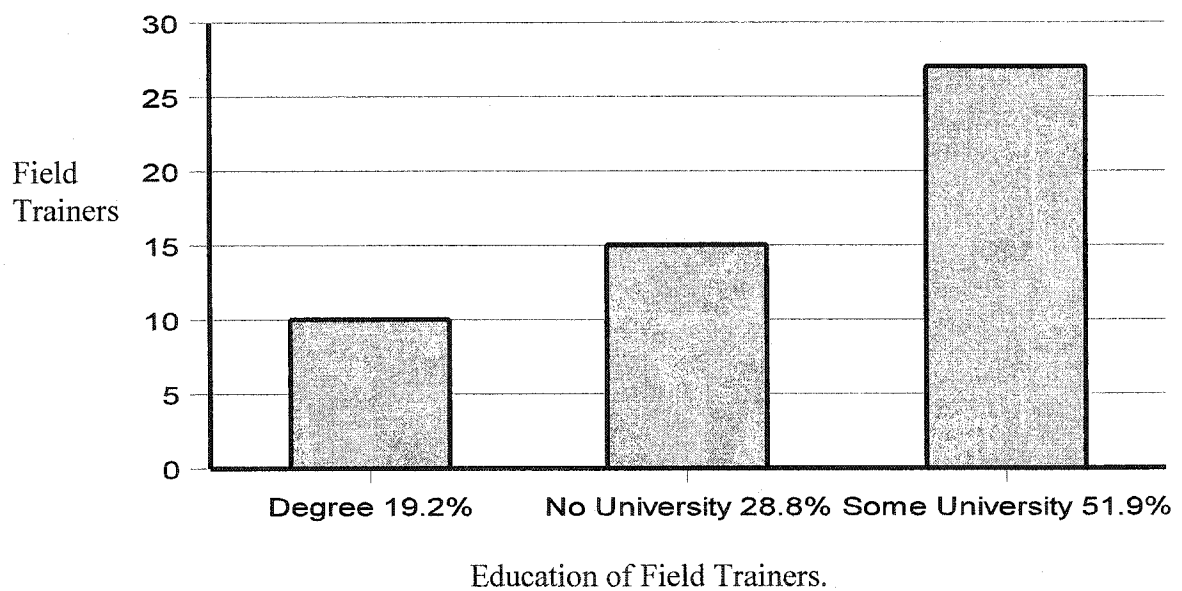
Matched Distribution of University Degree Status

	Frequency	Percent
Matched	22	84.6
Degree matched		
with some university	3	11.5
Degree - No degree	1	3.9
Total	26	100

Since a university degree involves several years of formal education it was felt that this trait should be matched as closely as possible to rule out any effects on preferred leadership style created by post secondary education.

University Education Of Sample

Figure 4. Educational distribution of the sample.



In relation to police officers having a university degree, this sample is slightly higher than the Canadian national average which was 13% and slightly lower in relation to the national average of some post secondary education which was 66% (HRDC, 2001).

Table 5 represents the matched distribution of extra training taken by police field trainers which was divided into three categories: coaching courses, counselling courses and military training. Using the three criteria, 13 subjects matched exactly (50%).

Table 5

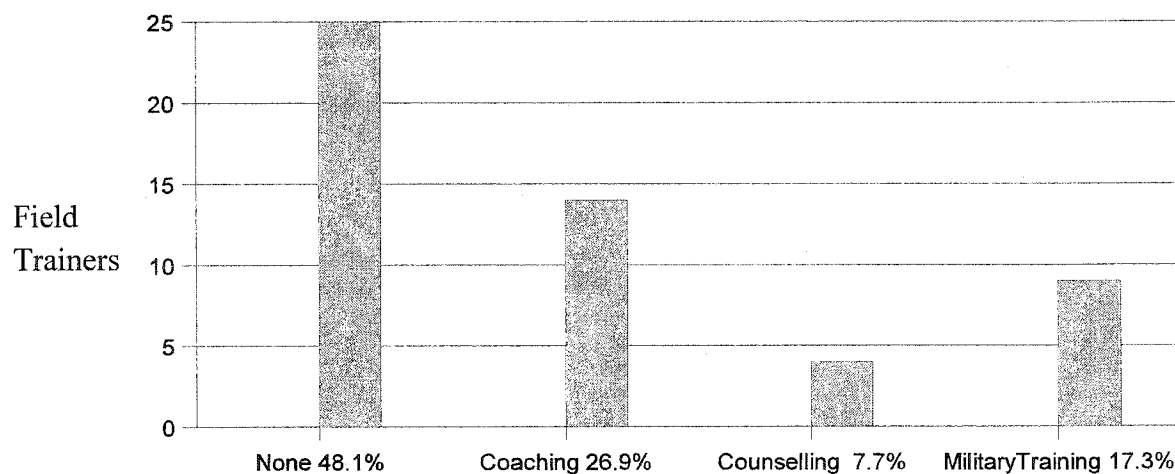
Matched Distribution of Extra Training Received

	Frequency	Percent
Matched	13	50.0
Training mismatched	4	15.4
Training - no training	9	34.6
Total	26	100

Because this type of training was shorter in duration than the university degree aspect of matching, the university degree matching was prioritized over these categories.

Extra Training

Figure 5 Distribution of the extra training of the combined groups.



Percentage of Field Trainers with Extra Training.

The majority of the sample 48.1% had no extra training as defined by the survey.

When possible, subjects with coaching, counselling and military training were matched.

Leadership Styles of Trained and Untrained Police Mentors

Leadership styles were measured using the commercially available Multi factor Leadership Questionnaire, MLQ 5X, which utilizes a series of 45 questions that are answered using a 0 to 4 Likert format scale (Bass & Avolio, 1997). The Likert scale divisions correspond to the self-rated frequency of how often a certain behaviour is used by the respondent. A response of 0 corresponds to the total absence of a behaviour which is described as “not at all” which is a true zero value. Scores of 1, 2 and 3 correspond to consecutively to “Once in a while,” “Sometimes” (the mid point) and “Fairly often” (Bass & Avolio, 1997). A score of 4 corresponds to “Frequently, if not always” which describes the maximum manifestation of any behaviour being rated (Bass & Avolio). The behaviours correspond to one of three leadership styles which are determined by adding up the questions scores using the MLQ 5X survey scoring sheet (see Appendix A) and determining the mean for each of the three leadership style scores. The style with the highest mean is the preferred leadership style of the respondent. The survey also contains three sub scales that measured: extra effort, effectiveness, and satisfaction. The data for these scales was collected but was not used in the hypothesis testing as they do not measure leadership style.

Table 6 represents the results of the survey in relation to the dependent variables of leadership style based on the independent variable of formal leadership training.

Table 6

Mean Scores of Preferred Leadership Styles

	Trained Group	Untrained Group
Transactional Leadership Style Mean:	1.860	2.006
Standard Deviation	.506	.570
Transformational Leadership Style Mean:	2.903	2.830
Standard Deviation	.523	.360
Laissez-faire Leadership Style Mean:	.548	.862
Standard Deviation	.495	.765

These means exhibit a pattern of difference between the two groups of trained and untrained police mentors. The group of formally trained field trainers/mentors scored higher in transformational leadership than the untrained group. This indicates that the trained group favoured the transformational leadership style in the educational process of mentoring police recruits more than the untrained group. The untrained group scored higher in transactional leadership than the trained group which indicates that they favour the transactional leadership style more than the trained group when training police recruits. The untrained group also scored higher in the laissez-faire style of leadership than the trained group. While the transactional and transformational scores measure preferred leadership styles, the laissez-faire score measures the purposeful lack of leadership and as such, the higher the score the more negative the connotation. The laissez-faire scores

indicate that the untrained group favoured not exercising any leadership styles when training police recruits more than the trained group.

Preferred Leadership Style Profile

Figure 6. Leadership style profiles of the trained and untrained groups of police field trainers.

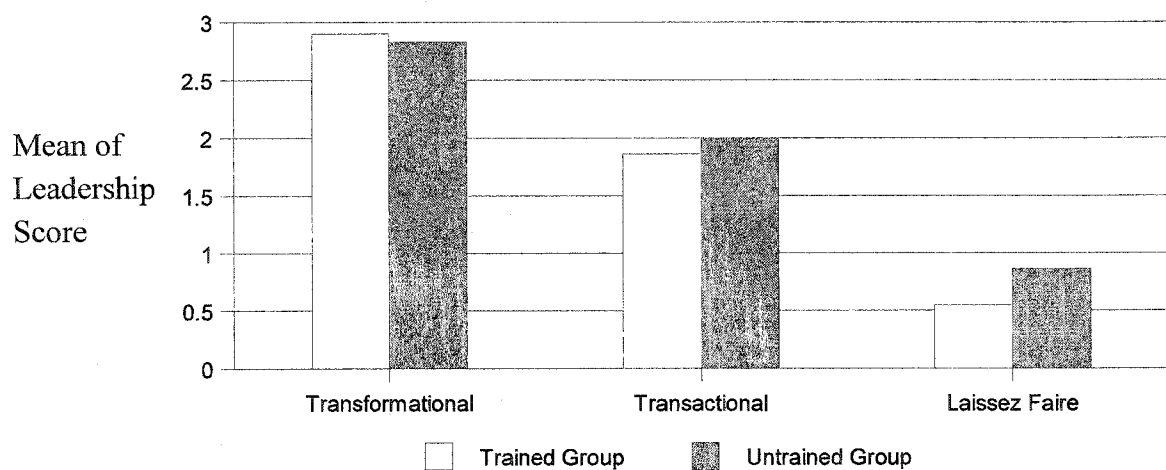


Table 7 represents a matched sample *t* tests conducted to determine if any statistically significant differences existed between the matched groups in regards to their leadership styles. The matched sample *t* tests were run with a 0.05 alpha for a two-tailed test. Under these conditions the critical value for *t* is 2.060 (Wiersma, 2000). There was no statistically significant difference on any of the leadership styles between the trained and untrained groups ($p > .05$)

Table 7

Paired Samples of *t*-test Results

Paired Differences									
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2 - tailed)
					Lower	Upper			
Pair 1	T Laissez faire NT Laissez faire	-.314103	.899169	.176341	-.677285	4.9E-02	-1.781	25	.087
Pair 2	T Transformational NT Transformational	7.3E-02	.594194	.116531	-.167227	.312773	.624	25	.538
Pair 3	T Transactional NT Transactional	-.146270	.806934	.158253	-.472198	.179657	-.924	25	.364

Note: the degrees of freedom (df) in a dependant sample *t*-test are equal to the number of pairs (26) minus 1 (=25).

CHAPTER V

Discussion

Results

The mean scores obtained from the subjects indicated that the transformational leadership style was the most preferred style of leadership in both the trained and untrained police field trainers. The second most preferred leadership style used by both groups was transactional, followed by the least preferred style of laissez-faire. When comparing the magnitude of the differences between the leadership styles of the two groups, the laissez-faire style showed the most difference, followed by the transactional style and finally the transformational showing the least difference. Using biographical data to match the trained and untrained field trainers in a paired sample *t test* there was no statistically significant differences found between the three leadership styles. The greatest difference was found in the laissez-faire leadership style which approached statistical significance.

Discussion

The overall results regarding the profile of preferred leadership styles of both groups of trained and untrained police field trainers is supported by other research done on police officers in the United States and Australia. The finding that the transformational leadership style was the most preferred style used by both groups is supported by research indicating it is the dominant style overall in American police forces (Morreale, 2002; Deluga & Souza, 1991) and generally in public organizations like police forces (Lowe & Graen, 1996). The finding that it is the dominant leadership style specifically for field

trainers is supported by an Australian study of gender related effects on leadership styles (Panopoulos, 1998). While research on police leadership styles using the Multi Factor Leadership theory is very limited, the pattern of leadership style ranking found in this study was also found in Morreales (2002) study of New England police forces. The identical patterns of leadership rankings could indicate some measure of validity in the current study that the selected group of field trainers (n), was representative of a larger population of field trainers (N), but two studies are not enough to draw any conclusions from.

While the differences in preferred leadership style between the trained and untrained groups were not statistically significant, if they are viewed with the exploratory nature of this research, there are arguably practical differences in the findings. In relation to the differences between the two groups, the specific pattern of change supplies a comparison pattern for future research on the effects of police leadership training. While not significant in magnitude at the .05 alpha level, the trained group did have a higher level of the transformational leadership style, which has been researched to be the most beneficial leadership style for educational mentoring (Sosik & Godshalk, 2002) and police job satisfaction (Morreale, 2002). The untrained group had a higher level of transactional leadership which is less favourable in the educational mentoring process and job satisfaction in policing. This “direction” of change is notable because it is in a desirable direction, that may only be statistically lacking due to the small sample size, length of time from training, or biographical matching issues.

A second practical consideration is the difference between the groups in relation to

the leadership style of laissez-faire, which exhibited the largest difference of all three styles. At the .05 alpha level this leadership style *t test* score of 1.781 is the only one which is approaching statistical significance ($t = 2.060$). The results show that the trained group of police mentors had a lower preference for the laissez-faire style of leadership and that the magnitude of the difference between the two groups approached a significant level. If the directions of differences in this study are any indication of considerations for future research, the decrease of preferences for the laissez-faire style of leadership in the trained group is the most significant. As basically a “non leadership” style of mentoring or supervision, laissez-faire has been widely researched and documented for the detrimental effects it has on educational mentoring (Sosik & Godshalk, 2002) and police morale and extra effort (Morreale, 2002). If any of the limitations in this study affected the measurement of the magnitude of differences in leadership styles, there is no indication that one leadership style measurement would be more affected than any other. If this were true, then a possible direction for future leadership training studies in policing would be to examine how leadership and mentoring training possibly has an effect on removing an officer’s previous tendency to avoid leadership involvement when needed (laissez-faire).

Bass, one of two main founders of the Multi Factor Leadership theory, stated the transformational and transactional leadership styles were conceptually separate and independent dimensions appearing simultaneously in the behaviour repertoire of leaders (Bass, as cited in Tajeda, 2001). With this multi dimensional concept of leadership, a higher score in one style does not equate to a lower score in the two other styles. From this standpoint, a higher laissez-faire score equates to a higher tendency of refusing to lead

or supervise in the educational mentoring process when required or needed. The other scores of transformational and transactional style for either group, reflect what style they prefer to use most when they do lead or supervise. As previously mentioned, the trained group favoured the transformational style more and the transactional style less when compared to the untrained group. Statistical significance aside, this pattern bears further research in this area of training the police recruit mentor, who by their well-researched influence on police protégées, can have such a significant effect on our law enforcement in modern society. Due to the practical differences, this study sets an exploratory starting point for future research into police leadership training at the APA and in other agencies, that did not exist prior to this study.

Limitations

By its very nature this study was exploratory in nature because of the qualities of the sample population, time spans of influence used, and the fact that no other research addressing the effects of training on police field trainers could be located for comparison. The lack of statistical significance found in the *t test* may be due to the independent variable of police leadership training not having an influence on the dependant variables of leadership style or it may be due to the limitations inherent in this study. One limitation present was the possible lack of statistical power from the small sample size ($n = 26$). Due to small class sizes of police leadership training held once or twice a year, this study involved a total population of 35 of which a 74% survey return rate (26) was obtained. The recommended quantitative research return rate for a population of 35 subjects, which is 91% ($n = 32$), was not obtained in this study (Krejecie & Morgan, 1970). It is possible

that the 17% who did not respond could have caused the laissez faire score to become statistically significant. One could speculate that since the laissez faire leadership style is one of non involvement, that possibly the type of field trainer that would not respond to a leadership survey could be demonstrating traits of that leadership style.

The process of having to examine the influence of training on field trainers who received it over varying times spanning 2 years is directly related to the small class sizes of the leadership courses held once or twice annually. In order to get an original sample size of 35 subjects, two years of training courses had to be considered. The 2 year limit was selected as the maximum based on the only study which could be located using the multi factor leadership theory to study the lasting effects of leadership training. In a study of community leaders, Avolio and Bass (1998) , found that significant changes in leadership profiles could persist after 2 years. They discovered that the extraneous variable of, pre training motivation to change, was directly correlated to the maintenance of significant levels of leadership style change 2 years after training was received (Bass & Avolio). The ex post facto design of this experiment did not allow for this type of pre training examination of subjects, so there was no way to determine the effects of the time span between the received leadership training and the measurement of preferred leadership styles.

Future Research

Exploratory research of this type often does not supply definitive results in the final analysis, but instead brings to light possible future directions and issues for further studies. Reexamination of the raw data in this study, by applications beyond the original scope of

this research, could be a starting point to future studies of this nature. A correlational analysis of the various biographical variables used against the three leadership style ratings of the entire sample group could determine which, if any, of the variables affect leadership styles. Strong correlations would allow a more streamlined approach and possibly better matching of traits than was accomplished by this research design. Any biographical variables that were found to not significantly affect police leadership styles could be removed from the matching process resulting in a more focussed matching process.

In this research, the two specific biographical areas of education and gender need to be considered when designing future research. The area of education needs to be examined, as this sample had a higher overall education in relation to university degrees (19.2%) than the average police population of Canada (13%) (HRDC, 2001). This may be due to a selection process bias of agencies to tend to send more educated officers on leadership courses and also select them as field trainers even if they have not had a leadership course. If a university degree was found to be a biographical trait that affected leadership styles, than this could have repercussions regarding the future selection and training of police mentors. In regards to gender, this study matched gender 100% as a biographical match, but the total sample was under representative in regards to Canada's police gender profile. Due to the limited number of females sent on police leadership training during the 2 years studied, this survey had a 3% female content compared to the Canadian police population of 12.9% women (HRDC, 2001). Since the gender of police field trainers was statistically linked to leadership style preferences using the MLQ 5X in an Australian study, it is reasonable to consider that future Canadian research should try

and match the national average in gender division of any future samples (Panpopoulos, 1998). A second option regarding gender, would be to study only one gender at a time to see the effects of training on each gender since female field trainers in Australia were found to use more transactional leadership methods than their male counterparts (Panpopoulos).

A second direction for future studies is to use the research paradigms of other studies that measured the effects of leadership training in other professions. The most practical design would be the pre-test / post-test design used on nurses by Corrigan, Lickey, Campion, and Rashid (2000) which used the MLQ 5X to measure leadership style preferences before and after leadership training. This study could be combined with a longitudinal repeated measure design in which the pre-test / post-test group was tested at regular intervals to see if any changes in leadership style prevailed over time. In designing this type of study we would have to consider a pre course survey to ascertain if the course attendees wanted to change their leadership styles as Avolio and Bass (1998) found that desire to change a leadership style or component of a style was directly correlated to the lasting effects of any changes acquired by training. As with any longitudinal study a large starting group is favourable to allow for subjects who for many reasons cannot be reevaluated after their initial training. To this end, a study conducted at one of the larger police training agencies in Canada would be desirable.

Conclusion

The overall results of this study indicates that the leadership training at the APA had an effect on the field trainers attending the course, and that the direction of change

was consistent with other research showing these changes to be beneficial to improving the educational mentoring process (Morreale, 2002, Sosik & Godshalk, 2002). The finding of the largest decrease in preferred leadership style in the trained group being the laissez faire style, indicates that the APA leadership course may engage the field trainer to be more involved as a mentor, and more apt to use the other two leadership styles in the mentoring process of OJT. Since both the transactional and transformational leadership styles are necessary in a police culture (Scott, 1996), the removal of the negative leadership style of laissez faire from the mentoring repertoire of the field trainer is an important step towards improving the quality of the OJT process and an important direction for future research into police leadership training.

This study sought to measure the possible effects of leadership training on mentors in a profession where no published empirical research on training effects could be located. As such, the purpose of the study was to add to the current limited body of knowledge regarding police education and to supply some direction for future research into improving the practices of training future police field trainers as mentors. As important as the mentor/protégée relationship is to the quality of the educational experience, this relationship hinges, to a great degree, on the proper selection and training of the mentors. In as much as police officers have the potential to serve the Canadian society admirably, the quality of their education, enculturation of values, and ethics rests to a great deal in the hands of their mentors, the police field trainers (Bahn, 1976, Ellis, 1991). The training and selection of these mentors of police recruits is an area in which a void of research currently exists in the police educational system. While our police recruits at the APA undergo

batteries of selection tests, screening, and extensive training, our research has shown that the most influential part of their training is their mentored on the job training period. The selection and quality training of police mentors for our recruits is an area of police education that is long overdue for empirical research, and one that will have lasting repercussions as the role of the police officer becomes more crucial in our post 911 society.

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Appendix A

MULTI FACTOR LEADERSHIP INSTRUMENT

Multi factor Leadership Questionnaire Instructions

The following is a survey questionnaire developed by the Center for Leadership Studies in Binghamton University , Binghamton, New York, that was found to be reliable in indicating what style of leadership people prefer to use . There are NO RIGHT OR WRONG ANSWERS to the questions so please answer them honestly in relation to how often each statement fits the way you exercise your leadership style with a new recruit or an employee on probation.

All statements deal specifically with leadership issues, not your work habits, for example question three (3). "*I fail to interfere until problems become serious*" is asking how often you don't interfere with other peoples actions (police cadet's etc..) until you consider a problem is serious. When reading the statements always remember they are referring to your actions in relation to leading other people.

This study is part of my Masters of Education Thesis designed to evaluate if the leadership style of police officers is different depending on whether they taken the APASupervision Level One course. **All individual results are confidential.** The final results of the study will be submitted to the University of Prince Edward Island in the form of a research thesis. Information from individual police forces and provinces will not be singled out for analysis, publication or release in any way. All information will be complied into two groups : officers who have takenSupervision Level One and those who

have not, for statistical analysis to determine if there is any significant differences between them.

If you have any questions regarding any aspect of this survey or study please contact me by way of one of the following:

Inspector Reg Berringer

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THIS SURVEY IS CONFIDENTIAL .

THIS SURVEY IS CONFIDENTIAL .

BIOGRAPHICAL INFORMATION.

This part of the survey is critical so that the two groups of officers can be matched together with each other. This study uses a "matched samples" research design which means that an attempt will be made to show that the two groups of police officers being studied : those who had APA leadership training and those who have not have not had APA leadership training, have similar traits such as age, gender and experience. The closer the two groups are in similarity the more potentially valid the research is in studying the effects, or lack of effects, of leadership training. Please fill out the following information so that comparison matching can be done.

Check the appropriate box.

Your Age: ☐ 19 to 24 ☐ over 24 up to age 29 ☐ over 29 up to age 34

☐ over 34 up to age 39 ☐ over 39 up to age 44 ☐ over 44 up to age 49

☐ over 49 up to age 53 ☐ over 53 up to age 58 ☐ over 58 up to age 63.

How many Police Cadets on OJT or new employees on probation have you been a field trainer for, Including , part time or while their regular field trainer is not available: ☐ None ☐ 1 - 3 ☐ 4 - 6 ☐ 7 - 9 ☐ 10 - 12 ☐ 13-15 ☐ 16-18 ☐ 19 - 21

☐ 22 - 24 ☐ 25 - 27 ☐ 28 - 30 ☐ 31 - 33 ☐ 34 - 36 ☐ 37 - 39 ☐ 40 - 43

☐ OVER 44.

How many Police Cadets on OJT or new employees on probation have you worked alone with for at least 3 shifts while their regular field trainer was not available: ☐

None ☐ 1 - 3 ☐ 4 - 6 ☐ 7 - 9 ☐ 10 - 12 ☐ 13-15 ☐ 16-18 ☐ 19 - 21 ☐ 22 - 24
☐ 25 - 27 ☐ 28 - 30 ☐ 31 - 33 ☐ 34 - 36 ☐ 37 - 39 ☐ 40 - 43 ☐ OVER 44.

Including all your police service with any police agency how many years of police experience do you have: ☐ under 1 year ☐ 1 to 4 ☐ over 4 up to 7 ☐ over 7 up to 10 ☐ over 10 up to 13 ☐ over 13 up to 16 ☐ over 16 up to 19 ☐ over 19 up to 22 ☐ over 22 up to 25 ☐ over 22 up to 28 ☐ over 28 up to 31 ☐ over 31 up to 34 ☐ over 34 up to 37 ☐ over 37 up to 40 ☐ over 40 up to 43.

Education (check all appropriate boxes) : ☐ High school ☐ Community college
☐ APA Police Science Course ☐ Trade education (plumber, mechanic, carpenter etc...)
☐ University Courses no degree ☐ University Degree ☐ Graduate Degree (masters level) ☐ Military training ☐ Military leadership training (JNCO training etc...) ☐ Public speaking courses ☐ Business management training ☐ Sports coaching courses. ☐
 Counselling courses.

Multifactor Leadership Questionnaire.

(All Responses Confidential)

This questionnaire is to describe your leadership style as you perceive it. *All questions deal with your leadership of another person, NOT your work habits.* Please answer all items on the answer sheet by circling the number that is the most appropriate for you in relation to how often you would do it. In the following statements on the survey the word "others" can mean your fellow officers, police cadets on OJT, newly hired recruits on probation, supervisors and/or all of these individuals. Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits you, using the following scale:

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

1. I provide others with assistance in exchange for their efforts 0 1 2 3 4
2. I re-examine critical assumptions to question whether they are appropriate 0 1 2 3 4
3. I fail to interfere until problems become serious 0 1 2 3 4
4. I focus attention on irregularities, mistakes, exceptions, and deviations
from standards 0 1 2 3 4
5. I avoid getting involved when important issues arise 0 1 2 3 4
6. I talk about my most important values and beliefs 0 1 2 3 4
7. I am absent when needed 0 1 2 3 4
8. I seek differing perspectives when solving problems 0 1 2 3 4

- | | | | | | | |
|-----|--|---|---|---|---|---|
| 9. | I talk optimistically about the future | 0 | 1 | 2 | 3 | 4 |
| 10. | I instill pride in others for being associated with me | 0 | 1 | 2 | 3 | 4 |
| 11. | I discuss in specific terms who is responsible for achieving performance targets ... | 0 | 1 | 2 | 3 | 4 |
| 12. | I wait for things to go wrong before taking action | 0 | 1 | 2 | 3 | 4 |
| 13. | I talk enthusiastically about what needs to be accomplished | 0 | 1 | 2 | 3 | 4 |
| 14. | I specify the importance of having a strong sense of purpose | 0 | 1 | 2 | 3 | 4 |
| 15. | I spend time teaching and coaching | 0 | 1 | 2 | 3 | 4 |
| 16. | I make clear what one can expect to receive when performance goals are achieved . | 0 | 1 | 2 | 3 | 4 |
| 17. | I show that I am a firm believer in "If it ain't broke, don't fix it" | 0 | 1 | 2 | 3 | 4 |
| 18. | I go beyond self-interest for the good of the group | 0 | 1 | 2 | 3 | 4 |
| 19. | I treat others as individuals rather than just as a member of a group | 0 | 1 | 2 | 3 | 4 |
| 20. | I demonstrate that problems must become chronic before I take action | 0 | 1 | 2 | 3 | 4 |
| 21. | I act in ways that build others' respect for me | 0 | 1 | 2 | 3 | 4 |
| 22. | I concentrate my full attention on dealing with mistakes, complaints, and failures .. | 0 | 1 | 2 | 3 | 4 |
| 23. | I consider the moral and ethical consequences of decisions | 0 | 1 | 2 | 3 | 4 |
| 24. | I keep track of all my mistakes | 0 | 1 | 2 | 3 | 4 |
| 25. | I display a sense of power and confidence | 0 | 1 | 2 | 3 | 4 |
| 26. | I articulate a compelling vision of the future | 0 | 1 | 2 | 3 | 4 |
| 27. | I direct my attention toward failures to meet standards | 0 | 1 | 2 | 3 | 4 |
| 28. | I avoid making decisions | 0 | 1 | 2 | 3 | 4 |
| 29. | I consider an individual as having different needs, abilities and aspirations
from others | 0 | 1 | 2 | 3 | 4 |
| 30. | I get others to look at problems from many different angles | 0 | 1 | 2 | 3 | 4 |
| 31. | I help others to develop their strengths | 0 | 1 | 2 | 3 | 4 |
| 32. | I suggest new ways of looking at how to complete assignments | 0 | 1 | 2 | 3 | 4 |
| 33. | I delay responding to urgent questions | 0 | 1 | 2 | 3 | 4 |
| 34. | I emphasize the importance of having a collective sense of mission | 0 | 1 | 2 | 3 | 4 |
| 35. | I express satisfaction when others meet expectations | 0 | 1 | 2 | 3 | 4 |
| 36. | I express confidence that goals will be achieved | 0 | 1 | 2 | 3 | 4 |
| 37. | I am effective in meeting others' job-related needs | 0 | 1 | 2 | 3 | 4 |
| 38. | I use methods of leadership that are satisfying | 0 | 1 | 2 | 3 | 4 |

39.	I get others to do more than they expected to do	0	1	2	3	4
40.	I am effective in representing others to higher authority	0	1	2	3	4
41.	I work with others in a satisfactory way	0	1	2	3	4
42.	I heighten others' desire to succeed	0	1	2	3	4
43.	I am effective in meeting organizational requirements	0	1	2	3	4
44.	I increase others' willingness to try harder	0	1	2	3	4
45.	I lead a group that is effective	0	1	2	3	4

(All Responses Confidential)

Appendix B
REQUEST LETTER SENT TO POLICE CHIEFS

September 10, 2002

Chief xxx
xxx Police Department.

Dear Chief Smith.

RE: Masters of Education research thesis on police leadership styles.

I am in the process of completing my Masters of Education degree from the University of Prince Edward Island (UPEI). This involves a research study which compares the preferred leadership styles of police officers who have completed an APA field trainers course to officers who have not.

I am seeking your permission to send surveys directly to police constables on your force who fit this criteria. Attached is a copy of all the documentation each officer will receive. All expenses and work required for the distribution, information and collection of the surveys will be my responsibility.

I have taken a leave of absence from the Atlantic Police Academy and I can be reached at home if you have any questions regarding this study or the thesis process.

Thank you for your consideration in this matter.

Sincerely,

Appendix C

LETTER TO SURVEY RECIPIENTS

Date.

Dear (name of police officer).

A research study is being conducted in the four maritime provinces by Reg Berringer in partial fulfilment for a Master of education degree in education from the University of Prince Edward Island. This research is examining the effects of the Atlantic Police Academy Supervision Level One course, field trainers course and Coach officer trainers course had on the officers who have taken one of these courses.

Officers who have taken one of these courses are invited to anonymously complete a survey that measures which leadership style they prefer to use. **Participation in this study is completely voluntary.** The survey is a measuring device called the MLQ 5X that has been used in business, the military and in police forces in the US, Australia and New Zealand to determine preferred leadership styles. The anonymous results from the supervision course graduates will be compared with a second set of surveys given to police officers of similar age and experience who have not had a supervision course. The purpose of the comparison is to determine if the two groups prefer different leadership styles.

If you chose to participate please read all the enclosed material before you sign the attached consent form. The consent form is to be mailed back in one of the postage paid envelopes while the completed survey is mailed back in a separate envelope. No one, including the researcher will not know the identity of anyone completing a survey since the consent form is not mailed with the survey.

All results are confidential and will not be reported on an individual basis but as differences or similarities between groups. Consent forms and all surveys are destroyed once the research is completed. Those who partake in the research will be sent an outline of the completed research findings to review and you will be invited to supply comments if

you wish to do so. Copies of the conclusions and discussions contained in this research will be available to all participants who request a copy.

The biographical data sheet will be used to match up surveys of officers who have taken the Supervision Level One course with officers with similar characteristics who have not. The complete survey takes about 15 minutes to complete.

Remember to keep in mind when you complete the survey that all the statements are in relation to working with an APA recruit on OJT or a new employee still on probation.

If you have any questions please feel free to contact me at

Thank you for your support and cooperation.

Sincerely

Reg Berringer

Appendix D

CONSENT FORM

Consent Form

I _____, understand that I have been invited to partake in the study titled *"The effect of formal leadership training on the leadership styles of police field trainers."* I understand that participation in this study is completely voluntary. I understand that all I have to do is to complete the enclosed survey, with the biographical data, and mail it separate from this consent form. I understand that my participation in this survey is strictly confidential and that not even the researcher will know which officer filled out any of the surveys.

I understand that this consent form is a University of Prince Edward Island requirement for research on human subjects and that it will be kept in a locked file cabinet until after the research is completed and then it, and the surveys will be destroyed. I understand that my participation or lack of participation in this research is strictly voluntary and that if I do not want to answer specific questions on the survey I may leave them blank. My answers will be used only by Reg Berringer who will summarize them into group data and analyse them using the statistical software package (SPSS).

I understand that I can keep a copy of this signed and dated consent form. I understand that I may contact the University of Prince Edward Island Research Ethics Board at _____ si.ca, if I have any concerns about the ethical conduct of this survey.

If I have any questions about this survey or this research I may contact Reg

I have read and understand the contents of this consent form and I agree to participate in this study.

Signed _____

Date _____