DOES THE DELIVERY MODEL OF A FIREARMS TRAINING PROGRAM AFFECT QUALIFICATION SCORING AND SHOOTING ACCURACY?

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CHAPTER ONE:

STUDY BACKGROUND

The Problem

Does the delivery model of a firearms training program affect qualification scoring and shooting proficiency?

In today's fast paced world, police executives and managers in departments of all sizes face a bewildering array of departmental and community issues requiring prompt (if not urgent) attention, the utmost in flexibility, and the commitment of resources (Morrison and Shave 2001). These issues are not unique to North American police departments or law enforcement agencies.

In 1999, Her Majesty's Inspectorate of Constabulary section of the Home Office Ministry reported the following trends in *Managing Learning: An HMIC Thematic Inspection Report on Police Training:*

> As we approach the Millennium policing is becoming more complex. Established practices are being subject to critical analysis; new technology and equipment is being introduced; the volume of new legislation is growing and operational performance is subject to constant scrutiny. These changes are against a background of rising demand for services, tight monetary policies and the high expectations of a better-informed public (p.5).

As a result, it could be reasoned that in an era of scarce resources, the duplication of effort and the adoption of flawed strategies, tactics or training methods is wasteful and is potentially harmful to officers and the safety of those for whom they are responsible. Therefore, the objective identification of strategies, tactics and training methods that can be empirically demonstrated to be effective for their intended purposes would be useful to law enforcement administrators (Kaminski and Martin, 2000). Training experiences and qualification processes

should enable officers to perform competently when they need to protect themselves and the public during dangerous encounters (Morrison and Shave 2001).

British Columbia provincial guidelines and certification requirements for firearms proficiency include qualification standards for all municipal police officers, first as recruits at the Police Academy at the Justice Institute of BC, and then periodically throughout their employment with their home department. However, annual firearms training and qualifications vary greatly across the country and there are different firearms requirements peculiar to the specific assignments in policing including, but not limited to traffic officers, undercover operators and plainclothes investigators (Mann, 2000).

Although many police officers chose not to discharge their firearm under circumstances where they justifiably could do so (Fyfe, 1982; Scharf and Binder, 1983) studies and statistics from the United States have shown that several hundred persons are shot and killed each year and likely more than a thousand are wounded (Geller and Scott, 1992). Despite the rare use of firearms by police, (Morrison and Shave, 2001; Helsen and Starkes, 1999), it is this form of deadly force that is so widely recognized, studied and debated.

Scholars concerned with the legal, policy and social aspects of the police use of deadly force began in the 1970's to offer some insights into police performance in armed situations. Their work provides a limited picture in a few major urban areas in the United States, such as Miami-Metro Dade, New York City and Chicago (Alpert, 1987 as cited in Morrison and Shave, 2001; Fyfe, 1978; Geller and Karales, 1981).

For example, the study conducted by Alpert and Dunham (1995) found for the Metro-Dade Police Department that 68 percent of shots fired by officers did not hit their intended target. Another study published by McGee (1981, as cited in Morrison and Vila 1998), who was then the chief firearms instructor for the New York City Police Department, was unable to find any clear connection between range scores and bullet hit rates following his examination of field shootings in the 1970s.

Though technical performance was not the focus of any of these studies, researchers nonetheless have learned about some aspects of combat handgun shooting from their study of the police use of force. For example, in roughly only half of police shootings, at least one police bullet struck one opponent, few opponents actually were hit, and combat marksmanship was on the order of one hit for every seven shots (Morrison and Shave, 2001).

When police do resort to the use of their service weapon in the application of deadly force, research suggests that they are quite limited in their ability to shoot accurately and that their accuracy levels are more similar to those of their opponents than one might first surmise. This is despite the fact that the police officer has extensive training in marksmanship and gun handling while their opponents may have neither. (Morrison and Vila, 1998).

In a British Columbia incident that occurred in December of 2001, a New Westminster police officer with less than two years service engaged a potential robbery suspect in a gun battle where

multiple gunshots were exchanged. Although none of the suspect's bullets hit their intended target, neither did any of the rounds fired by the police officer (New Westminster Police Files, 2001).

Low field shooting accuracy by police in deadly force situations has been reported in several studies (Fyfe, 1978; Geller and Karales, 1981; Geller and Scott, 1992; Scharf and Binder, 1983). Regardless of the reasons reported for this level of accuracy in these confrontations, it does appear to be surprisingly low given the initial training for recruits and the continued training provided to serving police officers (Morrison and Vila, 1998).

Doerner (1991) suggests one of the reasons for any increase in non-lethal shots fired by police may simply be a reflection on superior life-saving and medical attention. If non-lethal bullet strikes are not counted in assessing police accuracy when applying deadly force then caution should be used in the interpretation of any decrease in police accuracy. His study demonstrated that while officers readily upholster their service weapon they are reluctant to use deadly force and delayed firing until all alternatives had been exhausted. This behavior is consistent with the assessment of officers who "died" during simulation exercises.

Well meaning firearms instructors have routinely involved the mutual exchange of non-validated concepts, techniques and methods in the belief that the incorporation of different material would enhance officer safety. Expert and personal opinions, intuition and the

characteristics of the most recent successful or disastrous shooting incident are highly influential in the development of training material and qualification courses (Morrison and Vila, 1998).

In the April edition of the *Blue Line Magazine*, a publication with the tag line "Canada's National Law Enforcement Magazine", a use of force instructor at the Ontario Police College wrote an article to support the position of Canadian police needing patrol carbines in their vehicles. In his opening two paragraphs the author states:

> Requiring or even training officers to fire at distances beyond 15 meters with a handgun is tactically unsound; that weapon is intended for sudden, unexpected threats at close proximities.
>
> The probability of missing the intended target at greater distances, especially in highly dynamic encounters involving movement, low light and survival stress responses is very high and may become a serious liability issue. At these distances, it is far more prudent to teach officers to disengage, select another option or even try to get nearer the threat (Weiler, 2003, p. 14).

These statements strongly contradict the established training and qualification standards used in various police training facilities across Canada (Justice Institute of British Columbia, 2000; RCMP Depot Division, 1996). Both contain training at the 25-meter stage and require some shots taken at this range during a qualification round. When the author of the article was contacted in a phone interview and asked upon what research he was basing the statements in the article, he stated that he didn't have any solid research but it was his personal opinion in the piece, he believed those statements to be true and accurate and that they reflected his personal beliefs as to what should happen.

The main goal of the firearms training at the Police Academy at the Justice Institute of British Columbia is to bring the recruit to the level of competence necessary to achieve provincial certification as a qualified municipal constable in the province of British Columbia. However, high failure rates have plagued the firearms portion of the training resulting in failure rates of 50-55 percent in some classes on their initial qualification round (Police Academy statistics, 2001 and 2002).

The present recruit instructional staff of the firearms component of the Police Officers Basic Training Program have suggested that the current method of delivery for the initial firearms training segment in Block I leads to a low proficiency score and a high failure rate (personal communication, January, 2002). There has been little research done on firearm training delivery methods and for the most part training agencies and departments rely on past practices and the convenient use of available facilities.

The firearm qualification standard and the validation of this standard will not be the focus of this research paper, although it may be discussed at various points throughout the document. The focus of this report will be in assessing the delivery of the current training program in an attempt to develop a delivery model that allows recruits to attain a higher scoring proficiency and reduce the failure rate in the Block I firearms portion of the Police Officers Basic Training Program.

Failure to provide a firearms training program that delivers the skills necessary for police officers to use lethal force could ultimately pose a very serious liability issue for police training

centers across Canada. Encounters involving deadly force can result in a myriad of results. These may include "some combination of death; serious physical and psychological injuries to the parties involved; criminal complaints; state and federal lawsuits; departmental disciplinary action; loss of professional and personal credibility; negative media image and public perceptions and downward spiraling police community relations" (Morrison and Shave, 2002, p.18).

Courts in the United States have even indicated that the liability issue in lethal force encounters is based on a determination of the adequacy of the training program in relation to the tasks the particular officer must perform. In the City of Canton vs. Harris, the U.S. Supreme Court found that in firearms use and training, these tasks relate to proficiency and judgment (Hall, 1993). In another case, in which a police officer shot and killed an innocent bystander during a foot chase of a possible kidnap suspect, the City of Margate was held liable for providing firearms training that was "grossly inadequate" (Popow vs. the City of Margate, 1979).

This project will determine whether the delivery model of a firearms training program affects the qualification scoring and shooting accuracy. It is hypothesized that if the training is delivered in a more periodic, less clustered method, there will be less muscle fatigue which will allow for a higher proficiency reflected in the qualification scores recorded and fewer failures. It is proposed that the new delivery model will allow for the current material to be delivered in one-day segments followed by several days rest.

The Organization

The Justice Institute of British Columbia was established in 1978. It is a recognized post secondary education institute that specializes in areas of justice, public safety and human services. It currently is the home of nine academies and divisions that include the:

- Paramedic Academy;
- Fire and Safety Division;
- Police Academy and Contract Law Enforcement Programs;
- Emergency Management Division;
- Courts Academy;
- Center for Conflict Resolution;
- Pacific Traffic Education Center;
- Corrections and Community Justice Division; and
- Center for Leadership and Community Learning.

In an attempt to create province wide standards for policing in British Columbia, the government established in 1975 the British Columbia Police Academy that would be responsible for the training and certification of all municipal police constables for the province of British Columbia. In 1978, the British Columbia Police Academy became a division of the Justice Institute of British Columbia. *The British Columbia Police Act* mandates that all municipal officers in British Columbia attend the Justice Institute to receive their basic training before they can become qualified municipal constables. The Police Officer's Basic Training Program

consists of 35 weeks of training for recruit constables broken into three individual segments or blocks.

The first segment of the training program (Block I) consists of 11 weeks of training covering the basic aspects of policing. These topics include, among others, the fundamental concepts of legal studies, traffic studies, arrest and control tactics, fitness levels, driving skills, basic patrol investigations, communication skills and firearms training. Block II is a 13-week to 17-week field practicum where the recruit works under the direct supervision of a field-training officer at their home department. The recruit then returns to the Police Academy for the final 11-week segment (Block III) where the skills and knowledge learned during the Block II experience are built upon and enhanced.

The current framework surrounding the delivery of the firearms training program in the Block I portion of recruit training has not been changed since its inception into the program in 1978. Although the course content has been revised and refined several times, the delivery of the program has remained the same for the past 24 years. The program has always been delivered over the space of six alternating days of lectures, instruction and practical application. Each day of firearms training is followed by one day of driver training. The end result being the qualification of the recruit to the necessary provincially mandated standard in firearms.

It would appear that the qualification scores generated by the firearms training program of any department would, if taken at face value, attest to competence (Morrison and Shave, 2001).

The same could be said for the training program at the Police Academy at the Justice Institute of British Columbia. Firearms qualification is primarily a mechanism by which baseline marksmanship competency is measured (Aveni, 2002). Executives and program mangers should consider many other issues and "look beyond traditional marksmanship qualification scores as their measure of officer preparedness" (Morrison and Shave, 2002, p.17).

All recruits must pass all components of the Police Officers Basic Training Program to the provincial standard set by the *British Columbia Police Act* before they can become qualified municipal police constables. However, it has been observed that there are high rates of failure on the initial qualification of the firearms portion of the training program. Once a recruit fails, he or she must go through remedial training to bring them up to the necessary provincial standard before being granted status as a qualified municipal police officer. This remedial training places an enormous burden on finite resources such as staffing, facilities, time, and consumables tied to training and qualification activities (Morrison and Shave, 2001).

It is therefore hoped that by addressing the method of delivery of the recruit firearm training, the recruit's proficiency will increase, and higher accuracy in real life deadly force situations will be facilitated. It is also hoped that there will be a reduction in the number of failures requiring remedial training and thus freeing up valuable resources.

CHAPTER TWO:

INFORMATION REVIEW

Review of Organizational Documents

The Police Academy at the Justice Institute of British Columbia

The Police Academy at the Justice Institute of British Columbia falls under the direct supervision of the Director of the Police Academy and is funded by the Police Services Division of the Ministry of Public Safety and Solicitor General. Mr. Steve Watt currently holds the position as Director of the Police Academy and Mr. Kevin Begg is the Director of Police Services.

Section 6 of the Training Rules and Regulations of *British Columbia Police Act* refers to the Director of the Police Academy in the following way:

> 6. (1) The director shall, in consultation with the training officers, advisory committee and commission, determine the duration of the period of training in the peace officers basic training program and peace officers general training program, and educational or other prerequisites to enrolment in any other courses or programs offered at the academy.
> (2) The level of competence in the student must acquire in skill-oriented courses and the determined learning outcome of all training at the academy shall reflect the relevant standards established by the commission.

(*British Columbia Police Act,* 1998, p.6).

The Training Officers Advisory Committee (TOAC) is currently defined in the Training Regulations to the *British Columbia Police Act* as "a committee consisting of all training officers to advise on the training programs conducted by the academy" (*British Columbia Police Act,*

1998, p. 4). The TOAC meets quarterly to fulfill the following requirements of Section 9 of the Training Rules and Regulations of the *British Columbia Police Act:*

Training officers advisory committee

9. (1) The chief constable of each municipal force shall appoint a training officer.
   (2) The training officers' advisory committee shall be called and presided over by the director [police academy] or his designate and shall meet not less than 4 times in each calendar year.
   (3) The resolves of the training officers' advisory committee must be considered advice to the commission and the director and receive serious consideration in matters relevant to curriculum and policy and the academy.

(*British Columbia Police Act,* 1998, p.10).

In March of 1997, the TOAC for Municipal Police Departments recognized the need to review the current Provincial Standard for Firearms Proficiency Test. This review was tasked to the firearms section of the Police Academy at the Justice Institute of BC.

In July of 1997, questionnaires were developed and sent with a copy of the current "Qualification Course of Fire" to one third of the operational police members, 12 training officers and 12 firearm instructors (for distribution to all firearm instructors). The number of survey participants who responded was as follows: operational police officers (47%); training officers (58%); firearm instructors (75%) (Justice Institute of British Columbia study, 2000). The study did not comment on the program delivery model, but focused on the components of what the new BC Firearms Proficiency Standard should be.

The response to the questionnaires indicated that a majority of those asked did not feel the present qualification firearm course of fire was adequate. The responses received to the other questions suggested that a more appropriate test would:

- Reduce the number of shots per segment;
- Reflect the statistical proof that most gunfights occur at close range and therefore the majority of shots fired during the test should be at theses ranges;
- Incorporate the engaging of more than one target;
- Require the total number of rounds to be proportionate to the total number of rounds carried on duty; and
- Be broken into two parts; a handling skills or standards test and a marksmanship test.

After the survey was completed, a workshop that included representatives from municipal police departments and the Police Academy was held on March 2 and 3, 1998. The participants' role was to act as content experts, provide alliterative viewpoints and make recommendations. This group formed a committee in an effort to reach consensus on testing principles, decide on a course of fire and make recommendations to the Director of the Police Academy, the T.O.A.C., and Police Services branch of the Attorney General's office on provincial standards.

During the task analysis process of the workshop, a set of tasks related to employing appropriate firearms tactics was developed. These consisted of:

- Engaging multiple targets;
- Demonstrating movement skills;

- Remaining on target and follow through;
- Moving to and use of cover;
- Using all senses to determine appropriate action;
- Shooting in a defensive combat role;
- Delivering verbal challenge;
- Using scanning techniques and shoulder checks;
- Demonstrating appropriate reloading techniques;
- Shooting with weak hand;
- Managing ammunition and magazine; and
- Demonstrating stoppage clearance techniques.

The work of this committee was accepted and has become known as BC Provincial Firearms Proficiency Test (BC 50). This report was published in June of 2000.

Based on this proficiency test, the firearm training at the Police Academy was changed to reflect the necessary content. Course training standards at the Police Academy were modified to reflect the change from a 38-caliber revolver to semi-automatic handguns. However, the course delivery model stayed the same.

The current firearms training component of the Block I portion of the Police Officers Basic Training Program consists of 42 hours of training to take the recruit constables to the certification level mandated by the *British Columbia Police Act*. As the provincial training agency for

municipal constables in British Columbia, the Police Academy at the Justice Institute of British Columbia has been entrusted with the responsibility for ensuring that the recruits are competent in using various levels of force up to, and including, deadly force. Due to that fact, it becomes imperative that training in the area of firearms markedly enhances both officer and public safety.

The instructional hours for the Block I firearms training portion are broken down as follows:

Orientation and Firearm Safety	2 hours
Handgun Ammunition	1 hour
Nomenclature and Function Testing	2 hours
Administrative Load/Unload	1 hour
4 Points of Marksmanship	1 hour
Legal and Practical Aspect of Deadly Force	2 hours
4 Conditions of Carry	1 hour
Reloading	1 hour
Cleaning and Maintenance	1 hour
Pistol Malfunction	1 hour
Mental/Physical conditioning	3 hours
Disabled Shooting Techniques	1.5 hours
Flashlight/Lowlight Shooting	1.5 hours
Practical Firearm Drills	23 hours

There is concern with the current delivery model that the amount of material given in the six consecutive days of firearms training may be overwhelming, especially to someone with little or absolutely no firearm experience. Perceptual training findings are in line with cognitive training studies and have clearly shown that the reduction of large amounts of information into more readily usable and retainable pieces is trainable (Ericsson and Polson, 1988; Staszewski, 1988 as cited in Helsen and Starkes 1999).

It has been argued that with practice, encoding processes become faster and more reliable. "The links between mnemonic codes and retrieval structure are strengthened, resulting in more direct, reliable and faster retrieval of information" (Chase and Ericsson, 1981, p.186). Anderson (1982) states that the human system learns by doing and repeatedly practicing the new skill that is to be acquired. However, it is felt that the delivery model currently being used causes over exertion and muscle fatigue in the hand and forearm of the shooting hand. Once fatigued, the training imprint results in the recruitment of muscles that should not be involved in the mechanics of shooting. Poor muscle memory is created and consequently resulting in poor shooting skills, low proficiency scoring and high failure rates.

Provincial Course of Fire

At the end of their firearms training in Block I, each recruit must shoot two consecutive qualification targets and score a minimum of 35/50 on each one. The course of fire is as follows:

25 METERS From the interview stance, standing to the left side of the barricade, move to cover, draw and fire 5 rounds in 30 seconds. Rounds are fired standing and kneeling. Minimum string of 2 rounds.

25 METERS From the interview stance, standing to the right side of the barricade, move to cover, draw and fire 5 rounds in 30 seconds. Rounds are fired standing and kneeling. Minimum string of 2 rounds.

15 METERS From the interview stance, draw and fire 6 rounds in 15 seconds. Rounds are fired standing and kneeling with a minimum shot string of 2 rounds.

10 METERS From the low ready position, engage and fire 3 rounds in 5 seconds, then move.
From the low ready position, engage and fire 4 rounds in 6 seconds, then move.
From the interview stance, draw and fire 2 rounds strong hand only in 5 seconds and then move.

7 METERS From the interview stance, draw and fire 1 round in 2 seconds, then move.
From the interview stance, draw and fire. Fail to stop drill in 6 seconds, and then move (2 rounds to the body, 1 round to the face).
From the interview stance, draw and fire 1 round in 2 seconds, then move.
From the low ready position, engage and fire 3 rounds in 5 seconds with weak hand only, then move.

From the interview stance, draw and fire 1 round in 2 seconds, then move.

5 METERS From the interview stance, draw and fire 1 round to the face in 3 seconds, then move.

From the interview stance, draw and fire. Fail to stop drill in 5 seconds, then move (2 rounds to the body, 1 round to the face).

From the interview stance, draw and fire 1 round to the face in 3 seconds, then move.

From the interview stance, draw and fire 3 rounds in 5 seconds strong hand only, then move.

From the low ready position, engage and fire 1 round in 2 seconds, then move.

2 METERS From the interview stance, draw and fire 2 rounds in 2 seconds, then move.

From the interview stance, draw and fire 3 rounds in 3 seconds, then move.

From the interview stance, draw and fire 2 rounds in 2 seconds, then move.

(Justice Institute of British Columbia, 2000).

A minimum scoring of 70% is required to pass. A minimum of 35 bullet strikes out of the 50 shots taken must be in the five zone scoring area to attain 70%. Hits outside the five zone scoring area are zeroed. The target must have 12"x18" five zone scoring area and a head with face zone.

Review of Supporting Literature

There has been very little research done on the effects of delivery models on firearms training programs at the recruit level. Most of the literature attempts to connect firearms training practices and standards for law enforcement personnel to firearm related incidents in the field. While the literature on training standards is vast, there is a scarcity of resources directed at the rationale for such standards. There is also a significant shortage of Canadian literature and studies on the subject with most of the research being concentrated in the United States. With this in mind, the domains of development of firearms training, previous research, and other training innovations will be discussed.

Development of Firearms Training

Nineteenth century American police officers often acquired and carried handguns as a matter of personal choice rather than departmental policy. The administrative tone was casual with most executives and supervisors turning a blind eye to patrol officers carrying a sidearm while on duty (Morrison and Vila, 1998).

The lack of firearms training for these "new police officers" is not surprising considering the often corrupt, inefficient and disorganized nature of early departments. As far back as 1920, Raymond Fodsick, in American Police Systems, criticized the performance of police executives in these newly established departments by stating: "To the lack of trained and intelligent

administrators, obtaining and holding office on favorable conditions, much of the confusion and maladjustment of our police machinery is ascribable" (p. 215).

Regulations and rules were not always strictly enforced during this era of American police development as it was "a period rife with serious weaknesses surrounding command, management, control, and insubordination" (Morrison and Shave, 2001 p. 31).

When Theodore Roosevelt was the New York City Police Commissioner in 1895, he introduced his officers to handgun instruction in an effort to curb tragic firearms related accidents and poor performance in critical firearm related incidents (Roosevelt, 1985). However, his modest firearms program during 1895-1897 was followed by a return to past practices, although revolver practice remained in some form (Kahrs, 1915, as cited in Morrison and Vila, 1998).

Few departments participated in any form of departmentally mandated and organized firearms training prior to the mid 1920s. A 1919 National Rifle Association (NRA) survey of municipal departments illustrates this problem. The survey found that in police departments serving cities with populations over 25,000 people there was a definite lack of formal firearms training. At the time of the survey there were approximately one dozen law enforcement agencies, although perhaps as few as three, committed to any firearms training (Sandler and Keysor, 1995).

Even though the military, with its combat ready mind-set, was in no position to provide fledgling police organizations with guidance in the use of deadly force in a civilian setting, it was

to the military that these new police organizations turned. Army personnel often instructed police officers who were attending National Riffle Association matches or their small arms firing schools (Morrison and Shave, 2001). Military expectations about handgun marksmanship and handling provided a convenient method for the police to begin training large numbers of officers to a standard. Military derived handgun techniques such as the shooter's stance, one-handed grip and cocking the revolver's hammer with the firing hand thumb became accepted police practices (Morrison and Vila, 1998).

Between the World Wars, the NRA dominated police firearms training in the United States for a variety of reasons but partly because it was strongly motivated to assist the police. A limited number of pseudo-combat courses were introduced, modified and combined specifically for police but most were little more than thinly veiled target shooting that incorporated a larger, more forgiving target in the silhouette in the shape of a human (Morrison, 1995).

In the mid 1930s, The Federal Bureau of Investigation (FBI) entered into the field of firearms training. Due to a lack of identified training at the state and local police level, the FBI's Academy and "zone school" programs were designed to augment currently available training practices and went on to influence thousands of law enforcement trainees and more importantly their trainers (Turner, 1993). Handgun training was one of the earliest subjects included in the FBI's curriculum at what is now known as its National Academy (Hoover, 1945). One of the Bureau's most lasting contributions to police firearms training is its practical pistol course (PPC) that became the basis for competitive matches (Weston, 1960).

It is worthy of note that even the FBI has continued to adapt and change their original PPC. Currently FBI basic training involves the firing of 3500 rounds utilizing a Glock 22 or 23 semi-automatic pistol. In addition, over 250 rounds are fired from the Remington shotgun as well as approximately 300 rounds from Heckler and Koch MP5/10 submachine gun. The current training program consists of 80 hours of training on stationary or turning targets, which primarily cover the fundamentals of shooting. A further twenty-five hours are spent on combat style targets as well as using the Firearms Training System (FATS) for judgmental training in computer generated situations. (Vizzard and McCrystle, 2002).

The early PPC still remained rooted in standard target shooting with no movement of the target or the shooter. It should be noted that 50 percent of the PPC's shots were from taken from 50 and 60 yards and 80 percent were fired from 25 yards or greater (Hoover, 1945). The use of a single target prevailed and the PPC used a very generously proportioned Colt police silhouette target.

Early assumptions about the connections between training, qualification and field shooting performance by the NRA and the FBI led to unrealistic expectations of police performance potential in armed confrontation (Morrison and Vila, 1998). Although New York City was unsuccessfully sued in the 1950s (Meisteinsky vs. City of New York, 1954) for failing to provide adequate firearms training to its police officers, it nonetheless examined its program of bull's-eye training and qualification. As a result, it subsequently included combat style training along the

lines of the PPC. However, bull's-eye style based training still enjoyed a sizeable following long after the PPC introduction firearms training (McManus, Griffen, Witterroth, Boland, and Hines 1970).

It is of interest that most departments took great liberties in the modification of the original PPC course. They reshaped the course as it pleased them, in the process changed it to conform to their local ideas about appropriative course design (McManus, Griffen, Witterroth, Boland, and Hines, 1970).

Generally speaking, the course adaptations eased the course's administration and its challenges to include:

- Shortened maximum distance;
- New intermediate distance of 15 yards;
- Decreased emphasis on support positions;
- Reduced time limits; and
- Firing sequences reduced from six shots to two or three.

However, it is felt that these changes were more cosmetic than substantive (Morrison and Vila, 1998).

In 1972, a survey conducted by the International Association of Law Enforcement Standards and Training, identified firearms training as one of fifteen curriculum categories. Although a number of states held a variety of training standards it was found that the average recruit-training

program ranged from 8 to 42 hours with an average of 23 hours. As a result, the typical introductory firearms training component consumed approximately 10 percent of the available training hours (Wall and Culloo, 1973 as cited in Morrison and Vila, 1998). The current Block I firearms component of the Police Officers Basic Training Program at the Justice Institute of British Columbia contains 42 instructional hours out of a total of a maximum of 385 hours for an approximate percentage of 9 percent of the overall instructional hours (Justice Institute of British Columbia Police Officer Basic Training Program Sequential Lesson Plans, 2002).

In the 1980s, two national professional organizations looked towards firearms training and the application of deadly force as their focus. The International Association of Law Enforcement Firearms Instructors (IALEFI) and the American Society of Law Enforcement Trainers (ASLET) held regional and national conferences as well as produced professional journals (Morrison and Shave, 2001).

The Federal Law Enforcement Training Center (FLETC) introduced a modified PPC course in 1993. In contrast with the original PPC, it consumed 60 cartridges and emphasized closer target distances of 3,7,15 and 25 yards, one to three shot firing sequences and frequent firing from the ready positions. It still retained features of the original including drawing and firing, one and two firing, weak hand shooting, simulated cover and support firing positions (Smotzer, 1993 as cited in Morrison and Vila 1998).

Other training changes came when most police and law enforcement agencies transitioned from revolvers to semi-automatic weapons. Some studies indicated that departments would see a drop in qualification scores but Cheatwood (1991) argued that should not be an area of concern, as long as the emphasis is on realistic shooting situations, particularly at close range. He stated

> The old format for training and shooting fostered accuracy in the classic sense. One aimed at a small, distant target with single rounds spaced to the shooter's best scoring advantage. The new format fosters firepower close–up. The distances involved are shorter; rounds are grouped and only hit/no-hit counts in scoring. (p.50).

Today, police recruits in the United States and Canada face courses of fire as a requirement in their police academy curriculum and in-service officers encounter periodic qualification and training courses. Firearm qualification is a well-established and apparently credible manner that departments and law enforcement agencies attest to officer competence (Morrison and Shave, 2001). "The universal acceptance of both the process and product of handgun qualification today strongly implies that officers exceeding the prescribed minimum performance standards are proficient" (Morrison and Vila, 1998, p.510).

Previous Research

Police managers who rely on officer's qualification scores as an indicator of their ability to function in a critical incident in the field are making the assumption that the firearms training program rests upon apparently defensible content and practices. Caution should be used in drawing such an inference. Studies have indicated the hallmarks of marksmanship and firearm qualification; stance, breath control, trigger squeeze, etc, are not the factors that generally characterize deadly force encounters (Baratta, 1999).

Morrison and Vila (1998) stated that "conventional target shooting never sought to duplicate field characteristics such as physical exertion, darkness and other reduced lighting, or dynamic, close range multiple targets" (p. 517). They have grave concerns regarding the validity of law enforcement training programs and discount any notion that qualification on such courses should in any way imply competency. An interesting assessment of training validity found in this study indicates that:

> ...there are sufficient similarities between levels of field marksmanship reported for untrained nineteenth century police officers, untrained contemporary opponents and today's well equipped, highly trained and handgun "qualified" police officers to tentatively support our contention that police handgun training doctrines and techniques might provide poor preparation for the challenges posed by armed confrontations (p. 527).

Morrison and Vila (1994) produced a study that looked at the biological limits to combat handgun-shooting accuracy. Their research concludes that biological factors associated with combat shooting substantially limit performance. Their recommendations included the need to develop new and valid criteria for police firearms training and qualification.

In an effort to try to determine shooting scores from physical performance data, Anderson and Plecas (2000) found that although female recruits have much less grip strength than male recruits, such a deficiency was rejected as a factor in shooting accuracy. This seems to be contradicted in a study conducted by Copay and Charles (2001) where female recruits undergoing basic firearms training scored significantly lower than the males. They state the difference in scores appears to be as a result of the influence of grip strength.

In another study that looked at gender issues, it was found that fitting hand size to a particular firearm could enhance weapon suitability and control. With the predominance of male officers, female officers are left with weapons not suitable with respect to weight, fit or hand strength (Atkins, 1993).

In another study comparing the performance of male and female recruits, Auten (1989), expressed concern over the lack of success of female officers during firearm training and qualification. The study showed that female recruits exhibited constant problems with sight alignment and trigger control and missed the primary target score much more than male recruits, especially beyond the 15-yard range. In addition the study stresses the need to attend to the "sizing" of the weapon.

In a study conducted by Brown and Sargent (1995) gender differences are discussed once again. Their article (that does not specifically study or compare firearms performances of the males and females that make up the less than 6% of officers carrying firearms in Britain) does note that the literature "has been unable to demonstrate any significant operational failings of women officers in terms of firearms capability" (p.12). However, caution should be used with this study due to the admittedly small number of females contained in the sample.

Training Innovations

Although the research conducted in this project is to focus primarily on the delivery model of a recruit firearm training program, opinions and theories have been discovered that take into account new training innovations that will influence firearms training in the future.

In an article in *Law and Order* (2002), Thomas Aveni states that what is slowly emerging in the firearms training field is the realization that the training must be addressed within task oriented contexts. He further states that the "when" and "where" to use firearms is finally being seen as essential as the "how" of using a firearm (p.242).

He makes the argument that most courses of fire include a stage at the 25-yard distance. This would include the Justice Institute of BC Police Academy course of fire for recruit training which contains a ten shot string at 25-meters. He goes on to state that successful completion of the 25-yard portion of the qualification course suggests competency at that distance. The frequency of missed shots at the 25-yard distance should imply incompetence at this stage of the qualification course. Qualification at the 25-yard stage goes on to imply that the police agency endorses the application of deadly force at that distance with the issued handgun.

This acceptance of a 25-yard stage during qualification indicates a certain degree of deliberate indifference to the fact that statistics show many or most officers are not competent at the 25-yard distance. Aveni (2002) states, " the 25-yard courses of fire still represent a vestige of thinking that would be very hard pressed to defend in a court of law " (p. 242).

Tate (1998) argues that police are not being adequately trained in sight acquisition and sight alignment. Rather, the bulk of training is oriented toward point shooting, with "the visual concentration of the shooter being on the intended target" (p.26). He submits that because shootings typically occur in poor light and at distances of less than 10 feet, there is a reluctance to train officers in sight shooting. The problem then becomes the fact that officers are often ill equipped to respond appropriately when this distance grows. The author dismisses the notion that point shooting and aimed shots are contradictory and urges trainers to incorporate both.

In his study from 1998, Clede cites several accuracy studies and notes that a typical rate of hits per shots fired, ranges from 30-39%. The author suggests that the traditional training of police officers can and should be supplemented with simulated computer and video training.

A research team found that meditation, in combination with biofeedback, significantly improved shooting accuracy (Couture, Singh, Lee, Chahal, Wankel, Oseem and Wheeler, 1999). It must be stressed that these strategies, by themselves, had little or no impact. This supports the claim that internal and external sensory pathway interruption techniques, together, can enhance performance. This study showed that a fatigued person's shooting accuracy could improve without going to a shooting range. Such mental training techniques could easily reduce costs associated to conventional training. However, despite the promising results of mental training, it is noted that the police culture may lack the necessary social support for a holistic training strategy.

Helsen and Starkes (1999) conducted a study on the incorporation of theoretical approaches to the training of decision-making expertise found within cognitive psychology. Twenty-four police officers with moderate experience, participated in one of four training programs of 910 hours each. Decision and intervention skills were assessed pre-and post-training through the use of slide and video simulations or real world intervention situations. The study found that despite increased resolution skills, shooting efficiency remained low in all groups.

In their study for the California Department of Corrections and the California Youth Authority concerning firearms standards, Vizzard and McCrystle (2002) acknowledge the FBI and their use of technology that has been integrated into its basic firearms training program. They have developed a program know as the Marksmanship Diagnosis System (MDS).

This system provides the ability to monitor the mechanical skills necessary for basic shooting. The system employs a firearms training video system that allows the instructor to observe the exact sight picture seen by the student. A student wearing specially equipped glasses takes aim and through miniature video cameras mounted in the glasses, transmits a sight picture to the instructor. Through another series of monitors the instructor is also able to plot bullet strikes and compare them to the sight picture acquired by the student. The MDS system is also capable of monitoring the precise trigger pull and control of the student. It is of note that in 2002, 1800 new FBI agents had undergone firearms training using MDS and only 18 were unable to qualify (Vizzard and McCrystle, 2002).

In an effort to provide more realistic training to their officers, the Anaheim Police department in California has developed a training course related to situations likely to be encountered by police. In his article in the *FBI Enforcement Bulletin*, Schrader (1988), reports that Anaheim police officers are required to shoot six courses of fire each year. Realism, decision-making, stress and shoot or don't shoot scenarios are some of the underlying factors in the design of each course. Courses also encompass the use of props, such as sirens, low light, no light, radio transmissions and people yelling and screaming in the background. Comprehensive documentation on each officer's performance is maintained by a computerized record management system.

CHAPTER THREE:

RESEARCH METHODOLOGY

Research Methods

The purpose of this project was to determine if the delivery model of the material in the firearms portion of the recruit-training program affected shooting accuracy and qualification scoring. Specifically, would delivering the material contained in the firearms segment of the Block I training curriculum over a length of time that incorporated longer periods of rest between components in the training segment enhance shooting accuracy?

This study offers an opportunity to incorporate the principles of both evaluation and action research. In a true application of action research, this situation provides a unique opportunity to solve a practical problem while improving the operations or practices of the institution involved (Parsons, 2000). It also allows the individuals participating in the study to take an active role in the research process (Neuman, Wiegand and Winterdyk, 2004). Evaluation research also "measures the effectiveness of a program, policy or way of doing something" (Neuman, Wiegand and Winterdyk, 2004, p. 27). This study proposes a potential solution to its hypothesis while at the same time constantly evaluating its outcomes.

The methodology used in this study was fairly straightforward. A new delivery model was designed and used to deliver the firearms training component of the Block I segment of the Police Officers Basic Training Program. The material contained in the segment was not varied, nor were the hours of instructions given to each segment contained in the firearms component altered. The bullet strikes of the recruit's various targets were measured from center mass and

analyzed for accuracy and were then compared to a recruit class that was trained under the established delivery model.

Although the firearms training component of the Police Officers Basic Training Program is a mandated requirement that must be completed before the recruit can be deemed a qualified municipal constable under the *British Columbia Police Act*, all recruits were briefed on the study and given an information letter (see Appendix A). All recruits granted their permission to allow their results from the firearms segment to be used in the study.

The Training Officers Advisory Committee (TOAC) was also advised that this study would be taking place. Due to the role of the TOAC, they were ideally placed to be an advisory committee on the study. The involvement of individuals who will be affected by a process of change makes them more likely to be supportive of that process (Kouzes and Posner, 1995). Although the new training model would not affect the training officers, recruits from their departments would be and it was therefore felt that their input would assist in the acceptance of the study's results and recommendations.

All departmental training officers that were members of the TOAC at the start of this project, start agreed that the study would be worthwhile and may prove to be extremely beneficial to current and future recruits coming through the Police Officers Basic Training Program. All municipal police departments in the Province of British Columbia were represented on the TOAC.

Study Conduct

This research project began with the September 2002 meeting of the Training Officers Advisory Committee. At that time they were informed of the study intent and given assurances that the recruits participating in the study would receive the same information and training albeit in a different delivery model. The same criteria would be used for qualification at the end of the Block I portion of the training.

Two different delivery methods were used in this project. Course content and hours of instruction remained constant. The results of the recruit classes that had periodic breaks from range training incorporated into their firearms training segment were compared to the accuracy of the recruit classes that received their training under the old delivery model. As all recruits had to attain the minimum qualification score of 35/50 it was felt that a more accurate measure of the impact of the new delivery model would be to determine the bullet strike distance from the center of the target. As a result, measurements were taken on each target indicating how far each bullet strike was from center mass. The results were then compared.

Questionnaire

As part of the background information, a questionnaire (see appendix B) was completed by all recruits involved in the study. This provided basic tombstone data on each recruit as well as information on weapons that they would use in training, gender, whether the recruit was left or right handed, previous firearms training and other information to establish some baseline norms for each class. Kirby and McKenna (1989) state that the use of questionnaires allow for the "systematic collection of data" (p. 74) and the questionnaire used in this study gathered useful, necessary information that was not collected on previous classes and would help make a more complete analysis of the findings of the project.

Prior to each recruit class beginning the firearms component of the Police Officers Basic Training program in Block I, each recruit completed the questionnaire and the entire class received an overview of the study's intent.

To conclude the project, a meeting will be held on October 10, 2003 to present the findings to the Training Officers Advisory Committee. The Director of the Police Academy will also be advised of the study outcome.

Sample

A total of 127 officers volunteered to participate in the study. This represented 100% of all recruits in each of the five recruit classes. One class of recruits was trained under the old delivery system while four classes received the training over a lengthier period of time. Course content and instructional hours did not change with the new delivery model, although periods of rest between training days were increased.

Data Analysis

The data used in this project were the targets from the 127 recruits from four separate classes that they shot during the Block I firearms training component of the Police Officers Basic Training Program. The targets were scored using the usual method to determine the qualification score for each recruit and then again by measuring the number of inches each bullet strike was from center mass of the target. The results from the three classes trained under the new delivery model were compared to the results from the class trained under the old system.

The *Statistical Package for the Social Sciences* (SPSS) was used to code and analyze the data from the questionnaires as well as the data gained from the targets. Putting the data into SPSS format enhanced its potential for future use in other projects that may be linked to the efficiency and effectiveness of firearms training for law enforcement personnel.

Ethical Considerations

All recruits that undergo the Police Officers Basic Training Program are mandated by the *British Columbia Police Act* to successfully complete the program before they can be qualified as a municipal constable in the province of British Columbia. All of their assessments, marks and qualifications form part of their personnel file at the Police Academy at the Justice Institute of BC and at their home police department. All recruits gave their informed consent to allow the scores on their firearms qualification and practice targets to be used in the study. To ensure privacy, the specific scores and results for each recruit were not individually identified in this study.

CHAPTER FOUR:

RESEARCH STUDY RESULTS

Study Findings and Conclusions

Current Delivery Model of Firearms Training

The total number of officers involved in the study was 127. There were 94 male officers (74%) and 33 females (25%). In compiling the data used in the accompanying tables, female officers were not considered in the final analysis. It was felt that the number was not sufficient and there were too many variables involved to provide an accurate representation of their performance

The average age of the recruit in the sample was thirty years old. Of the 94 male officers whose targets were analyzed 47% (44 officers) had some form of previous firearms experience while 71% (67 officers) were using a Beretta Model 96D 40-caliber handgun. It is of note that the only department to use the Berretta Model 96D 40-caliber handgun as their service weapon is the Vancouver Police Department. The other 10 municipal departments in the province of BC use the Glock Model 22 40 caliber handgun while the Royal Canadian Mounted Police (RCMP) use a Smith and Wesson.

Table 1 below indicates the difference between the first scored target and last scored target between the two groups that underwent different delivery models. As shown by the table, there is no significant difference shown between the two groups regardless of the delivery of the material contained in the firearms component of the Block I training.

The data contained in the Table 1 also shows that recruits, who attend the Police Officers Basic Training Program with some previous firearms training, begin their firearms training with an advantage but do not improve significantly during the course of training.

Between the sub-groups using a Beretta or a Glock there does seem to be some increased accuracy for those officers using a Glock Model 22 40 caliber.

Police Recruit Firearms Training

TABLE 1

DIFFERENCE BETWEEN FIRST SCORED TARGET AND LAST SCORED TARGET AS MEASURED IN AVERAGE INCHES OFF CENTER MASS

Recruit Sub-Group	First Target	Last Target *
Trained Over twelve day cycle	6.6	6.5
Trained Over twenty-four day cycle	6.7	6.5
Recruits Using Baretta	6.9	6.7
Recruits Using Glock	6.2	6.0
Recruits With Previous Firearms Experience	6.2	6.0
Recruits With No Previous Firearms Experience	7.1	6.9

* Difference between first and last targets is not statistically significant @ 0.05 (as per paired sample T-test).

Final Qualifying Status

Table 2 illustrates the accuracy of the recruit to his or her final qualifying status. It should be noted once again that all recruits are mandated to successfully complete the firearms component Police Officers Basic Training Program and that this data is taken before all officers who fail to qualify undergo remedial training. Although all sub-groups listed from both training delivery models show some slight improvement, the difference between first and last targets is not statistically significant.

Police Recruit Firearms Training

TABLE 2

DIFFERENCE BETWEEN FIRST SCORED TARGET AND LAST SCORED TARGET AS MEASURED IN AVERAGE INCHES OFF CENTER MASS

Recruit's Final Qualifying Status	First Target	Last Target *
Failed	7.8	7.7
Qualified (minimum 35/50)	6.9	6.6
Crossed Pistol Qualification (minimum 45/50)	5.4	5.1
Crown (50/50)	5.2	4.8
Overall	**6.7**	**6.5**

* Difference between first and last targets is not statistically significant @ 0.05 (as per paired sample T-test).

Weapon Comparison

Table 3 further illustrates the differences between the officers who use the Berretta Model 96D 40 caliber and the officers who are issued and shoot with the Glock Model 22 40 caliber handgun. The data contained in Table 3 illustrates that the differences between the two groups is statistically significant and it would appear that Beretta users are at a disadvantage for qualifying and earning firearms proficiency recognition.

Police Recruit Firearms Training

TABLE 3

PERCENTAGE OF RECRUITS WHO FAILED FINAL FIREARMS QUALIFICATION (BERETTA VS. GLOCK USERS)

Recruit's Final Qualifying Status	% Who Used a Beretta	& Who Used a Glock *
Failed	37 %	11 %
Qualified	40 %	47 %
Crossed Firearm	21 %	42 %
Crown	3 %	∅

* Difference between Beretta users and Glock users in terms of the percentage who fail (vs. pass) is statistically significant at 0.03.

Study Recommendations

Recommendation One

That the instructional hours of the Block I portion of the firearms training segment be increased and that the timeline for the delivery of the material not be changed.

Each graduating class of police recruits undergoes a debriefing session with the Director of Police Training Services prior to returning to their departments. The classes involved in the study unanimously recommended to the Director of Police Training Services that the hours devoted to the Block I portion of the firearms training program be increased. They felt that they needed more practice time to become capable of firing a qualification score and to absorb the material contained in the firearms component. This extra time for practice of newly learned skills is represented in the data as recruits who have previous firearms experience start off being more accurate with their weapon compared to recruits who have no previous experience.

It is also recommended that the delivery model of the training not be changed. The very minor increase in accuracy for the majority of the recruits would not be worth completely remodeling the Police Officers Basic Training Program.

Recommendation Two

That serious consideration be given to properly fitting weapon used to the hand size of the officer to allow for maximum accuracy for all officers.

The study shows that the Glock Model 22 40-caliber handgun is a more accurate weapon for officers than the Beretta Model 96D 40-caliber handgun. It is recommended that departments who currently use the Beretta as their issue service weapon give consideration to allowing recruits the opportunity to use a Glock or smaller Berretta model semi-automatic pistol in an effort to enhance shooting accuracy.

CHAPTER FIVE:

RESEARCH IMPLICATIONS

Organizational Implementation

Recommendation One

That the Block I firearms portion of the Police Officers Basic Training Program be increased by 14 hours, but the delivery model of the course content remain the same.

As of September 2, 2003, the firearms portion of the Block I Police Officers Basic Training Program will be increased from 42 hours to 56 hours. As shown in the data, there seems to be some advantage to individuals that have some previous firearms experience prior to attending recruit training at the Police Academy at the Justice Institute of British Columbia. However, the time span for the delivery of the program does not have a significant impact on accuracy or qualification.

The increase in training time will be used to gain more familiarity with the recruit's service weapon and to allow for more range practice time. By becoming more at ease with the service weapon the recruit should become more comfortable on the firing line and as a result accuracy should increase and the failure rate should be reduced.

Recommendation Two

That serious consideration be given by the various municipal police departments to allow their officers to use a smaller version of the semi-automatic service weapon

This recommendation may be more difficult to put into effect as the Police Academy at the Justice Institute of British Columbia has no authority to dictate to a department which weapon would be more appropriate for their personnel to use. The TOAC will receive a presentation on the study's results and recommendations when it will be stressed that the appropriate weapon for a specific individual may not be the usual issue service weapon and in order to enhance the shooting accuracy of the officer some flexibility should be allowed in weapon issue.

Recommendation Conclusions

The first recommendation has already been put into place and will become effective in September 2003. The second recommendation will be at the discretion of the recruit's home agency and will be dependant on factors outside of the control of the Police Academy at the Justice Institute of British Columbia.

Future Research

The project opens the door for further study concerning the concept of firearms training in the realm of law enforcement. There have been comments made throughout this paper that indicate that there may be significant shortcomings in firearms training.

Morrison and Shave (2001) state, "practitioners have not critically examined the philosophy, theory and doctrine that are the substance of their training program" (p.37). Perhaps in an effort to appease an ever more demanding public, police departments and law enforcement agencies have resorted to giving them a readily understandable criteria that matches the public's conception of handgun proficiency rather than providing realistic training courses based on field situations.

It is strongly recommended that more research be done into the area of firearms training in an effort to establish a justifiable, effective training program that enhances a police officers ability to respond effectively and efficiently in life threatening situations while increasing both officer and public safety. The current qualification standard used at the Police Academy at the Justice Institute of British Columbia should be critically analyzed with specific attention given to the justification of keeping any segment of the qualification standard at the 25-meter range. Shooting at the 25 meter range may have some purpose regarding attaining a sight picture, breathing patterns, trigger pull and other mechanical functions of shooting but given the material contained in this project, the validity of having a qualification segment at that range is brought into question.

It would appear from the data collected and from the literature reviewed for this project, that the weapon used in qualification has an impact on accuracy. It is recommended that further research be undertaken, specifically surrounding matters of gender and firearms proficiency as it relates to weapon selection.

It is further recommended that the length of delivery of the material contained in the firearms segment of the Police Officers Basic Training Program be studied further. Although the data collected showed no significant impact on accuracy by extending the time of delivery, accuracy may be increased and failure rates reduced if the material were to be delivered over an even longer period of time.

CHAPTER SIX:

LESSONS LEARNED

Research Project Lessons Learned

This project was undertaken in an effort to critically analyze the firearms training given at the Police Academy at the Justice Institute of British Columbia to determine if there was a more effective method of delivering of the material. It was felt that if the delivery of firearms training could be enhanced, it would result in a lower failure rate and better shooting accuracy. This in turn would result in fewer police officers hurt or killed in critical incidents, and fewer unintended civilian causalities due to misplaced bullets fired from an officer's weapon while engaged in a gun battle with a suspect.

Although the study showed that the timeline of the delivery of the material had no significant impact on the shooting accuracy of the recruits, the study did produce some concerns as to the validity of firearms training not only at the Police Academy at the Justice Institute of British Columbia, but at the majority of training establishments and law enforcement agencies throughout North America. It may be felt that any firearms related activity should increase an officer's ability to respond to armed confrontations in the field. However, the critical question of "how does firearms training and qualification impact officer performance in life threatening critical incidents" remains unanswered.

The practice of accepting current training methods and procedures without relating them to relevant field situations that the officer may encounter seems too prevalent in law enforcement firearms training. Much more research is needed in this field to create a justifiable and practical

firearms training component that law enforcement agencies can use to enhance the safety of their officers and the general public.

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Appendix A

Recruit Information Letter

The firearm component of the Block I training portion of the Police Officers Basic Training Program consists of 42 instructional hours. In the past this training was delivered on 6 alternating days over a twelve day training cycle. In an effort to facilitate greater scoring proficiency and accuracy and to reduce the number of failures, the training has now been broken down into one day segments followed by at least one day of rest before resuming the next phase of the training. The number of instructional hours will remain the same during this new delivery model.

During the course of your Block I portion of the Police Officers Basic Training Program you will be required to attain a score of 70% on the qualification firearm standard commonly know as the BC50. You must attain this qualification before you may participate in the Block II portion of the training program.

To allow for proper evaluation of the success of this new delivery model of firearms training, your qualification scores will be compared to those of classes that will undergo the same training albeit, in the old delivery model. This letter is to inform you that this comparison will be taking place. Your names will not be mentioned in any written report other than what is required to inform your department as to your qualification standing. Your scores will be held at the Police Academy as part of your training record.

If you have any concerns or questions please do not hesitate to contact me directly.

Thank you for your cooperation in this training endeavor.

Yours truly,

Inspector Mike Trump
Program Director
Police Training Services

Appendix B

Recruit Questionnaire

FIREARM TRAINING QUESTIONNAIRE

Name _____

Department _____

Gender ☐ Male ☐ Female

Age _____

Do you have previous police experience? (include auxiliary/reserve training)

☐ Yes ☐ No

If yes, where and for how long? _____

_____

Have you ever fired a handgun? ☐ Yes ☐ No

☐ Revolver ☐ Semi-automatic

If yes, have you previously undergone any firearm training?

☐ Yes (number of hours spent training _____ ☐ No

If yes, where was your previous training held? _____

_____

What did your previous firearms training consist of? (Check all that apply)

- ☐ Firearms Training safety
- ☐ Handgun/Ammunition Orientation
- ☐ Nomenclature
- ☐ Pistol Functions Test
- ☐ Loading/Unloading
- ☐ Four Points of marksmanship
- ☐ Cleaning/Maintenance
- ☐ Skills practice
- ☐ Legal and Practical Applications
- ☐ Conditions of Carry
- ☐ Draw/carry and holster
- ☐ Reloading
- ☐ Stoppages
- ☐ Mental/Physical Conditioning
- ☐ Sight picture

How would you rate your ability in shooting a handgun?

- ☐ Superior
- ☐ Above Average
- ☐ Average
- ☐ Below Average
- ☐ Poor
- ☐ Never Shot

Which hand do you shoot with?

- ☐ Right
- ☐ Left

What firearm will you shoot with?

- ☐ Beretta
- ☐ Glock