STUDENT, PARENT, AND TEACHER ATTITUDES TOWARD VIDEO SURVEILLANCE MONITORING

by

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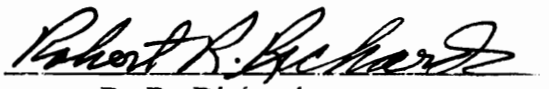
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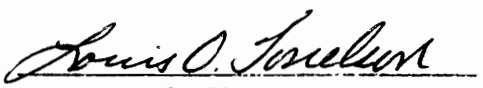
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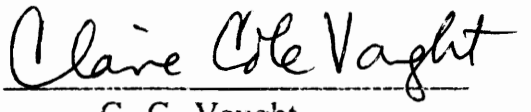
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(ABSTRACT)

Acts of violence and student misbehavior in our nation's schools are widely documented. In response, some schools employ video surveillance cameras (VSCs) in their hallways. Student, parent, and teacher perceptions of video surveillance monitoring are essentially unknown. This study examines the effect, if any, of the presence of video surveillance cameras in schools. It specifically considers their effect on the attitudes of students, parents, and teachers toward student behavior, school safety, and feelings of privacy.

The scope of this study was limited to the students, parents, and teachers of one middle school and the students of another middle school. The first school utilized video surveillance monitoring in school hallways, the second did not. The population included the 2690 middle school students of School A and School B. The population also included the 89 teachers and over 1350 parents of School A. Thirty percent of the students in each of the two schools were chosen through a random selection of homeroom classes and given consent

forms to return signed by their parent. The researcher expected a return rate of 15 percent. Homeroom teachers administered a short questionnaire during the regularly scheduled advisory period. Questionnaires were sent to School A parents who indicated a willingness to participate in this study. All School A teachers, excluding those absent, consented to participation and completed the questionnaire during a scheduled faculty meeting.

No anticipated risks or benefits to participants existed in this study. Students and teachers remained anonymous. Parental participation was confidential and identifiable only by a predetermined code. Data analysis consisted of determining the frequencies of each response and percentages of respondents in each category of the five point response categories. Cross tabulations and a chi-square test were conducted on the data.

This study permits school officials to examine student, parent, and teacher attitudes toward video surveillance monitoring in middle school hallways. Favorable attitudes may indicate that video cameras effectively curtail student misbehavior and increase safety.

DEDICATION

Dedicated to the ones I love:

My wonderful wife, Kathleen

and two fantastic sons,

Geoffrey and Patrick.

For they never once complained.

With loving gratitude to my father,

Charles Spivey, Sr.

And in memory of my mother,

Barbara Spivey.

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The African proverb states, "It takes a whole village to raise a child." In my experience, "It takes an entire school to raise a doctoral student." I offer my gratitude to those Plaza Middle School colleagues who gave freely of their time, and extended encouragement throughout this extraordinary endeavor. Members of the clerical staff were most helpful, especially Jane Dantonio, Linda Fitzsimmons, Marjorie Long, Sandy Maxwell, and Marilou Schindler. I applaud my colleague and friend, Dr. Nancy Ward, for her contribution as proof reader and editor. Nancy's expertise and dedication to excellence is inspirational. Finally, a sincere thanks to my principal, Jim Walker, for his support throughout this process.

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CHAPTER I

INTRODUCTION TO THE STUDY

Introduction

Middle schools across the country experience increased acts of violence and student misbehavior occurring in hallways. Some types of violent acts originating in neighborhoods and communities make their way into school buildings. People frequently view guns, physical assaults of teachers, gangs, drugs, increases in girls fighting, and student verbal abuse as major contributors to incidents of school violence. At times, incidents of hallway violence go undetected by school officials due to limitations associated with monitoring hallways. Increasingly, schools are challenged to provide successful interventions for confronting behavior problems in school corridors.

Employing video surveillance cameras (VSCs) in middle school corridors represents one intervention to decrease the number of student behavior problems. During the spring of 1995, members of a middle school planning council determined intervention was necessary to curb student misbehavior in the school's hallways. The council consisted of sixteen members, including seven community members. The Planning Council provided opportunities for

community members to join teachers and the principal in developing and assessing school improvement initiatives. The Planning Council members felt the presence of VSCs would (1) decrease the frequency of student behavior problems occurring in school hallways, (2) permit students to feel safer while traveling in school hallways, and (3) reduce teacher concerns regarding school safety. They believed the devices would decrease the number of discipline referrals issued by teachers and improve teacher attitudes toward school safety. In August 1995, the school installed five video surveillance cameras in difficult to monitor hallways where student behavior problems most frequently occurred. Additionally, the school installed five monitors and one video recorder. VSCs began operating on the first day of school during the 1995-96 school term.

Statement of the Problem

Acts of violence and student misbehavior in our nation's schools are widely documented. In response, some schools employ video surveillance cameras in the school hallways. In the educational field, little research exists regarding video surveillance monitoring as a method for deterring acts of violence and curbing student misbehavior. Student, parent, and teacher perceptions of video surveillance monitoring are essentially unknown.

This study examines the effect, if any, of the presence of video surveillance cameras in schools. It specifically considers their effect on the attitudes of students, parents, and teachers toward student behavior, school safety, and feelings of privacy. Research questions to be answered include:

1. Do VSCs effect perceptions of student behavior?
    a. Do students behave better while being monitored by video surveillance cameras?
    b. Are students prevented from misbehaving by video camera surveillance?
2. Do VSCs effect perceptions of school safety?
    a. Do students feel safer in hallways monitored by video surveillance cameras?
    b. Do parents feel their child is safer in hallways monitored by video surveillance cameras?
    c. Do teachers feel safer in hallways monitored by video surveillance cameras?
    d. Do students feel video surveillance cameras make their school a safer place?
    e. Do parents feel video surveillance cameras make their child's school a safer place?

f. Do teachers feel video surveillance cameras make their school a safer place?

3. Do VSCs effect feelings of privacy?

   a. What is the student awareness level of the presence of video cameras?

   b. What is the teacher awareness level of the presence of video cameras?

   c. Do students mind being watched by video surveillance cameras?

   d. Do parents mind their children being watched by video surveillance cameras?

   e. Do teachers mind being watched by video surveillance cameras?

   f. Do students feel spied upon by video surveillance cameras?

   g. Do teachers feel spied upon by video surveillance cameras?

   h. Do parents feel their child is being spied upon by video surveillance cameras?

4. Will installation of additional VSCs decrease student misbehavior and increase school safety?

Purpose of the Study

This study examines the attitudes of middle school students, teachers, and parents to determine if the presence of video cameras affects their feelings toward the cameras and their feelings toward school safety.

Significance of the Study

This study will permit school officials to examine student, parent, and teacher attitudes toward video surveillance in middle school hallways. Favorable attitudes may signify the effectiveness of video cameras in curtailing student misbehavior and student violence. Unfavorable attitudes may indicate the ineffectiveness of these devices in curtailing student misbehavior and student violence. The results of this research may prove beneficial to schools considering the implementation of a video surveillance program in their building.

The results of this study will contribute to the growing body of research relating to VSCs in a school setting. These devices may be an effective method of increasing safety and encouraging appropriate student behavior without increasing the number of school personnel required to monitor school hallways.

Definitions

Video Surveillance Camera: a small, solid-state camera mounted on the wall or ceiling in school hallways and linked to a video monitor

Middle School Student: a student who attends a school designated to serve grades six through eight

Middle School Parent: the care giver of a student who attends a school designated to serve students in grades six through eight

Middle School Teacher: the individual who teaches in a school designated to serve students in grades six through eight

Attitude: a predisposition to behave in a certain way

Limitations

The scope of this study will be limited to the students of two Virginia Beach city middle schools. It will include the parents and teachers of one of the two schools. School A is the only school in the Virginia Beach City Public Schools district known to use video surveillance cameras in hallways. School B, a neighboring school, does not employ video surveillance monitoring in school hallways. Both schools are of similar size and possess similar demographic factors.

Organization of the Study

The introduction sets the context for the research problem. Background information, the purpose of the study, significance of the study, definitions, and limitations assist the reader in understanding the problem. The literature review focuses on video surveillance monitoring in school settings. This study addresses relevant topics and considerations. Further, the literature and the case law reveal that the use of video surveillance monitoring in middle school hallways does not violate privacy rights of individuals.

Data will be gathered, analyzed and reported. The information reported will assist in answering the research questions. The study will close with a summary of the researcher's findings and recommendations for future research.

CHAPTER II

LITERATURE REVIEW

Introduction

An upswing in crime stimulates demand for security measures (Ban & Ciminillo, 1977). This demand leads to the proliferation of the crime prevention industry. Ban and Ciminillo estimate American businesses paid 36 billion dollars in 1976 to prevent crime and to facilitate apprehension of criminals. Americans spent over 80 billion dollars on public K-12 education in 1976 alone. Although determining the percentage spent on school security presents difficulty, statistics prove the total security bill and per pupil outlay for safe schools continue to rise steadily (Ban & Ciminillo).

Finding crime prevention to be lucrative, companies evolve to specialize in training personnel and in designing sophisticated electronic equipment for customers, including schools (Ban & Ciminillo, 1977). "School security has now become one of the most serious problems in education. It has grown to encompass all the elements under the jurisdiction of the school: teachers, students, noncertified personnel, supplies, equipment, plant facilities and school grounds" (p. 21).

Increasingly, schools turn to security hardware to combat crime and vandalism (Ban & Ciminillo, 1977). Citing a New Jersey survey, Ban and Ciminillo report entrances, exits, rest rooms and areas outside school buildings prove especially vulnerable. Upon review of survey information provided by the National Institute of Education (NIE) and the National Center for Education Statistics, Rubel (1979) recommends schools with serious security problems consider surveillance and traffic control in areas where incidents normally occur: hallways, stairwells, and cafeterias. Schools must select security devices with care and with reference to the school's specific needs. Although helpful in reducing violence and vandalism, school security measures cannot be used as a substitute for effective governance (Rubel).

In 1982, The Youth Subcommittee of the Virginia State Crime Commission recommended "security resources, both personnel and hardware, should be distributed to schools, not simply on the basis of [the level of the school] . . . but also on the location of the school and on its history of serious incidents" (p. 4). Citing a National School Boards Association study, Brown (1994) reports that of the 29 security measures used by school districts to combat youth crime, closed-circuit television was used 11% of the time.

Referring to the Safe School Study (NIE, 1978) Gottfredson & Gottfredson (1985) warn:

> . . . [We] are obliged to note these results do not provide any support for suggestions that security measures increase safety. As a practical matter, schools adopting new security systems should do so with circumspection. To our knowledge no rigorous evaluations of such systems have been conducted. Therefore, school systems should approach the installation of security procedures and devices experimentally, and seek the assistance of impartial evaluators in the implementation of their experiment. (p. 121)

School Violence

The reports of youth and school related violence instills shock. Frank Newman, president of the Education Commission of the States, expresses this opinion:

> Crime and violence [are] is down across the country, but what's up is youth violence, and what we haven't come to grips with is the core of kids who are becoming more violent, more armed and unaffected by the

norms of society. It's a real cancer, and we're not addressing it. (Applebome, 1996, p. 12)

In February 1996, a fifth grade Los Angeles teacher and several students studied in the cafeteria while a gang dispute erupted off school grounds (Applebome). A stray bullet hit the teacher in the head. That same month, a 14 year old honor roll student, armed with a high-powered rifle and two handguns, entered a math classroom and opened fire. His actions left a teacher and two students dead. During November 1995, an angry Tennessee teenager opened fire into a crowded school hallway, killing a teacher and a student. The previous month, a South Carolina high school student shot two teachers before turning the gun on himself (Applebome).

School crime escalated to three million incidents per year (Stover, 1994). In July 1993, a survey of high school students in rural, suburban, and urban areas found: (1) eleven percent of the students had been shot at in the past year, (2) forty percent knew someone who had been killed or injured by a gun, and (3) fifteen percent of the students said they had carried a gun (Brown, 1994). Two years later, a national survey conducted by Louis Harris and Associates revealed one in eight youths reported carrying a weapon for protection (Applebome, 1996). The rate jumped to two in five in high crime

neighborhoods. One in nine youths reported skipping class or staying away from school because of fear of crime (Applebome).

The School Safety Center reported 26 violent deaths in schools by March of the 1995-96 school year (Applebome, 1996). Only 20 deaths occurred during the prior year. Since 1992, guns caused 119 of 147 violent deaths in schools. During the same time, students committed three million felonies or misdemeanor-level crimes on school grounds (Applebome).

Citing the California School Climate and Safety Survey, Morrison, Furlong, and Morrison (1994) state that 19 percent of the students believe crime is a major concern on campus. More than 50 percent of the students said fighting, vandalism, theft, and bullying occur some of the time. About 25 percent felt classmates sometimes carry weapons. Thirty percent report someone being mean grabbed or shoved them (Morrison, et al.).

Some acts of school violence lead to litigation in the courts. In 1993, a 15 year old Atlanta student died of injuries sustained when another student beat and kicked him while in the school hallway (Guthrie et al. v. Irons et al., 1993). The parents brought a wrongful death suit against a teacher, whose classroom was near the site of the attack, and the principal of the school. The Court of Appeals of Georgia held the duties of the school principal in maintaining discipline and the duties of the teacher in monitoring hallways

between class periods were discretionary in nature. Therefore, their actions were protected (Guthrie et al. v. Irons et al.).

In Randall v. Tulsa Independent School District No. 1 (1994) an injured student sued the district and an assistant principal for negligence. The student was punched in the eye subsequent to the assistant principal breaking up a fight between attackers and the student. The appellant alleged the school district failed to spend all monies available for security and failed to install surveillance cameras. The Oklahoma Court of Appeals held for the district. The court cited the provision of school security as a discretionary function which exempts schools from liability under the Governmental Tort Claims Act.

Quoting Ronald D. Stephens, executive director of the National School Safety Center, Applebome (1996) reports, "we've gone from fistfights to gunfights. Violence is no respecter of geography, or size of school, or location of demographics" (p. 12). Morrison, Furlong, & Morrison (1994) warn educators to not be misled by the focus on school violence. These authors report 89 percent of the students surveyed maintain they worry more about making good grades, being accepted by peers and getting along with family members than violence at school. The survey revealed 51 percent of the students feel safe at school while 19 percent believe crime is a major concern on campus.

Surveillance Technology

In 1978, Vestermark and Blauvelt claimed closed-circuit television (CCTV) represents the basic system within the security industry. Equipment design addresses needs of school security problems. Cameras and monitors are available in several sizes and shapes (Vestermark & Blauvelt). Surveillance cameras can be as small as a pair of dice. Cameras can pan, tilt, and zoom, as well as act like a motion detector (Hancock, Kalb, & Underhill, 1995). Monitoring occurs in three ways: (1) continuous viewing of the monitor, (2) continuous videotaping from CCTV, and (3) automatic videotaping upon activation by a motion detection camera lens (Vestermark & Blauvelt).

Kyle (1992) describes four applications of CCTV. Deterrence denotes the most common expectation. People abstain from criminal activity because CCTV increases their chance of apprehension beyond the acceptable risk taking limit. Detection, believed to be the most useful application of CCTV, amounts to an extension of the eye idea. The operator's attention span and alertness restrict its effectiveness. Reliability of the third application, identification, requires both the human head and body to fill the monitor screen. Safety, the fourth application of CCTV, stems from deterring criminal actions rather than

detecting them. If emphasized, employees usually accept CCTV. Otherwise, employees feel "snooped upon" (p. 87).

Unlike many other security systems, video surveillance cameras monitor behavior during and after school hours (Casserly, Bass, & Garrett, 1980). CCTV enables one person to monitor an entire building. The installation of video cameras around the school makes CCTV expensive to purchase (Casserly, et al.).

Stover (1994) reports the limited but increased use of security in schools. Security experts believe technology aids school security measures when integrated with a comprehensive antiviolence strategy. Stover recognizes technology appeals to school officials concerned about coping with increasing school violence. He warns not to jump on the high tech bandwagon too quickly. School boards should align technology strategies to the needs of each school. For example, video surveillance cameras may be useful in decreasing fights and vandalism. Metal detectors may be ineffective in combating acts of fighting and vandalism (Stover).

Use Outside of Schools

Geake (1993), citing Spectra Security Group president Michael Goodrich, highlights the popularity of surveillance systems in the United States. The exact number of installed cameras remains unknown. The rapid growth of video security companies, up to 130 percent in four years, indicates business is booming (Geake). CCTV businesses earned an estimated $ 2.1 billion in 1995 (Hancock, Kalb, & Underhill, 1995). The surveillance industry expects revenues to increase 62 percent by the year 2000 (Hancock et al.) The average cost of a surveillance system, $1,000, is cheaper than the cost of a burglar alarm (Geake).

Police in England employ video surveillance monitoring in more than 90 town centers (Hancock, Kalb, & Underhill, 1995). Police Superintendent Howard Perry holds the surveillance "system is like 20 officers on duty 24 hours a day who make note of everything, never take a holiday and are rarely off sick" (p. 52). Ward (1996) reports Home Secretary Howard believes video cameras represent the "technological flagship" of the British government's crackdown on crime (p. 12). The government pledged 15 million dollars to fund an additional 10,000 cameras. Describing the value of video surveillance technology, the Home Secretary writes, "Used correctly and in combination

with other crime prevention measures CCTV can help prevent crime, deter criminals, assist with detection and investigation, improve clear-up rates and increase conviction rates" (p. 12).

The information on the effects of surveillance cameras accumulates steadily (Geake, 1993). The British Police Research Group Report reveals strong support for video security. One third of the respondents agree security cameras could be used to spy on people. Only one person out of 2000 comments, "the quality of life is affected by knowing you are being watched" (p.12). Fifty-three percent of the respondents indicate CCTV makes them feel safe. Sixty-two percent feel CCTV will deter crime, while 74 percent believe it will detect crime. Installation in public places receives support from 80 percent of the respondents (Geake).

Britain's Home Ministry research study of cameras in towns finds cameras deter criminals and reduce property crime (Ward, 1996). Unclear is whether video cameras actually prevent crime or reduce crimes against persons. The researchers discover the effects of cameras fade after a period of time and some displacement of crime takes place. Criminals start to test the cameras to determine police response time. The cameras provide limited assistance in pinpointing criminals because nothing of particular use is recorded on the tapes. People's fear of crime changes little. The most frequent success in one town

comes from catching people who drop litter or who urinate in public places (Ward).

The Go-Ahead Northern Bus Company installed real cameras in two buses and dummy cameras in three other buses (Geake, 1993). The private bus company told students they installed cameras in all 60 buses. Within a 17 month period, seat slashing incidents fell by two thirds. A substantial decline in graffiti resulted in reduced bus cleaning (Geake).

Hancock, Kalb, & Underhill (1985) fear video surveillance cameras may turn into instruments of abuse. Boston's Sheraton Hotel secretly videotaped employees changing their clothing. Hotel management placed a tiny camera lens inside a pin sized hole in a personal locker. The company argued it responded to suspected employee drug use. Sheraton employees filed a suit against the company for invasion of privacy. Another suit, filed against a J.C. Penny store guard, alleged the guard used ceiling cameras to zoom in on an employee's breasts and then showed the tape to co-workers. The employee settled the suit out of court (Hancock, et al.).

Naughton (1994) asserts that, in Great Britain, people are unaware of the extent of video surveillance. People sometimes notice video cameras, but then they forget about them. Naughton finds surprising the pervasiveness of cameras in British society. More than 300 local British governments consider

or plan to introduce video surveillance. Public debate remains limited (Naughton).

In the United States, no federal regulations, state statutes, or labor laws exist to protect workers from video surveillance (Kalb, & Underhill, 1995). Naughton (1994) predicts:

> The technology will become a way of singling out those who do not belong in a particular environment and of taking preemptive action to exclude them. There will be fewer hiding places in urban society, and those who fled the twitching curtains of village life will find themselves being observed by an altogether beadier eye than that of the local postmistress. (p. 13)

Use Within Schools

The NIE Safe School Study (Casserly, Bass, and Garrett, 1980) indicates nearly one-half of the school districts in the nation used some security measure to reduce crime and vandalism. A security program mainly watches or monitors property to identify vandals and intruders. The variation comes in who or what conducts the watching. The NIE reported only 3 percent of school districts used CCTV in 1977. Most CCTV locations encompassed metropolitan

junior and senior high schools, including Alexandria, Virginia, Texarkana, Texas, and New York, New York. Little hard evidence exists to demonstrate the effectiveness of hardware security systems, including CCTV (Casserly, et al.).

Quarles (1993) reports increased use of CCTV in blind hallways, on school buses, and outside school buildings facing corners or dangerous spots. Schools in England routinely use CCTV to scan vulnerable areas or places where vandalism occurs (O'Malley, 1993). Kaufer (1994) recommends concealing bus video cameras in housings to prevent students from determining when the camera is recording. CCTV cameras should be concealed in problem areas of school buildings (Kaufer). Ringers (1996) maintains:

> Schools of today are no longer able to be supervised (from a security standpoint) by a member of the staff being stationed in the hallways during class changing periods. The problems today are those of intruders, use of drugs, thefts and holdups, carrying knives and guns, confrontations, physical violence, and even life-threatening situations. Entrances and exits to the buildings and rest rooms are best supervised by closed circuit television. (p. 7)

Townley and Martinez (1995) claim the use of surveillance technology assists administrators in providing safe campuses where students can learn

without violence. School districts experience increased costs related to vandalism and theft. Common problems include theft from lockers, stolen personal property, stolen computers, and gang graffiti. Video surveillance cameras deter defacing of property, assist with apprehension of culprits, record drug deals on film, and aid in identifying people entering and exiting campus (Townley & Martinez).

The NIE Safe School Study surveyed principals on perceptions of effectiveness of security hardware systems. Principals designated CCTV as the most reliable security device. Security systems, including CCTV, were perceived to be highly effective in reducing after hours property damage (Casserly, Bass & Garrett, 1980). Vestermark and Blauvelt (1978) assert:

> No matter what your school wide action plan turns out to be, there is one approach which has proved to be highly effective. This is the proper use of surveillance photography. All elements of a photographic surveillance plan can be conducted by school personnel . . . . (p. 189)

Ezio Crescenzi, principal of Saint Francis Xavier Secondary School, expresses the opinion that theft and vandalism disappeared, and the general behavior of students improved after school wide installation of security cameras (Gips, 1995). Crescenzi reports, " . . . our suspension rate dropped by a factor of ten" (Gips, p. 8). Discussing the video surveillance program at Dana Hills

High School, assistant principal Al Rios says, "We have to prove their child is guilty sometimes. Videotaping makes sure that innocent people aren't being punished wrongly" (The New York Times, 1996, p. A15). Dana Hills student Breana Teubner states, "More fights happen off campus after school, or they don't happen at all because kids realize that they are going to get in trouble if they fight at school" (p. A15).

Stover (1994) suggests a public outcry and parental demands for safety may pressure school boards into installing security hardware. Stover warns a hasty decision to install security hardware may meet parental demands for action, but do little to improve school safety. A district could spend hundreds of thousands of dollars without dealing with the real security issues. Peter Blauvelt, representing the National Alliance for Safe Schools, states " . . . Security is 80 percent the work of people and 20 percent the work of hardware" (p. 12). School boards must weigh the impact of a security strategy on student, faculty, and community attitudes toward the schools. While some community members applaud the board's efforts to improve safety, others will charge the board with attempting to turn schools into "high-tech prisons" (Stover, p. 13).

Examples of Schools Using Cameras

Ronald Stephens, executive director of the National School Safety Center, estimates "a growing number of schools [are] using electronic surveillance to quell student disturbances" (The New York Times, 1996, p. A15). Stephens adds, "The quickest way to break up a fight is to show up with a camera. Kids just don't want to be caught on tape" (p. A15).

Chicago Public Schools drastically reduced gang fights with the presence of 24 hour security cameras in hallways and lunchrooms (Crouch & Williams, 1995). San Diego Unified School District employs electronic surveillance extensively to protect schools in the district (Townley & Martinez, 1995). The city of Waterbury, Connecticut, proposes to mount surveillance cameras in school hallways, cafeterias, and parking lots to prevent theft and vandalism (The New York Times, 1996).

Two years ago, a Mount View High School student pulled a handgun and shot another student during class. Community outrage led to the school board's implementation of electronic surveillance technology. The school, now dubbed "Fortress Mount View," is located in the rural Appalachian coal fields of West Virginia (Stover, 1994, p. 13).

Facing theft and vandalism problems arising from evening and summer school use of the facility, Saint Francis Xavier Secondary School instituted a pilot surveillance program costing $25,000 (Gips, 1995). In late 1993, the Ontario private school installed 28 CCTV cameras in unsupervised public areas, including corridors, parking lots, and the cafeteria. The cameras transmit to an automatic recording device eliminating the need for someone to monitor them. Although challenged in court, Saint Francis Xavier prevailed. The court ruled the school met privacy requirements by posting notices at all entrances warning students of the video surveillance program (Gips).

Dana Hills High School, located in an affluent seaside community 50 miles south of Los Angeles, uses a shoulder held video camera. The device captures inappropriate student actions on video tape to provide irrefutable evidence of misconduct (The New York Times, 1996). The camera, particularly useful during lunches, pep rallies, and athletic events, catches students smoking, arguing, fighting, and skipping class (The New York Times).

McGibboney (1995), director of student relations for Dekalb County Schools, reports that the system used Georgia school safety grants to fund installation of video cameras in four junior highs and nine high schools. Cameras can be found in hallways, stairwells, and blind areas outside school buildings. The assistant principal's offices house the video monitors. School

system lawyers recommended not placing cameras in changing areas, rest rooms, or offices used for confidential conferences (McGibboney).

Surveillance Cameras on Buses

Tull (1995) reports many schools turn to video cameras as a way to address school bus misbehavior. Delaware developed a state wide policy on the use of video cameras in school buses. Components of the policy include parental notification, camera rotation, tape storage, record keeping, disciplinary process, and random viewing. Tull warns that schools need a formal policy stating what to do with the film, who may view it, and how to handle evidence to avoid litigation for violating students' rights. The video cameras cannot replace a district's code of student conduct, the authority of the bus driver, or an administrator's responsibility for discipline. As a tool, the camera aids in the overall enforcement of school rules by providing indisputable evidence of student misconduct. Other uses include monitoring drivers for safe driving practices and for compliance with student discipline policy (Tull).

San Antonio, Texas, area districts installed 60 video cameras to address bus discipline problems (Sergiovanni, 1995). Regularly reviewed video tapes provided evidence in student disciplinary actions (Sergiovanni).

Utilizing an experimental design with random assignment of bus drivers to treatment and control groups, Slavinsky (1994) discovered treatment group students demonstrated significantly fewer discipline problems during the study period. Slavinsky's study evaluated the effectiveness of video monitoring devices (VMDs) in reducing incidents of student misbehavior on middle school buses (Slavinsky).

Through statistical analysis, Slavinsky (1994) found VMDs effective on afternoon bus routes but ineffective on morning routes. A significantly lower number of discipline problems occurred in the treatment group, regardless of the day of the week. Both groups experienced a decline in the number of discipline problems as bus drivers established rapport and control. Treatment group drivers submitted a significantly lower number of referrals during each of the three 15 week data collection intervals. Students did not become desensitized to the presence of VMDs over the five month period (Slavinsky).

Slavinsky (1994) stated treatment group bus drivers rated student behavior more highly than did control group bus drivers. Discipline referrals revealed the treatment group students experienced fewer severe disciplinary problems. A test of multiple regression indicated group membership as the best predictor of the number of behavioral problems, the number of discipline

referrals submitted, and the bus driver's perception of student behavior (Slavinsky).

Legality and Privacy Rights

McCune (1994) suggests surveillance activities, including video monitoring systems, raise legal questions in most environments. McCune predicts legal precedent and current policy will facilitate use of video monitoring devices in schools. Teachers and administrators generally receive much greater leeway than police with respect to privacy laws (McCune). Townley and Martinez (1995) advise school districts to establish safeguards to ensure privacy and protection of legal rights. Ann Bradley, spokesperson for the Southern California Chapter of the American Civil Liberties Union believes, "Video monitoring is legal . . . as long as those being taped are aware of it" (The New York Times, 1996, p. A15).

Essentially, the entire topic of search and seizure, including privacy, remains a federal issue controlled by the Fourth Amendment of the United States Constitution (Dougherty, 1993). The Fourth Amendment of the Constitution of the United States provides:

> The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized. (United States Constitution, Amendment IV)

Dougherty (1993) maintains that the constitutional right to be free from unreasonable searches applies to minors. School officials, as agents of the government, must adhere to the Fourth Amendment's restrictions on unreasonable searches. They must weigh the privacy interests of students with the substantial need to maintain a safe and orderly environment (Dougherty). Goger (1973) points out that most cases involving searches in schools deal with the court admissibility of evidence seized. They do not directly concern the enforcement of school discipline. However, it is possible that acts of school personnel may violate the civil rights of students and create liabilities for school officials. Officials may be held liable for illegal searches of students where not protected by good faith immunity defense (Goger).

Schreck (1991) explains that the constitutional mandate placed on law enforcement officials requiring probable cause for a search is not generally necessary in searches by school personnel. A lesser standard, reasonable

suspicion, prevails as the test for most school searches. In assessing sufficiency of cause to conduct a search, courts consider such factors as the source of the information prompting the search, the student's school and criminal record, the seriousness and prevalence of the problem being addressed, and the exigency of the search. Age of the student and degree of intrusiveness of the search itself are other significant factors in determining the legality of a search (Schreck).

In New Jersey v. T. L. O. (1985) the United States Supreme Court, ruling on school searches, issued an opinion in which the court adopted the two-prong standard of "reasonableness under all the circumstances" of warrantless searches. The court held the Fourth Amendment's prohibition on unreasonable searches and seizures applied to searches conducted by public school officials (New Jersey v. T. L. O).

Writing for the majority, Justice White argues that determining reasonableness involves a twofold inquiry. First, identify justification for the search at its inception. Second, assess the reasonableness of the conducted search as related in scope to the circumstances which justified the interference in the first place. Under ordinary circumstances a search will reveal evidence that the student violated a school rule or law. A search would be permissible in its scope when adopted measures reasonably relate to the objectives of the search and do not excessively intrude in view of the sex of the student and the

nature of the infraction. Sufficient probability gauges reasonableness (New Jersey v. T. L. O., 1985).

Schreck (1991) points out the Court in T. L. O. refused to decide two important issues not raised by the facts of the case. First, whether individualized suspicion comprises an essential element of the reasonableness standard required for school searches. Second, whether the exclusionary rule constitutes the appropriate remedy for violations of the Fourth Amendment by school officials (Schreck).

Greenfield (1991) argues the Fourth Amendment provides the only protection an individual holds against the intrusive power of electronic video surveillance (EVS). The government's power to infringe on privacy increased significantly with advancements in EVS technology. " EVS is one of the most intimidating weapons . . . because it can substitute for the eyes of . . . officials in places where it would be impossible for them to be physically present" (p. 1047).

The Fourth Amendment applies if electronic surveillance intrudes upon a person's reasonable expectation of privacy (Schreck, 1991). Schreck suggests schools might be permitted to employ electronic video surveillance devices in areas where no legitimate expectation of privacy exists. Monitoring publicly visual conduct in school hallways may not be considered an intrusion of

students' reasonable expectation of privacy and therefore may not be interpreted as a search. Electronic surveillance of areas where students have reason to expect privacy must satisfy Fourth Amendment requirements (Schreck). Greenfield (1991) provides:

> When officials use EVS in nonpublic areas and without the consent of a person present, the surveillance constitutes a search in most cases. Generally, EVS "discloses intimate associations, objects or activities otherwise imperceptible," and would constitute a search if placed in any of a number of places. These would include homes, offices, . . . and rest room stalls in public washrooms. Exceptions would be limited to those places where people would not have a legitimate expectation of visual privacy. (p. 1057)

Summary

The security industry grew with the national increase in crime and vandalism (Ban & Ciminillo, 1977). Within the past two decades, increased school violence and vandalism led to adoption of security measures, including the employment of video surveillance technology (Ban & Ciminillo). Many students concurred with the notion that school related incidents rose sharply

(Morrison, Furlong, & Morrison, 1994). Surveillance technology may enable administrators to provide safe campuses where students can learn without violence (Townley & Martinez, 1995).

In Britain, more than 300 local governments are considering implementation of video surveillance programs (Naughton, 1994). The Home Ministry's research finds video surveillance cameras located in town centers deter criminals and reduce property crime (Ward, 1996). Whether video cameras actually prevent crime remains unclear (Ward). Slavinsky's (1994) study of VMDs on buses reveals a significantly lower number of behavior problems occur in the treatment group. VMDs appear effective in reducing student discipline problems on afternoon routes but ineffective on morning routes (Slavinsky).

School use of video surveillance technology continues to climb (Stover, 1994). Surveillance cameras can be found in hallways, in cafeterias, on school buses, and facing parking lots (Quarles, 1993). Districts report the presence of security cameras drastically reduce gang fights (Crouch & Williams, 1995), theft, and vandalism (Gips, 1995). As a security tool, video cameras assist in the enforcement of school rules by providing indisputable evidence of student misconduct (Tull, 1995).

Surveillance activities raise legal questions in most environments (McCune, 1994). The Fourth Amendment protection regarding the right to be free from unreasonable searches applies to students (Dougherty, 1993). Video surveillance monitoring becomes a search if the activity intrudes upon a student's reasonable expectation of privacy (Schreck, 1991). As agents of the government, public schools must exercise caution (Dougherty). Officials must weigh the privacy rights of students with the need to maintain a safe and orderly campus (Dougherty). The Constitution may permit employment of surveillance cameras in school areas where students would have no legitimate expectation of privacy, including hallways, cafeterias, parking lots, and buses (Schreck).

CHAPTER III

METHODS AND PROCEDURES

Introduction

During the spring of 1995, a middle school planning council sought funding for installation of video surveillance cameras in school hallways. Representatives of the Planning Council requested money from the school's Parent Teacher Association (PTA) to fund the purchase of required equipment. Due to equipment costs, the PTA agreed to purchase only five video cameras, five monitors, and one video recorder. The PTA and the school agreed to install the cameras in areas believed to be unsafe and difficult to monitor.

This chapter describes the methods and procedures used to evaluate the effect of video camera surveillance on the attitudes of students, parents, and teachers. Research methodology topics include a description of the population, instrumentation, data gathering procedures, and methods of statistical analysis.

Description of Population

The population in this study encompasses the 1350 students, 89 teachers, and over 1350 parents of School A. Additionally, the population includes the

1340 students of School B. Being similar sized schools, School A and School B serve comparable communities. Both suburban schools possess some urban school characteristics. The schools utilize an interdisciplinary and team approach to teaching. School A and School B serve students in grades six through eight utilizing the school within a school concept. Table 1 contains school profile information.

Thirty-two homeroom classes, sixteen in each school, were randomly chosen to participate in the student survey. Using grade level lists of homerooms, the researcher selected every third homeroom on each list. At both schools, the computer software program titled School System Scheduler randomly assigned students to their homerooms. The researcher believed sampling by homeroom classes ensured greater student participation and facilitated data collection. Homeroom sampling required training of fewer teachers, permitted entire classes to participate, and reduced the number of students present in class but not participating in the survey.

Teachers of selected homerooms distributed participation consent forms to their students (see Appendix A). Students were directed to take consent forms home and return them signed by their parent. Consent agreement forms explained the purpose of the study, described data collection procedures, and indicated participation was voluntary and risk free. Additionally, the School A

Table 1

School Profiles

Indicator	School A	School B
Site Size	25.0 Acres	25.0 Acres
Design Capacity	1400 students	1400 students
Program Capacity	1202 students	1080 students
Portable Classrooms	13	16
Average Class Size:		
Language Arts	23.7	24.8
Mathematics	23.5	24.5
Social Studies	24.7	26.0
Science	25.1	25.3
Administrative Staff	4	4
Teaching Staff	100	101
Classified Staff	47	55

Table 1 continued

Indicator	School A	School B
Caucasian Staff	112	132
Non-caucasian Staff	39	28
Graduate Degrees	41.0 %	43.5 %
Avg. Years Teaching	11.7	12.8
Total Students	1336	1420
Caucasian Students	817	1081
Non-caucasian Students	519	339
Free/Reduced Meals	39.6 %	24.3 %
Mobility Index	30.0 %	25.0 %
Avg. Daily Attendance	94.19 %	94.98 %
Special Education	12.8 %	14.7 %

Source: School Profiles. (1995, Vol. 3). Virginia Beach City Public Schools: Educational Planning Center.

parents volunteered to participate in the survey by submission of written informed consent (see Appendix A). The student sample consisted of those students who returned a signed consent form. Approximately 13 percent of each student body, 175 School A students and 174 School B students, completed a direct questionnaire administered by their homeroom teacher during the regularly scheduled advisory period (see Appendix B). The researcher distributed questionnaires to School A parents who indicated their desire to participate in the study (see Appendix A & B). The parent sample contained 110 School A parents. Eighty-nine School A teachers consented to participation and completed a directly administered questionnaire during a scheduled faculty meeting (see Appendix A & Appendix B).

Instrumentation

The development of a short questionnaire facilitated data gathering concerning student, parent, and teacher attitudes toward video surveillance monitoring. The instrument design provided a general feeling about hallway video surveillance monitoring. The researcher directed respondents to participate in the survey in response to the school administrations' need to assess the video surveillance program at School A.

The researcher developed questionnaire items, specific to the needs of this study. The questionnaire consisted of brief, specific, and clear items. The instrument incorporated structured questions, rather than open-ended questions. This format encouraged participants to respond to the items because structured responses required less time to complete. The researcher utilized a Likert scale because of its easy construction, its moderate reliability, its ability to explore associated areas of an attitude, and its moderately easy scoring (Udinsky, Osterland, & Lynch, 1981).

In order to validate the questionnaire, the researcher reviewed examples of attitude surveys to assist with question development. In addition, educators interested in attitudes toward school safety and video surveillance monitoring provided advice. A gifted resource teacher, three grade level teachers, one remedial specialist, and one reading specialist were asked to provide feedback to the following questions:

1. Are the directions of the survey clearly stated?
2. Are the questions clearly worded?
3. Are the questions written on an appropriate reading level for the target population?
4. Are the questions too restrictive, limited or narrow in scope?

5. Are the questions designed to answer the research questions of the study?

The researcher analyzed the feedback and made revisions where necessary.

Data Gathering Procedures

Selected students from each school took home parental consent forms to obtain permission for student participation in this study. Those students who returned signed consent forms comprised the student sample.

The sample student body of each school completed the survey during the scheduled advisory period. Teachers of participating students read the directions to their students. Teachers distributed and collected questionnaires, excluding absent students from the data count (see Appendix C). Student respondents remained anonymous and free from risk.

School A parents who indicated their own willingness to participate in the study comprised the parent sample. School A students took coded questionnaires home to their parents. After ten days, a duplicate copy of the survey was mailed through the United States Postal Service to nonrespondents with a return envelope enclosed. For questionnaires unreturned after 20 days, a reminder notice followed the previous distributions (see Appendix D).

Seventy-one School A parents returned mail questionnaires. The researcher conducted evening telephone calls to the homes of the 39 non-respondents, successfully completing 25 additional surveys by telephone. Ninety-six School A parents participated in the video surveillance monitoring survey. Parent respondents remained free from risk and their responses remained confidential.

The researcher administered teacher questionnaires during a scheduled faculty meeting, excluding absent teachers from the data count. The 89 teacher respondents remained anonymous and free from risk.

Methods of Statistical Analysis

Participants used number 2 lead pencils to record responses on Trans-Optic (National Computer Systems) data sheets. Returned questionnaires were examined for completeness. The researcher discarded one School B student questionnaire because one part was substantially incomplete. All other returned questionnaires were judged to be complete.

Participants' response sheets were scanned to calculate response percentages. The Microtest Survey (National Computer Systems) software program generated cross tabulation data. The Statistical Program for the Social

Sciences (SPSS) 6.1 Base System provided chi-square comparison analysis between School A student responses and School B student responses.

Data analysis consisted of determining the frequencies of each response and percentage of respondents who gave each response in the five point response categories. Converting numbers to percentages facilitated reporting the proportion of respondents selecting each response category. Table shells, or cross tabulations, illustrated the relationship among the variables on the survey.

Comparisons of responses from the two schools determined whether differences existed in attitudes toward video surveillance monitoring. The Pearson chi-square test was used to determine if a significant relationship exists between two variables, school of attendance and response to a survey statement. Does a reason exist to believe that School A students respond differently from School B students on statements concerning behavior, safety, and privacy? Will the school of attendance make a difference in students' attitudes towards video surveillance monitoring?

CHAPTER IV

RESULTS AND DISCUSSION

Introduction

Chapter Four describes the data derived from the survey of School A students, of School B students, of School A parents, and of School A teachers. The first section provides a description of the respondents. Section two presents the research questions in numerical order. Eight subsections follow each research question. Findings from student responses are presented in this order: Cross tabulation by grade level for School A students, by grade level for School B students, by gender for School A students, and by gender for School B students. Presented next are comparisons and tests of independence for School A and for School B students. The final subsections present data derived from cross tabulation by gender for School A parents and cross tabulation by gender for School A teachers. The last section of Chapter IV provides a summary of the data analysis.

Description of Respondents

The personal characteristics reported by respondents are displayed in Table 2, Table 3, Table 4, and Table 5. Table 2 depicts the distribution of School A student respondents by grade level and by gender. School A utilizes video surveillance monitoring in school hallways. Personal data for School A students indicated 43.4 percent sixth grade students, 33.1 percent seventh grade students, and 23.4 percent eighth grade students completed questionnaires. School A participants are 50.2 percent male and 49.7 percent female. The researcher declined to report personal data relating to School A students' discipline and academic performance after observation revealed no variation in student responses.

Table 3 depicts the distribution of School B student respondents by grade level and by gender. School B does not employ video surveillance monitoring in school hallways. Personal data for School B students indicated 41.0 percent sixth grade students, 23.1 percent seventh grade students, and 35.8 percent eighth grade students completed questionnaires. School B participants are 43.7 percent male and 56.3 percent female. The researcher declined to report personal data related to School B students' discipline and academic behavior after observation revealed no variation in student responses.

Table 2

Distribution of Personal Characteristics Identified by School A Students

Characteristics	Frequency	Percentage (N = 175)
A. Grade Level		
6	76	43.4
7	58	33.1
8	41	23.4
B. Gender		
Male	88	50.2
Female	87	49.7

Note: School A employs VSCs

Table 3

Distribution of Personal Characteristics Identified by School B Students

Characteristics	Frequency	Percentage (N = 174)
A. Grade Level		
6	71	41.0
7	40	23.1
8	62	35.8
B. Gender		
Male	76	43.7
Female	98	56.3

Note: School B does not employ VSCs

The distribution of School A parents by gender is reported in Table 4. School A parent respondents included 30.2 percent males and 69.7 percent females. Table 5 depicts personal characteristics identified by School A teachers. School A teacher respondents included 31.5 percent males and 68.5 percent females.

Table 4

Distribution of Personal Characteristics Identified by School A Parents

Characteristics	Frequency	Percentage (N=96)
A. Gender		
Male	29	30.2
Female	67	69.7

Note: School A employs VSCs

Table 5

Distribution of Personal Characteristics Identified by School A Teachers

Characteristics	Frequency	Percentage (N= 89)
A. Gender		
Male	28	31.5
Female	61	68.5

Note: School A employs VSCs

Findings and Analysis

This research reveals the effect of video surveillance cameras on the attitudes of students, parents, and teachers toward student behavior, school safety, and feelings of privacy. Demographic variables include student grade level, student gender, parent gender, and teacher gender.

Research question number one: Do video surveillance cameras effect perceptions of student behavior?

The School A student questionnaire required students to respond to four statements regarding student behavior. Responses are reported by percentage of respondents. School A employs video surveillance cameras in hallways.

School A Students - Grade Level Cross Tabulation

Table 6 depicts cross tabulation of data by grade level for School A students. Statement number one: Students are well behaved when in the hallways of our school. Approximately 55 percent of School A students either always agreed or sometimes agreed with statement number one, whereas approximately 43 percent either seldom agreed or never agreed. The remaining 1.7 percent of School A students indicated being not sure.

Table 6

Cross Tabulation of VSCs Effect on Perceptions of Student Behavior by Grade Level for School A Students (percentages)

Effect on Perceptions of Student Behavior		Always	Sometimes	Seldom	Never	Not Sure
Students are well behaved when in the hallways of our school.						
TOTAL	N = 175	5.7	49.1	32.6	10.9	1.7
Grade 6	N = 76	3.9	47.4	30.3	14.5	3.9
Grade 7	N = 58	5.2	46.6	36.2	12.1	0.0
Grade 8	N = 41	9.8	58.5	29.3	2.4	0.0
Students behave better in hallways monitored by video surveillance cameras.						
TOTAL	N = 175	5.7	37.9	14.9	28.7	12.6
Grade 6	N = 76	9.2	42.1	11.8	25.0	11.8
Grade 7	N = 58	3.4	44.8	12.1	27.6	12.1
Grade 8	N = 41	2.5	20.0	25.0	37.5	15.0
Students are prevented from misbehaving by video surveillance cameras.						
TOTAL	N = 175	3.5	29.5	30.1	20.8	16.2
Grade 6	N = 76	4.0	37.3	22.7	20.0	16.0
Grade 7	N = 58	3.5	28.1	29.8	19.3	19.3
Grade 8	N = 41	2.4	17.1	43.9	24.4	12.2

Table 6 continued

Effect on Perceptions of Student Behavior		Always	Sometimes	Seldom	Never	Not Sure
I behave better while being monitored by the video surveillance cameras.						
TOTAL	N = 175	35.4	22.3	14.9	20.6	6.9
Grade 6	N = 76	44.7	15.8	14.5	21.1	3.9
Grade 7	N = 58	39.7	24.1	8.6	19.0	8.6
Grade 8	N = 41	12.2	31.7	24.4	22.0	9.8

Note: School A employs VSCs

The Grade 8 students possessed the highest percentage of agreement with 68.3 percent, whereas 31.7 percent indicated disagreement. Grade 7 students indicated 51.8 percent agreement and 48.3 percent disagreement. Grade 6 School A students indicated 51.3 percent agreement and 44.8 percent disagreement.

Statement number two: Students behave better in hallways monitored by video surveillance cameras. Approximately 44 percent of School A students either always agreed or sometimes agreed with statement number two, whereas approximately 44 percent either seldom agreed or never agreed. The remaining 12.6 percent of School A students indicated being not sure. The Grade 6 students possessed the highest percentage of agreement with 51.3 percent, whereas 36.8 percent indicated disagreement. Grade 7 students indicated 48.2 percent agreement and 39.7 percent disagreement. Grade 8 School A students indicated 22.5 percent agreement and 62.5 percent disagreement.

Statement number three: Students are prevented from misbehaving by video surveillance cameras. Thirty-three percent of School A students either always agreed or sometimes agreed with statement number three, whereas approximately 51 percent either seldom agreed or never agreed. The remaining 16.2 percent of School A students indicated being not sure. The Grade 6 students possessed the highest percentage of agreement with 41.3 percent,

whereas 42.7 percent indicated disagreement. Grade 7 students indicated 31.6 percent agreement and 49.1 percent disagreement. Grade 8 School A students indicated 19.5 percent agreement and 68.3 percent disagreement.

Statement number four: I behave better while being monitored by the video surveillance cameras. Approximately 58 percent of School A students either always agreed or sometimes agreed with statement number four, whereas approximately 35 percent either seldom agreed or never agreed. The remaining 6.9 percent of School A students indicated being not sure. The Grade 7 students possessed the highest percentage of agreement with 63.8 percent, whereas 27.6 percent indicated disagreement. Grade 6 students indicated 60.5 percent agreement and 35.6 percent disagreement. Grade 8 School A students indicated 43.9 percent agreement and 46.4 percent disagreement.

School B Students - Grade Level Cross Tabulation

The School B student questionnaire required students to respond to four statements regarding student behavior. Responses are reported by percentage of respondents. School B does not employ video surveillance cameras in hallways. Table 7 depicts cross tabulation of data by grade level for School B students.

Table 7

Cross Tabulation of VSCs Effect on Perceptions of Student Behavior by Grade Level for School B Students (percentages)

Effect on Perceptions of Student Behavior		Always	Sometimes	Seldom	Never	Not Sure
Students are well behaved when in the hallways of our school.						
TOTAL	N = 173	7.5	62.6	20.7	4.0	5.2
Grade 6	N = 71	11.3	64.8	16.9	1.4	5.6
Grade 7	N = 40	7.5	50.0	30.0	7.5	5.0
Grade 8	N = 62	3.2	69.4	17.7	4.8	4.8
Students would behave better in hallways monitored by video surveillance cameras.						
TOTAL	N = 173	19.0	31.6	13.8	19.5	16.1
Grade 6	N = 71	22.5	28.2	11.3	21.1	16.9
Grade 7	N = 40	17.5	32.5	15.0	17.5	17.5
Grade 8	N = 62	16.1	35.5	16.1	17.7	14.5
Students would be prevented from misbehaving by video surveillance cameras.						
TOTAL	N = 173	12.1	29.3	20.1	19.5	19.0
Grade 6	N = 71	9.9	28.2	12.7	23.9	25.4
Grade 7	N = 40	20.0	20.0	30.0	12.5	17.5
Grade 8	N = 62	9.7	37.1	22.6	17.7	12.9

Table 7 continued

Effect on Perceptions of Student Behavior		Always	Sometimes	Seldom	Never	Not Sure
I would behave better while being monitored by the video surveillance cameras.						
TOTAL	N = 173	44.3	24.7	8.6	20.1	2.3
Grade 6	N = 71	52.1	14.1	5.6	25.4	2.8
Grade 7	N = 40	45.0	25.0	12.5	15.0	2.5
Grade 8	N = 62	35.5	37.1	9.7	16.1	1.6

Note: School B does not employ VSCs

Statement number one: Students are well behaved when in the hallways of our school. Approximately 70 percent of School B students either always agreed or sometimes agreed with statement number one, whereas approximately 25 percent either seldom agreed or never agreed. The remaining 5.2 percent of School B students indicated being not sure. The Grade 6 students possessed the highest percentage of agreement with 76.1 percent, whereas 18.3 percent indicated disagreement. Grade 8 students indicated 72.6 percent agreement and 22.5 percent disagreement. Grade 7 School B students indicated 57.5 percent agreement and 37.5 percent disagreement.

Statement number two: Students would behave better in hallways monitored by video surveillance cameras. Approximately 50 percent of School B students either always agreed or sometimes agreed with statement number two, whereas approximately 33 percent either seldom agreed or never agreed. The remaining 16.1 percent of School B students indicated being not sure. The Grade 8 students possessed the highest percentage of agreement with 51.6 percent, whereas 33.8 percent indicated disagreement. Grade 6 students indicated 50.7 percent agreement and 32.4 percent disagreement. Grade 7 School B students indicated 50.0 percent agreement and 32.5 percent disagreement.

Statement number three: Students would be prevented from misbehaving by video surveillance cameras. Approximately 41 percent of School B students either always agreed or sometimes agreed with statement number three, whereas approximately 40 percent either seldom agreed or never agreed. The remaining 19.0 percent of School B students indicated being not sure. The Grade 8 students possessed the highest percentage of agreement with 46.8 percent, whereas 40.3 percent indicated disagreement. Grade 7 students indicated 40.0 percent agreement and 42.5 percent disagreement. Grade 6 School B students indicated 38.1 percent agreement and 36.6 percent disagreement.

Statement number four: I would behave better while being monitored by the video surveillance cameras. Sixty-nine percent of School B students either always agreed or sometimes agreed with statement number four, whereas approximately 29 percent either seldom agreed or never agreed. The remaining 2.3 percent of School B students indicated being not sure. The Grade 8 students possessed the highest percentage of agreement with 72.6 percent, whereas 25.8 percent indicated disagreement. Grade 7 students indicated 70.0 percent agreement and 27.5 percent disagreement. Grade 6 School B students indicated 66.2 percent agreement and 31.0 percent disagreement.

School A Students - Gender Cross Tabulation

Table 8 depicts cross tabulation of data by gender for School A students. School A employs video surveillance cameras in hallways.

Statement number one: Students are well behaved when in the hallways. The female School A students possessed the highest percentage of agreement with 58.6 percent, whereas 41.4 percent indicated disagreement. Male students indicated 51.2 percent agreement and 45.5 percent disagreement.

Statement number two: Students behave better in hallways monitored by video surveillance cameras. The male School A students possessed the highest percentage of agreement with 46.6 percent, whereas 44.4 percent indicated disagreement. Female students indicated 40.7 percent agreement and 43.0 percent disagreement.

Statement number three: Students are prevented from misbehaving by video surveillance cameras. The male School A students possessed the highest percentage of agreement with 33.3 percent, whereas 49.4 percent indicated disagreement. Female students indicated 32.6 percent agreement and 52.4 percent disagreement.

Statement number four: I behave better while being monitored by the video surveillance cameras. The female School A students possessed the highest percentage of agreement with 58.6 percent, whereas 33.3 percent

Table 8

Cross Tabulation of VSCs Effect on Perceptions of Student Behavior by Gender for School A Students (percentages)

Effect on Perceptions of Student Behavior		Always	Sometimes	Seldom	Never	Not Sure
Students are well behaved when in the hallways.						
TOTAL	N = 175	5.7	49.1	32.6	10.9	1.7
Male	N = 88	5.7	45.5	33.0	12.5	3.4
Female	N = 87	5.7	52.9	32.2	9.2	0.0
Students behave better in hallways monitored by video surveillance cameras.						
TOTAL	N = 175	5.7	37.9	14.9	28.7	12.6
Male	N = 88	9.1	37.5	11.4	33.0	9.1
Female	N = 87	2.3	38.4	18.6	24.4	16.3
Students are prevented from misbehaving by video surveillance cameras.						
TOTAL	N = 175	3.5	29.5	30.1	20.8	16.2
Male	N = 88	3.4	29.9	31.0	18.4	17.2
Female	N = 87	3.5	29.1	29.1	23.3	15.1
I behave better while being monitored by the video surveillance cameras.						
TOTAL	N = 175	35.4	22.3	14.9	20.6	6.9
Male	N = 88	34.1	22.7	12.5	25.0	5.7
Female	N = 87	36.8	21.8	17.2	16.1	8.0

Note: School A employs VSCs

indicated disagreement. Male students indicated 56.8 percent agreement and 37.5 percent disagreement.

School B Students - Gender Cross Tabulation

Table 9 depicts cross tabulation of data by gender for School B students. School B does not employ video surveillance cameras in hallways.

Statement number one: Students are well behaved when in the hallways. The female School B students possessed the highest percentage of agreement with 73.5 percent, whereas 22.5 percent indicated disagreement. Male students indicated 65.7 percent agreement and 27.6 percent disagreement.

Statement number two: Students would behave better in hallways monitored by video surveillance cameras. The male School B students possessed the highest percentage of agreement with 56.6 percent, whereas 35.5 percent indicated disagreement. Female students indicated 45.9 percent agreement and 31.6 percent disagreement.

Statement number three: Students would be prevented from misbehaving by video surveillance cameras. The male School B students possessed the highest percentage of agreement with 51.3 percent, whereas 35.6 percent indicated disagreement. Female students indicated 33.6 percent agreement and 42.5 percent disagreement.

Table 9

Cross Tabulation of VSCs Effect on Perceptions of Student Behavior by Gender for School B Students (percentages)

Effect on Perceptions of Student Behavior		Always	Sometimes	Seldom	Never	Not Sure
Students are well behaved when in the hallways.						
TOTAL	N = 174	7.5	62.6	20.7	4.0	5.2
Male	N = 76	3.9	61.8	23.7	3.9	6.6
Female	N = 98	10.2	63.3	18.4	4.1	4.1
Students would behave better in hallways monitored by video surveillance cameras.						
TOTAL	N = 174	19.0	31.6	13.8	19.5	16.1
Male	N = 76	18.4	38.2	15.8	19.7	7.9
Female	N = 98	19.4	26.5	12.2	19.4	22.4
Students would be prevented from misbehaving by video surveillance cameras.						
TOTAL	N = 174	12.1	29.3	20.1	19.5	19.0
Male	N = 76	18.4	32.9	14.5	21.1	13.2
Female	N = 98	7.1	26.5	24.5	18.4	23.5
I would behave better while being monitored by the video surveillance cameras.						
TOTAL	N = 174	44.3	24.7	8.6	20.1	2.3
Male	N = 76	39.5	30.3	9.2	19.7	1.3
Female	N = 98	48.0	20.4	8.2	20.4	3.1

Note: School B does not employ VSCs

Statement number four: I would behave better while being monitored by video surveillance cameras. The male School B students possessed the highest percentage of agreement with 69.8 percent, whereas 28.9 percent indicated disagreement. Female students indicated 68.4 percent agreement and 28.6 percent disagreement.

Comparison of School A and School B Students

Table 10 depicts cross tabulation of VSCs effect on perceptions of student behavior by grade level for both School A students and School B students. Table 11 depicts cross tabulation of VSCs effect on perceptions of student behavior by gender for both School A students and School B students.

Table 10

Cross Tabulation of VSCs Effect on Perceptions of Student Behavior by Grade Level for School A Students and School B Students (percentages)

EFFECT ON PERCEPTIONS OF STUDENT BEHAVIOR	ALWAYS		SOMETIMES		SELDOM		NEVER		NOT SURE	
SCHOOL	A	B	A	B	A	B	A	B	A	B
Students are well behaved when in the hallways of our school.										
Grade 6	3.9	11.3	47.4	64.8	30.3	16.9	14.5	1.4	3.9	5.6
Grade 7	5.2	7.5	46.6	50.0	36.2	30.0	12.1	7.5	0.0	5.0
Grade 8	9.8	3.2	58.5	69.4	29.3	17.7	2.4	4.8	0.0	4.8
Students [*would*] behave better in hallways monitored by video surveillance cameras.										
Grade 6	9.2	22.5	42.1	28.2	11.8	11.3	25.0	21.1	11.8	16.9
Grade 7	3.4	17.5	44.8	32.5	12.1	15.0	27.6	17.5	12.1	17.5
Grade 8	2.5	16.1	20.0	35.5	25.0	16.1	37.5	17.7	15.0	14.5
Students are [*would be*] prevented from misbehaving by video surveillance cameras.										
Grade 6	4.0	9.9	37.3	28.2	22.7	12.7	20.0	23.9	16.0	25.4
Grade 7	3.5	20.0	28.1	20.0	29.8	30.0	19.3	12.5	19.3	17.5
Grade 8	2.4	9.7	17.1	37.1	43.9	22.6	24.4	17.7	12.2	12.9

Table 10 continued

EFFECT ON PERCEPTIONS OF STUDENT BEHAVIOR	ALWAYS		SOMETIMES		SELDOM		NEVER		NOT SURE	
SCHOOL	A	B	A	B	A	B	A	B	A	B
I [*would*] behave better while being monitored by the video surveillance cameras.										
Grade 6	44.7	52.1	15.8	14.1	14.5	5.6	21.1	25.4	3.9	2.8
Grade 7	39.7	45.0	24.1	25.0	8.6	12.5	19.0	15.0	8.6	2.5
Grade 8	12.2	35.5	31.7	37.1	24.4	9.7	22.0	16.1	9.8	1.6

Note: School A employs VSCs
School B does not employ VSCs

Table 11

Cross Tabulation of VSCs Effect on Perceptions of Student Behavior by Gender for School A Students and School B Students (percentages)

EFFECT ON PERCEPTIONS OF STUDENT BEHAVIOR	ALWAYS		SOMETIMES		SELDOM		NEVER		NOT SURE	
SCHOOL	A	B	A	B	A	B	A	B	A	B
Students are well behaved when in the hallways of our school.										
Male	5.7	3.9	45.5	61.8	33.0	23.7	12.5	3.9	3.4	6.6
Female	5.7	10.2	52.9	63.3	32.2	18.4	9.2	4.1	0.0	4.1
Students [*would*] behave better in hallways monitored by video surveillance cameras.										
Male	9.1	18.4	37.5	38.2	11.4	15.8	33.0	19.7	9.1	7.9
Female	2.3	19.4	38.4	26.5	18.6	12.2	24.4	19.4	16.3	22.4
Students are [*would be*] prevented from misbehaving by video surveillance cameras.										
Male	3.4	18.4	29.9	32.9	31.0	14.5	18.4	21.1	17.2	13.2
Female	3.5	7.1	29.1	26.5	29.1	24.5	23.3	18.4	15.1	23.5

Table 11 continued

EFFECT ON PERCEPTIONS OF STUDENT BEHAVIOR	ALWAYS		SOMETIMES		SELDOM		NEVER		NOT SURE	
SCHOOL	A	B	A	B	A	B	A	B	A	B
I [*would*] behave better while being monitored by the video surveillance cameras.										
Male	34.1	39.5	22.7	30.3	12.5	9.2	25.0	19.7	5.7	1.3
Female	36.8	48.0	21.8	20.4	17.2	8.2	16.1	20.4	8.0	3.1

Note: School A employs VSCs
School B does not employ VSCs

Test of Independence for School A and School B Students

The hypothesis that two variables in a cross tabulation are independent of each other is of interest to this researcher. The Pearson Chi-Square test was used to determine if any reason exists to believe that School A students respond differently from School B students on statements concerning student behavior. In other words, does the school of attendance make a difference in respondents' attitudes toward student behavior?

Statement number one: Students are well behaved when in the hallways of our school. The Pearson chi-square value equals 17.38588. The observed significance level for a chi-square of 17.38588, with four degrees of freedom, is .0016. Chances are less than one in 1,000 that the variables are independent in the population. Differences between observed frequencies and expected frequencies are beyond what could occur by chance alone at the .01 level of significance. Reject the null hypothesis of independence at the .01 level. The researcher concludes that a significant relationship exists between school of attendance and attitudes toward behavior in hallways (see Table 12).

Statement number two: Students [*would*] behave better in hallways monitored by video surveillance cameras. The Pearson chi-square value equals 18.03374. The observed significance level for a chi-square of 18.03374, with

Table 12

Contingency Table for School of Attendance and Student Behavior - Statement Number One

Students are well behaved when in the hallways of our school.

Count Expected Residual	Always	Some-times	Seldom	Never	Not Sure	Row Total
School A	10 11.4 -1.4	85 96.4 -11.4	57 46.2 10.8	18 12.4 5.6	2 5.5 -3.5	172 49.7%
School B	13 11.6 1.4	109 97.6 11.4	36 46.8 -10.8	7 12.6 -5.6	9 5.5 3.5	174 50.3%
Column Total	23 6.6%	194 56.1%	93 26.9%	25 7.2%	11 3.2%	346 100.0%

Chi-Square	Value	df	Significance
Pearson	17.38588	4	.0016 *

* significant at the .01 level

Note: School A employs VSCs
School B does not employ VSCs

four degrees of freedom, is .0012. Chances are less than one in 1,000 that the variables are independent in the population. Differences between observed frequencies and expected frequencies are beyond what could occur by chance alone at the .01 level of significance. Reject the null hypothesis of independence at the .01 level. The researcher concludes that a significant relationship exists between school of attendance and attitudes toward behavior in hallways monitored by VSCs (see Table 13).

Statement number three: Students are [*would be*] prevented from misbehaving by video surveillance cameras. The Pearson chi-square value equals 11.69938. The observed significance level for a chi-square of 11.69938, with four degrees of freedom, is .0197. Chances are less than 19 in 1,000 that the variables are independent in the population. Differences between observed frequencies and expected frequencies are beyond what could occur by chance alone at the .05 level of significance. Reject the null hypothesis of independence at the .05 level. The researcher concludes that a significant relationship exists between school of attendance and attitudes toward VSCs preventing misbehavior (see Table 14).

Statement number four: I [*would*] behave better while being monitored by the video surveillance cameras. The Pearson chi-square value equals

Table 13

Contingency Table for School of Attendance and Student Behavior - Statement Number Two

Students [*would*] behave better in hallways monitored by video surveillance cameras.

Count Expected Residual	**Always**	**Some-times**	**Seldom**	**Never**	**Not Sure**	Row Total
School A	9 20.8 -11.8	65 59.5 5.5	26 24.8 1.2	49 41.1 7.9	22 24.8 -2.8	171 49.6%
School B	33 21.2 11.8	55 60.5 -5.5	24 25.2 -1.2	34 41.9 -7.9	28 25.2 2.8	174 50.4%
Column Total	42 12.2%	120 34.8%	50 14.5%	83 24.1%	50 14.5%	345 100.0%

Chi-Square	**Value**	**df**	**Significance**
Pearson	18.03374	4	.0012 *

* significant at the .01 level

Note: School A employs VSCs
School B does not employ VSCs

Table 14

Contingency Table for School of Attendance and Student Behavior - Statement Number Three

Students are [*would be*] prevented from misbehaving by video surveillance cameras.

Count Expected Residual	**Always**	**Some-times**	**Seldom**	**Never**	**Not Sure**	Row Total
School A	6 13.3 -7.3	50 49.9 .1	51 42.5 8.5	35 34.1 .9	28 30.1 -2.1	170 49.4%
School B	21 13.7 7.3	51 51.1 -.1	35 43.5 -8.5	34 34.9 -.9	33 30.9 2.1	174 50.6%
Column Total	27 7.8%	101 29.4%	86 25.0%	69 20.1%	61 17.7%	344 100.0%

Chi-Square	**Value**	**df**	**Significance**
Pearson	11.69938	4	.0197 *

* significant at the .05 level

Note: School A employs VSCs
School B does not employ VSCs

8.80743. The observed significance level for a chi-square of 8.80743, with four degrees of freedom, is .0661. Chances are less than 66 in 1,000 that the variables are independent in the population. Differences between observed frequencies and expected frequencies are not beyond what could occur by chance alone at the .05 level of significance. Retain the null hypothesis of independence at the .05 level. The researcher concludes that no significant relationship exists between school of attendance and attitudes toward behaving better while being monitored by VSCs (see Table 15).

School A Parents - Gender Cross Tabulation

The School A parent questionnaire required parents to respond to four statements regarding student behavior at school A. Responses are reported by percentage of respondents. School A employs video surveillance cameras in hallways. Table 16 depicts cross tabulation of data by gender for School A parents.

Statement number one: Students are well behaved while in the hallways. Approximately 66 percent of School A parents either always agreed or sometimes agreed with statement number one, whereas 24 percent either seldom agreed or never agreed. The remaining 10.4 percent of School A parents

Table 15

Contingency Table for School of Attendance and Student Behavior - Statement Number Four

I [*would*] behave better while being monitored by the video surveillance cameras.

Count Expected Residual	**Always**	**Some-times**	**Seldom**	**Never**	**Not Sure**	Row Total
School A	60 68.1 -8.1	39 40.8 -1.8	25 19.9 5.1	36 35.3 .7	12 8.0 4.0	172 49.7%
School B	77 68.9 8.1	43 41.2 1.8	15 20.1 -5.1	35 35.7 -.7	4 8.0 -4.0	174 50.3%
Column Total	137 39.6%	82 23.7%	40 11.6%	71 20.5%	16 4.6%	346 100.0%

Chi-Square	**Value**	**df**	**Significance**
Pearson	8.80743	4	.0661

Note: School A employs VSCs
School B does not employ VSCs

Table 16

Cross Tabulation of VSCs Effect on Perceptions of Student Behavior by Gender for School A Parents (percentages)

Effect on Perceptions of Student Behavior		Always	Sometimes	Seldom	Never	Not Sure
Students are well behaved while in the hallways.						
TOTAL	N = 96	3.1	62.5	21.9	2.1	10.4
Male	N = 29	0.0	58.6	27.6	3.4	10.3
Female	N = 67	4.5	64.2	19.4	1.5	10.4
Students behave better in hallways monitored by video surveillance cameras.						
TOTAL	N = 96	17.7	64.6	4.2	2.1	11.5
Male	N = 29	13.8	58.6	6.9	6.9	13.8
Female	N = 67	19.4	67.2	3.0	0.0	10.4
Students are prevented from misbehaving by video surveillance cameras.						
TOTAL	N = 96	8.3	65.6	13.5	2.1	10.4
Male	N = 29	6.9	41.4	27.6	6.9	17.2
Female	N = 67	9.0	76.1	7.5	0.0	7.5
My child behaves better while being monitored by video surveillance cameras.						
TOTAL	N = 96	35.4	31.3	6.3	3.1	24.0
Male	N = 29	37.9	17.2	10.3	10.3	24.1
Female	N = 67	34.3	37.3	4.5	0.0	23.9

Note: School A employs VSCs

indicated being not sure. Female parents possessed the highest percentage of agreement with 68.7 percent, whereas 20.9 percent indicated disagreement. Male School A parents indicated 58.6 percent agreement and 31.0 percent disagreement.

Statement number two: Students behave better in hallways monitored by video surveillance cameras. Approximately 82 percent of School A parents either always agreed or sometimes agreed with statement number two, whereas approximately 6 percent either seldom agreed or never agreed. The remaining 11.5 percent of School A parents indicated being not sure. Female parents possessed the highest percentage of agreement with 86.6 percent, whereas 3.0 percent indicated disagreement. Male School A parents indicated 72.4 percent agreement and 13.8 percent disagreement.

Statement number three: Students are prevented from misbehaving by video surveillance cameras. Approximately 74 percent of School A parents either always agreed or sometimes agreed with statement number three, whereas approximately 16 percent either seldom agreed or never agreed. The remaining 10.4 percent of School A parents indicated being not sure. Female parents possessed the highest percentage of agreement with 85.1 percent, whereas 7.5 percent indicated disagreement. Male School A parents indicated 48.3 percent agreement and 34.5 percent disagreement.

Statement number four: My child behaves better while being monitored by video surveillance cameras. Approximately 67 percent of School A parents either always agreed or sometimes agreed with statement number four, whereas approximately 9 percent either seldom agreed or never agreed. The remaining 24.0 percent of School A parents indicated being not sure. Female parents possessed the highest percentage of agreement with 71.6 percent, whereas 4.5 percent indicated disagreement. Male School A parents indicated 55.1 percent agreement and 20.6 percent disagreement.

School A Teachers - Gender Cross Tabulation

The School A teacher questionnaire required teachers to respond to four statements regarding student behavior at School A. Responses are reported by percentage of respondents. School A employs video surveillance cameras in hallways. Table 17 depicts cross tabulation of data by gender for School A teachers.

Statement number one: Students are well behaved while in the hallways. Approximately 76 percent of School A teachers either always agreed or sometimes agreed with statement number one, whereas approximately 23 percent either seldom agreed or never agreed. No School A teachers indicated being not sure. Female teachers possessed the highest percentage of agreement

Table 17

Cross Tabulation of VSCs Effect on Perceptions of Student Behavior by Gender for School A Teachers (percentages)

Effect on Perceptions of Student Behavior		Always	Sometimes	Seldom	Never	Not Sure
Students are well behaved while in the hallways.						
TOTAL	N = 89	0.0	76.4	20.2	3.4	0.0
Male	N = 28	0.0	60.7	32.1	7.1	0.0
Female	N = 61	0.0	83.6	14.8	1.6	0.0
Students behave better in hallways monitored by video surveillance cameras.						
TOTAL	N = 89	3.4	40.3	22.5	7.9	25.8
Male	N = 28	3.6	50.0	10.7	10.7	25.0
Female	N = 61	3.3	36.1	27.9	6.6	26.2
Students are prevented from misbehaving by video surveillance cameras.						
TOTAL	N = 89	2.3	35.2	29.5	13.6	19.3
Male	N = 28	0.0	42.9	28.6	14.3	14.3
Female	N = 61	3.3	31.7	30.0	13.3	21.7
My students behave better while being monitored by video surveillance cameras.						
TOTAL	N = 89	3.4	32.6	16.9	15.7	31.5
Male	N = 28	0.0	42.9	10.7	17.9	28.6
Female	N = 61	4.9	27.9	19.7	14.8	32.8

Note: School A employs VSCs

with 83.6 percent, whereas 16.4 percent indicated disagreement. Male School A teachers indicated 60.7 percent agreement and 39.2 percent disagreement.

Statement number two: Students behave better in hallways monitored by video surveillance cameras. Approximately 44 percent of School A teachers either always agreed or sometimes agreed with statement number two, whereas approximately 30 percent either seldom agreed or never agreed. The remaining 25.8 percent of School A teachers indicated being not sure. Male teachers possessed the highest percentage of agreement with 53.6 percent, whereas 21.4 percent indicated disagreement. Female School A teachers indicated 39.4 percent agreement and 34.5 percent disagreement.

Statement number three: Students are prevented from misbehaving by video surveillance cameras. Approximately 37 percent of School A teachers either always agreed or sometimes agreed with statement number three, whereas approximately 43 percent either seldom agreed or never agreed. The remaining 19.3 percent of School A teachers indicated being not sure. Male teachers possessed the highest percentage of agreement with 42.9 percent, whereas 42.9 percent indicated disagreement. Female School A teachers indicated 35.0 percent agreement and 43.3 percent disagreement.

Statement number four: My students behave better while being monitored by video surveillance cameras. Approximately 36 percent of School

A teachers either always agreed or sometimes agreed with statement number four, whereas approximately 33 percent either seldom agreed or never agreed. The remaining 31.5 percent of School A teachers indicated being not sure. Male teachers possessed the highest percentage of agreement with 42.9 percent, whereas 28.6 percent indicated disagreement. Female School A teachers indicated 32.8 percent agreement and 34.5 percent disagreement.

Research question number two: Do video surveillance cameras effect perceptions of school safety?

The School A student questionnaire required students to respond to four statements regarding school safety. Responses are reported by percentage of respondents. School A employs video surveillance cameras in hallways. Table 18 depicts cross tabulation of data by grade level for School A students.

School A Students - Grade Level Cross Tabulation

Statement number five: I feel safe in the halls before and after school. Approximately 74 percent of School A students either always agreed or sometimes agreed with statement number five, whereas approximately 21 percent either seldom agreed or never agreed. The remaining 4.6 percent of School A students indicated being not sure. The Grade 7 students possessed the highest percentage of agreement with 79.4 percent, whereas 19.0 percent indicated disagreement. Grade 8 students indicated 75.6 percent agreement and 14.7 percent disagreement. Grade 6 School A students indicated 71.1 percent agreement and 25.0 percent disagreement.

Statement number six: I feel safe in the halls between classes. Approximately 83 percent of School A students either always agreed or sometimes agreed with statement number six, whereas approximately 14 percent

Table 18

Cross Tabulation of VSCs Effect on Perceptions of Safety by Grade Level for School A Students (percentages)

Effect on Perceptions of Safety		Always	Sometimes	Seldom	Never	Not Sure
I feel safe in the halls before and after school.						
TOTAL	N = 175	46.9	27.4	13.1	8.0	4.6
Grade 6	N = 76	39.5	31.6	14.5	10.5	3.9
Grade 7	N = 58	46.6	32.8	12.1	6.9	1.7
Grade 8	N = 41	61.0	14.6	9.8	4.9	9.8
I feel safe in the halls between classes.						
TOTAL	N = 175	57.1	26.3	9.7	4.0	2.9
Grade 6	N = 76	46.1	32.9	14.5	5.3	1.3
Grade 7	N = 58	62.1	25.9	3.4	5.2	3.4
Grade 8	N = 41	73.2	14.6	7.3	0.0	4.9
I feel safer in hallways monitored by video surveillance cameras.						
TOTAL	N = 175	20.7	25.9	16.1	27.6	9.8
Grade 6	N = 76	22.4	31.6	9.2	28.9	7.9
Grade 7	N = 58	27.6	24.1	22.4	19.0	6.9
Grade 8	N = 41	9.8	17.1	19.5	36.6	17.1

Table 18 continued

Effect on Perceptions of Safety		Always	Sometimes	Seldom	Never	Not Sure
Video surveillance cameras make my school a safer place.						
TOTAL	N = 175	16.3	31.4	20.9	22.1	9.3
Grade 6	N = 76	21.1	32.9	13.2	26.3	6.6
Grade 7	N = 58	17.9	30.4	28.6	14.3	8.9
Grade 8	N = 41	4.9	31.7	24.4	24.4	14.6

Note: School A employs VSCs

either seldom agreed or never agreed. The remaining 2.9 percent of School A students indicated being not sure. The Grade 7 students possessed the highest percentage of agreement with 88.0 percent, whereas 8.6 percent indicated disagreement. Grade 8 students indicated 87.8 percent agreement and 7.3 percent disagreement. Grade 6 School A students indicated 79.0 percent agreement and 19.8 percent disagreement.

Statement number seven: I feel safer in hallways monitored by video surveillance cameras. Approximately 47 percent of School A students either always agreed or sometimes agreed with statement number seven, whereas approximately 44 percent either seldom agreed or never agreed. The remaining 9.8 percent of School A students indicated being not sure. The Grade 7 students possessed the highest percentage of agreement with 51.7 percent, whereas 41.4 percent indicated disagreement. Grade 6 students indicated 54.0 percent agreement and 38.1 percent disagreement. Grade 8 School A students indicated 26.9 percent agreement and 56.1 percent disagreement.

Statement number eight: Video surveillance cameras make my school a safer place. Approximately 48 percent of School A students either always agreed or sometimes agreed with statement number eight, whereas 43 percent either seldom agreed or never agreed. The remaining 9.3 percent of School A students indicated being not sure. The Grade 6 students possessed the highest

percentage of agreement with 54.0 percent, whereas 39.5 percent indicated disagreement. Grade 7 students indicated 48.3 percent agreement and 42.9 percent disagreement. Grade 8 School A students indicated 36.6 percent agreement and 48.8 percent disagreement.

School B Students - Grade Level Cross Tabulation

The School B student questionnaire required students to respond to four statements regarding school safety. Responses are reported by percentage of respondents. School B does not employ video surveillance cameras in hallways. Table 19 depicts cross tabulation of data by grade level for School B students.

Statement number five: I feel safe in the halls before and after school. Approximately 90 percent of School B students either always agreed or sometimes agreed with statement number five, whereas approximately 10 percent either seldom agreed or never agreed. The remaining 0.6 percent of School B students indicated being not sure. The Grade 7 students possessed the highest percentage of agreement with 95.0 percent, whereas 5.0 percent indicated disagreement. Grade 8 students indicated 88.7 percent agreement and 9.7 percent disagreement. Grade 6 School B students indicated 88.3 percent agreement and 12.6 percent disagreement.

Table 19

Cross Tabulation of VSCs Effect on Perceptions of Safety by Grade Level for School B Students (percentages)

Effect on Perceptions of Safety		Always	Sometimes	Seldom	Never	Not Sure
I feel safe in the halls before and after school.						
TOTAL	N = 173	70.1	19.5	5.7	4.0	0.6
Grade 6	N = 71	66.2	22.1	7.0	5.6	0.0
Grade 7	N = 40	67.5	27.5	2.5	2.5	0.0
Grade 8	N = 62	75.8	12.9	6.5	3.2	1.6
I feel safe in the halls between classes.						
TOTAL	N = 173	70.7	18.4	5.7	4.0	1.1
Grade 6	N = 71	64.8	21.1	8.5	4.2	1.4
Grade 7	N = 40	70.0	25.0	2.5	2.5	0.0
Grade 8	N = 62	77.4	11.3	4.8	4.8	1.6
I would feel safer in hallways monitored by video surveillance cameras.						
TOTAL	N = 173	27.0	19.5	12.1	32.2	9.2
Grade 6	N = 71	29.6	19.7	8.5	33.8	8.5
Grade 7	N = 40	32.5	20.0	12.5	32.5	2.5
Grade 8	N = 62	21.0	19.4	16.1	29.0	14.5

Table 19 continued

Effect on Perceptions of Safety		Always	Sometimes	Seldom	Never	Not Sure
Video surveillance cameras would make my school a safer place.						
TOTAL	N = 173	21.3	30.5	13.8	21.8	12.6
Grade 6	N = 71	26.8	21.1	14.1	21.1	16.9
Grade 7	N = 40	22.5	32.5	12.5	25.0	7.5
Grade 8	N = 62	14.5	40.3	14.5	19.4	11.3

Note: School B does not employ VSCs

Statement number six: I feel safe in the halls between classes. Approximately 89 percent of School B students either always agreed or sometimes agreed with statement number six, whereas approximately 10 percent either seldom agreed or never agreed. The remaining 1.1 percent of School B students indicated being not sure. The Grade 7 students possessed the highest percentage of agreement with 95.0 percent, whereas 5.0 percent indicated disagreement. Grade 8 students indicated 88.7 percent agreement and 9.6 percent disagreement. Grade 6 School B students indicated 85.9 percent agreement and 12.7 percent disagreement.

Statement number seven: I would feel safer in hallways monitored by video surveillance cameras. Approximately 46 percent of School B students either always agreed or sometimes agreed with statement number seven, whereas approximately 44 percent either seldom agreed or never agreed. The remaining 9.2 percent of School B students indicated being not sure. The Grade 7 students possessed the highest percentage of agreement with 52.5 percent, whereas 45.0 percent indicated disagreement. Grade 6 students indicated 49.3 percent agreement and 42.3 percent disagreement. Grade 8 School B students indicated 40.4 percent agreement and 45.1 percent disagreement.

Statement number eight: Video surveillance cameras would make my school a safer place. Approximately 52 percent of School B students either always agreed or sometimes agreed with statement number eight, whereas approximately 36 percent either seldom agreed or never agreed. The remaining 12.6 percent of School B students indicated being not sure. The Grade 7 students possessed the highest percentage of agreement with 55.0 percent, whereas 37.5 percent indicated disagreement. Grade 8 students indicated 54.8 percent agreement and 33.9 percent disagreement. Grade 6 School B students indicated 47.9 percent agreement and 35.2 percent disagreement.

School A Students - Gender Cross Tabulation

Table 20 depicts cross tabulation of data by gender for School A students. School A employs video surveillance cameras in hallways.

Statement number five: I feel safe in the halls before and after school. The female School A students possessed the highest percentage of agreement with 75.8 percent, whereas 19.5 percent indicated disagreement. Male students indicated 72.7 percent agreement and 22.7 percent disagreement.

Statement number six: I feel safe in the halls between classes. The female School A students possessed the highest percentage of agreement with 83.9 percent, whereas 13.8 percent indicated disagreement. Male students

Table 20

Cross Tabulation of VSCs Effect on Perceptions of Safety by Gender for School A Students (percentages)

Effect on Perceptions of Safety		Always	Sometimes	Seldom	Never	Not Sure
I feel safe in the halls before and after school.						
TOTAL	N = 175	46.9	27.4	13.1	8.0	4.6
Male	N = 88	44.3	28.4	12.5	10.2	4.5
Female	N = 87	49.4	26.4	13.8	5.7	4.6
I feel safe in the halls between classes.						
TOTAL	N = 175	57.1	26.3	9.7	4.0	2.9
Male	N = 88	56.8	26.1	10.2	3.4	3.4
Female	N = 87	57.5	26.4	9.2	4.6	2.3
I feel safer in hallways monitored by video surveillance cameras.						
TOTAL	N = 175	20.7	25.9	16.1	27.6	9.8
Male	N = 88	19.5	21.8	21.8	29.9	6.9
Female	N = 87	21.8	29.9	10.3	25.3	12.6
Video surveillance cameras make my school a safer place.						
TOTAL	N = 175	16.3	31.4	20.9	22.1	9.3
Male	N = 88	18.4	31.0	17.2	24.1	9.2
Female	N = 87	14.1	31.8	24.7	20.0	9.4

Note: School A employs VSCs

indicated 82.9 percent agreement and 13.6 percent disagreement.

Statement number seven: I feel safe in hallways monitored by video surveillance cameras. The female School A students possessed the highest percentage of agreement with 51.7 percent, whereas 35.6 percent indicated disagreement. Male students indicated 41.3 percent agreement and 51.7 percent disagreement.

Statement number eight: Video surveillance cameras make my school a safer place. The male School A students possessed the highest percentage of agreement with 49.4 percent, whereas 41.3 percent indicated disagreement. Female students indicated 45.9 percent agreement and 44.7 percent disagreement.

School B Students - Gender Cross Tabulation

Table 21 depicts cross tabulation of data by gender for School B students. School B does not employ video surveillance cameras in hallways.

Statement number five: I feel safe in the halls before and after school. The female School B students possessed the highest percentage of agreement with 91.8 percent, whereas 8.2 percent indicated disagreement. Male students indicated 86.8 percent agreement and 11.9 percent disagreement.

Table 21

Cross Tabulation of VSCs Effect on Perceptions of Safety by Gender for School B Students (percentages)

Effect on Perceptions of Safety		Always	Sometimes	Seldom	Never	Not Sure
I feel safe in the halls before and after school.						
TOTAL	N = 174	70.1	19.5	5.7	4.0	0.6
Male	N = 76	67.1	19.7	6.6	5.3	1.3
Female	N = 98	72.4	19.4	5.1	3.1	0.0
I feel safe in the halls between classes.						
TOTAL	N = 174	70.7	18.4	5.7	4.0	1.1
Male	N = 76	72.4	18.4	5.3	2.6	1.3
Female	N = 98	69.4	18.4	6.1	5.1	1.0
I would feel safer in hallways monitored by video surveillance cameras.						
TOTAL	N = 174	27.0	19.5	12.1	32.2	9.2
Male	N = 76	27.6	17.1	14.5	35.5	5.3
Female	N = 98	26.5	21.4	10.2	29.6	12.2
Video surveillance cameras would make my school a safer place.						
TOTAL	N = 174	21.3	30.5	13.8	21.8	12.6
Male	N = 76	23.7	27.6	15.8	19.7	13.2
Female	N = 98	19.4	32.7	12.2	23.5	12.2

Note: School B does not employ VSCs

Statement number six: I feel safe in the halls between classes. The male School B students possessed the highest percentage of agreement with 90.8 percent, whereas 7.9 percent indicated disagreement. Female students indicated 87.8 percent agreement and 11.2 percent disagreement.

Statement number seven: I would feel safer in hallways monitored by video surveillance cameras. The female School B students possessed the highest percentage of agreement with 47.9 percent, whereas 39.8 percent indicated disagreement. Male students indicated 44.7 percent agreement and 50.0 percent disagreement.

Statement number eight: Video surveillance cameras would make my school a safer place. The female School B students possessed the highest percentage of agreement with 52.1 percent, whereas 35.7 percent indicated disagreement. Male students indicated 51.3 percent agreement and 35.5 percent disagreement.

Comparison of School A Students and School B Students

Table 22 depicts cross tabulation of VSCs effect on perceptions of school safety by grade level for both School A students and School B students. Table 23 depicts cross tabulation of VSCs effect on perceptions of school safety by gender for both School A students and School B students.

Table 22

Cross Tabulation of VSCs Effect on Perceptions of Safety by Grade Level for School A Students and School B Students (percentages)

EFFECTS ON PERCEPTIONS OF SAFETY	ALWAYS		SOMETIMES		SELDOM		NEVER		NOT SURE	
SCHOOL	A	B	A	B	A	B	A	B	A	B
I feel safe in the halls before and after school.										
Grade 6	39.5	66.2	31.6	21.1	14.5	7.0	10.5	5.6	3.9	0.0
Grade 7	46.6	67.5	32.8	27.5	12.1	2.5	6.9	2.5	1.7	0.0
Grade 8	61.0	75.8	14.6	12.9	9.8	6.5	4.9	3.2	9.8	1.6
I feel safe in the halls between classes.										
Grade 6	46.1	64.8	32.9	21.1	14.5	8.5	5.3	4.2	1.3	1.4
Grade 7	62.1	70.0	25.9	25.0	3.4	2.5	5.2	2.5	3.4	0.0
Grade 8	73.2	74.4	14.6	11.3	7.3	4.8	0.0	4.8	4.9	1.6
I [*would*] feel safer in hallways monitored by video surveillance cameras.										
Grade 6	22.4	29.6	31.6	19.7	9.2	8.5	28.9	33.8	7.9	8.5
Grade 7	27.6	32.5	24.1	20.0	22.4	12.5	19.0	32.5	6.9	2.5
Grade 8	9.8	21.0	17.1	19.4	19.5	16.1	36.6	29.0	17.1	14.5

Table 22 continued

EFFECT ON PERCEPTIONS OF SAFETY	ALWAYS		SOMETIMES		SELDOM		NEVER		NOT SURE	
SCHOOL	A	B	A	B	A	B	A	B	A	B
Video surveillance cameras [*would*] make my school a safer place.										
Grade 6	21.1	26.8	32.9	21.1	13.2	14.1	26.3	21.1	6.6	16.9
Grade 7	17.9	22.5	30.4	32.5	28.6	12.5	14.3	25.0	8.9	7.5
Grade 8	4.9	14.5	31.7	40.3	24.4	14.5	24.4	19.4	14.6	11.3

Note: School A employs VSCs
School B does not employ VSCs

Table 23

Cross Tabulation of VSCs Effect on Perceptions of Safety by Gender for School A Students and School B Students (percentages)

EFFECT ON PERCEPTIONS OF SAFETY	ALWAYS		SOMETIMES		SELDOM		NEVER		NOT SURE	
SCHOOL	A	B	A	B	A	B	A	B	A	B
I feel safe in the halls before and after school.										
Male	44.3	67.1	28.4	19.7	12.5	6.6	10.2	5.3	4.5	1.3
Female	49.4	72.4	26.4	19.4	13.8	5.1	5.7	3.1	4.6	0.0
I feel safe in the halls between classes.										
Male	56.8	72.4	26.1	18.4	10.2	5.3	3.4	2.6	3.4	1.3
Female	57.5	69.4	26.4	18.4	9.2	6.1	4.6	5.1	2.3	1.0
I [*would*] feel safer in hallways monitored by video surveillance cameras.										
Male	19.5	27.6	21.8	17.1	21.8	14.5	29.9	35.5	6.9	5.3
Female	21.8	26.5	29.9	21.4	10.3	10.2	25.3	29.6	12.6	12.2

Table 23 continued

EFFECT ON PERCEPTIONS OF SAFETY	ALWAYS		SOMETIMES		SELDOM		NEVER		NOT SURE	
SCHOOL	A	B	A	B	A	B	A	B	A	B
Video surveillance cameras [*would*] make my school a safer place.										
Male	18.4	23.7	31.0	27.6	17.2	15.8	24.1	19.7	9.2	13.2
Female	14.1	19.4	13.8	32.7	24.7	12.2	20.0	23.5	9.4	12.2

Note: School A employs VSCs
School B does not employ VSCs

Test of Independence for School A Students and School B Students

The Pearson chi-square test of independence was used to determine if any reason exists to believe that School A students respond differently from School B students on statements concerning safety. Statement number five: I feel safe in the halls before and after school. The Pearson chi-square value equals 23.70731. The observed significance level for a chi-square of 23.70731, with four degrees of freedom, is .0000. Chances are less than one in 1,000 that the variables are independent in the population. Differences between observed frequencies and expected frequencies are beyond what could occur by chance alone at the .01 level of significance. Reject the null hypothesis of independence at the .01 level. The researcher concludes that a significant relationship exists between school of attendance and attitudes toward feeling safe in the halls before and after school (see Table 24).

Statement number six: I feel safe in the halls between classes. The Pearson chi-square value equals 7.99991. The observed significance level for a chi-square of 7.99991, with four degrees of freedom, is .0915. Chances are less than 91 in 1,000 that the variables are independent in the population. Differences between observed frequencies and expected frequencies probably occur by chance alone at the .05 level of significance. Retain the null hypothesis of independence at the .05 level. The researcher concludes that no

Table 24

Contingency Table for School of Attendance and School Safety - Statement Number Five

I feel safe in the halls before and after school.

Count Expected Residual	Always	Some-times	Seldom	Never	Not Sure	Row Total
School A	80 100.4 -20.4	47 40.3 6.7	23 16.4 6.6	14 10.4 3.6	8 4.5 3.5	172 49.7%
School B	122 101.6 20.4	34 40.7 -6.7	10 16.6 -6.6	7 10.6 -3.6	1 4.5 -3.5	174 50.3%
Column Total	202 58.4%	81 23.4%	33 9.5%	21 6.1%	9 2.6%	346 100.0%

Chi-Square	Value	df	Significance
Pearson	23.70731	4	.0000 *

* significant at the .01 level

Note: School A employs VSCs
School B does not employ VSCs

significant relationship exists between school of attendance and attitudes toward feeling safe in the halls between classes (see Table 25).

Statement number seven: I [*would*] feel safer in hallways monitored by video surveillance cameras. The Pearson chi-square value equals 4.82914. The observed significance level for a chi-square of 4.82914, with four degrees of freedom, is .3052. Chances are less than 305 in 1,000 that the variables are independent in the population. Differences between observed frequencies and expected frequencies probably occur by chance alone at the .05 level of significance. Retain the null hypothesis of independence at the .05 level. The researcher concludes that no significant relationship exists between school of attendance and attitudes toward feeling safer in hallways monitored by VSCs (see Table 26).

Statement number eight: Video surveillance cameras [*would*] make my school a safer place. The Pearson chi-square value equals 5.21891. The observed significance level for a chi-square of 5.21891, with four degrees of freedom, is .2655. Chances are less than 265 in 1,000 that the variables are independent in the population. Differences between observed frequencies and expected frequencies probably occur by chance alone at the .05 level of significance. Retain the null hypothesis of independence at the .05 level. The

Table 25

Contingency Table for School of Attendance and School Safety - Statement Number Six

I feel safe in the halls between classes.

Count Expected Residual	Always	Some-times	Seldom	Never	Not Sure	Row Total
School A	98 109.9 -11.9	46 38.8 7.2	16 12.9 3.1	7 7.0 .0	5 3.5 1.5	172 49.7%
School B	123 111.1 11.9	32 39.2 -7.2	10 13.1 -3.1	7 7.0 .0	2 3.5 -1.5	174 50.3%
Column Total	221 63.9%	78 22.5%	26 7.5%	14 4.0%	7 2.0%	346 100.0%

Chi-Square	Value	df	Significance
Pearson	7.99991	4	.0915

Note: School A employs VSCs
School B does not employ VSCs

Table 26

Contingency Table for School of Attendance and School Safety - Statement Number Seven

I [*would*] feel safer in the hallways monitored by video surveillance cameras.

Count Expected Residual	**Always**	**Some-times**	**Seldom**	**Never**	**Not Sure**	Row Total
School A	35 40.6 -5.6	44 38.7 5.3	28 24.3 3.7	47 51.1 -4.1	17 16.4 .6	171 49.6%
School B	47 41.4 5.6	34 39.3 -5.3	21 24.7 -3.7	56 51.9 4.1	16 16.6 -.6	174 50.4%
Column Total	82 23.8%	78 22.6%	49 14.2%	103 29.9%	33 9.6%	345 100.0%

Chi-Square	**Value**	**df**	**Significance**
Pearson	4.82914	4	.3052

Note: School A employs VSCs
School B does not employ VSCs

researcher concludes that no significant relationship exists between school of attendance and attitudes toward VSCs making the school a safer place (see Table 27).

School A Parents - Gender Cross Tabulation

The School A parent questionnaire required parents to respond to four statements regarding safety at school A. Responses are reported by percentage of respondents. School A employs video surveillance cameras in hallways. Table 28 depicts cross tabulation of data by gender for School A parents.

Statement number five: My child is safe in the halls before and after school. Approximately 71 percent of School A parents either always agreed or sometimes agreed with statement number five, whereas approximately 14 percent either seldom agreed or never agreed. The remaining 15.6 percent of School A parents indicated being not sure. Female parents possessed the highest percentage of agreement with 77.6 percent, whereas 9.0 percent indicated disagreement. Male School A parents indicated 55.2 percent agreement and 24.1 percent disagreement.

Statement number six: My child is safe in the halls between classes. Seventy-five percent of School A parents either always agreed or sometimes agreed with statement number six, whereas approximately 15 percent either

Table 27

Contingency Table for School of Attendance and School Safety - Statement Number Eight

Video surveillance cameras [*would*] make my school a safer place.

Count Expected Residual	**Always**	**Some-times**	**Seldom**	**Never**	**Not Sure**	Row Total
School A	26 31.0 -5.0	54 52.7 1.3	36 29.6 6.4	37 37.0 .0	16 18.7 -2.7	169 49.3%
School B	37 32.0 5.0	53 54.3 -1.3	24 30.4 -6.4	38 38.0 .0	22 19.3 2.7	174 50.7%
Column Total	63 18.4%	107 31.2%	60 17.5%	75 21.9%	38 11.1%	343 100.0%

Chi-Square	**Value**	**df**	**Significance**
Pearson	5.21891	4	.2655

Note: School A employs VSCs
School B does not employ VSCs

Table 28

Cross Tabulation of VSCs Effect on Perceptions of Safety by Gender for School A

Parents (percentages)

Effect on Perceptions of Safety		Always	Sometimes	Seldom	Never	Not Sure
My child is safe in the halls before and after school.						
TOTAL	N = 96	20.8	50.0	11.5	2.1	15.6
Male	N = 29	27.6	27.6	20.7	3.4	20.7
Female	N = 67	17.9	59.7	7.5	1.5	13.4
My child is safe in the halls between classes.						
TOTAL	N = 96	19.8	55.2	14.6	0.0	10.4
Male	N = 29	20.7	44.8	20.7	0.0	13.8
Female	N = 67	19.4	59.7	11.9	0.0	9.0
My child is safer in hallways monitored by video surveillance cameras.						
TOTAL	N = 96	38.5	38.5	6.3	3.1	3.5
Male	N = 29	31.0	27.6	20.7	6.9	13.8
Female	N = 67	41.8	43.3	0.0	1.5	13.4
Video surveillance cameras make the school a safer place.						
TOTAL	N = 96	44.8	36.5	5.2	2.1	11.5
Male	N = 29	37.9	37.9	6.9	3.4	13.8
Female	N = 67	47.8	35.8	4.5	1.5	10.4

Note: School A employs VSCs

seldom agreed or never agreed. The remaining 10.4 percent of School A parents indicated being not sure. Female parents possessed the highest percentage of agreement with 79.1 percent, whereas 11.9 percent indicated disagreement. Male School A parents indicated 65.5 percent agreement and 20.7 percent disagreement.

Statement number seven: My child is safer in hallways monitored by video surveillance cameras. Seventy-seven percent of School A parents either always agreed or sometimes agreed with statement number seven, whereas approximately 9 percent either seldom agreed or never agreed. The remaining 13.5 percent of School A parents indicated being not sure. Female parents possessed the highest percentage of agreement with 85.1 percent, whereas 1.5 percent indicated disagreement. Male School A parents indicated 58.6 percent agreement and 27.6 percent disagreement.

Statement number eight: Video surveillance cameras make the school a safer place. Approximately 81 percent of School A parents either always agreed or sometimes agreed with statement number eight, whereas approximately 7 percent either seldom agreed or never agreed. The remaining 11.5 percent of School A parents indicated being not sure. Female parents possessed the highest percentage of agreement with 83.6 percent, whereas 6.0

percent indicated disagreement. Male School A parents indicated 75.8 percent agreement and 10.3 percent disagreement.

School A Teachers - Gender Cross Tabulation

The School A teacher questionnaire requires teachers to respond to four statements regarding safety at School A. Responses are reported by percentage of respondents. School A employs video surveillance cameras in hallways. Table 29 depicts cross tabulation of data by gender for School A teachers.

Statement number five: I feel safe in the halls before and after school. Approximately 99 percent of School A teachers either always agreed or sometimes agreed with statement number five, whereas approximately 1 percent either seldom agreed or never agreed. No School A teachers indicated being not sure. Male teachers possessed the highest percentage of agreement with 100.0 percent, whereas 0.0 percent indicated disagreement. Female School A teachers indicated 98.3 percent agreement and 1.6 percent disagreement.

Statement number six: I feel safe in the halls between classes. Approximately 97 percent of School A teachers either always agreed or sometimes agreed with statement number six, whereas approximately 3 percent either seldom agreed or never agreed. No School A teachers indicated being

Table 29

Cross Tabulation of VSCs Effect on Perceptions of Safety by Gender for School A Teachers (percentages)

Effect on Perceptions of Safety		Always	Sometimes	Seldom	Never	Not Sure
I feel safe in the halls before and after school.						
TOTAL	N = 89	79.8	19.1	0.0	1.1	0.0
Male	N = 28	85.7	14.3	0.0	0.0	0.0
Female	N = 61	77.0	21.3	0.0	1.6	0.0
I feel safe in the halls between classes.						
TOTAL	N = 89	61.8	34.8	2.2	1.1	0.0
Male	N = 28	82.1	17.9	0.0	0.0	0.0
Female	N = 61	52.5	42.6	3.3	1.6	0.0
I am safer in hallways monitored by video surveillance cameras.						
TOTAL	N = 89	20.2	34.8	10.1	7.9	27.0
Male	N = 28	17.9	35.7	0.0	14.3	32.1
Female	N = 61	21.3	34.4	14.8	4.9	24.6
Video surveillance cameras make the school a safer place.						
TOTAL	N = 89	20.2	48.3	12.4	2.2	16.9
Male	N = 28	25.0	32.1	14.3	3.6	25.0
Female	N = 61	18.0	55.7	11.5	1.6	13.1

Note: School A employs VSCs

not sure. Male teachers possessed the highest percentage of agreement with 100.0 percent, whereas 0.0 percent indicated disagreement. Female School A teachers indicated 95.1 percent agreement and 4.9 percent disagreement.

Statement number seven: I am safer in hallways monitored by video surveillance cameras. Fifty-five percent of School A teachers either always agreed or sometimes agreed with statement number seven, whereas 18 percent either seldom agreed or never agreed. The remaining 27.0 percent of School A teachers indicated being not sure. Female teachers possessed the highest percentage of agreement with 55.7 percent, whereas 19.7 percent indicated disagreement. Male School A teachers indicated 53.6 percent agreement and 14.3 percent disagreement.

Statement number eight: Video surveillance cameras make the school a safer place. Approximately 68 percent of School A teachers either always agreed or sometimes agreed with statement number eight, whereas approximately 15 percent either seldom agreed or never agreed. The remaining 16.9 percent of School A teachers indicated being not sure. Female teachers possessed the highest percentage of agreement with 73.7 percent, whereas 13.1 percent indicated disagreement. Male School A teachers indicated 57.1 percent agreement and 17.9 percent disagreement.

Research question number three: Do video surveillance cameras effect feelings of privacy?

School A Students - Grade Level Cross Tabulation

The School A student questionnaire required students to respond to four statements regarding feelings of privacy. Responses are reported by percentage of respondents. School A employs video surveillance cameras in hallways. Table 30 depicts cross tabulation of data by grade level for School A students.

Statement number nine: Being watched by video cameras does not bother me. Approximately 54 percent of School A students either always agreed or sometimes agreed with statement number nine, whereas approximately 37 percent either seldom agreed or never agreed. The remaining 9.1 percent of School A students indicated being not sure. The Grade 8 students possessed the highest percentage of agreement with 70.7 percent, whereas 24.4 percent indicated disagreement. Grade 6 students indicated 53.9 percent agreement and 40.8 percent disagreement. Grade 7 School A students indicated 41.4 percent agreement and 41.4 percent disagreement.

Statement number ten: I like for other students to be watched by video surveillance cameras. Approximately 41 percent of School A students either always agreed or sometimes agreed with statement number ten, whereas

Table 30

Cross Tabulation of VSCs Effect on Feelings of Privacy by Grade Level for School A Students (percentages)

Effect on Feelings of Privacy		Always	Sometimes	Seldom	Never	Not Sure
Being watched by video cameras does not bother me.						
TOTAL	N = 175	33.1	20.6	11.4	25.7	9.1
Grade 6	N = 76	42.1	11.8	9.2	31.6	5.3
Grade 7	N = 58	20.7	20.7	13.8	27.6	17.2
Grade 8	N = 41	34.1	36.6	9.8	14.6	4.9
I like for other students to be watched by video surveillance cameras.						
TOTAL	N = 175	20.0	21.1	15.4	32.0	11.4
Grade 6	N = 76	22.4	25.0	11.8	32.9	7.9
Grade 7	N = 58	19.0	22.4	22.4	25.9	10.3
Grade 8	N = 41	17.1	12.2	12.2	39.0	19.5
I notice the video cameras while I am in the hallway.						
TOTAL	N = 175	42.3	21.1	9.7	24.6	2.3
Grade 6	N = 76	34.2	17.1	7.9	36.8	3.9
Grade 7	N = 58	44.8	27.6	10.3	17.2	0.0
Grade 8	N = 41	53.7	19.5	12.2	12.2	2.4

Table 30 continued

Effect on Feelings of Privacy		Always	Sometimes	Seldom	Never	Not Sure
I feel spied upon by video surveillance cameras.						
TOTAL	N = 175	39.4	22.9	12.6	22.3	2.9
Grade 6	N = 76	36.8	18.4	14.5	26.3	3.9
Grade 7	N = 58	36.2	22.4	15.5	24.1	1.7
Grade 8	N = 41	48.8	29.3	7.3	12.2	2.4

Note: School A employs VSCs

approximately 47 percent either seldom agreed or never agreed. The remaining 11.4 percent of School A students indicated being not sure. The Grade 6 students possessed the highest percentage of agreement with 47.4 percent, whereas 44.7 percent indicated disagreement. Grade 7 students indicated 41.4 percent agreement and 48.3 percent disagreement. Grade 8 School A students indicated 29.3 percent agreement and 51.2 percent disagreement.

Statement number eleven: I notice the video cameras while I am in the hallway. Approximately 63 percent of School A students either always agreed or sometimes agreed with statement number eleven, whereas approximately 34 percent either seldom agreed or never agreed. The remaining 2.3 percent of School A students indicated being not sure. The Grade 8 students possessed the highest percentage of agreement with 73.2 percent, whereas 24.4 percent indicated disagreement. Grade 7 students indicated 72.4 percent agreement and 27.5 percent disagreement. Grade 6 School A students indicated 51.3 percent agreement and 44.7 percent disagreement.

Statement number twelve: I feel spied upon by video surveillance cameras. Approximately 62 percent of School A students either always agreed or sometimes agreed with statement number twelve, whereas approximately 35 percent either seldom agreed or never agreed. The remaining 2.9 percent of School A students indicated being not sure. The Grade 8 students possessed the

highest percentage of agreement with 78.1 percent, whereas 19.5 percent indicated disagreement. Grade 7 students indicated 58.6 percent agreement and 39.6 percent disagreement. Grade 6 School A students indicated 55.2 percent agreement and 40.8 percent disagreement.

School B Students - Grade Level Cross Tabulation

The School B student questionnaire required students to respond to four statements regarding feelings of privacy. Responses are reported by percentage of respondents. School B does not employ video surveillance cameras in hallways. Table 31 depicts cross tabulation of data by grade level for School B students.

Statement number nine: Being watched by video cameras would not bother me. Approximately 64 percent of School B students either always agreed or sometimes agreed with statement number nine, whereas approximately 32 percent either seldom agreed or never agreed. The remaining 4.0 percent of School B students indicated being not sure. The Grade 7 students possessed the highest percentage of agreement with 70.0 percent, whereas 30.0 percent indicated disagreement. Grade 8 students indicated 66.1 percent agreement and 25.8 percent disagreement. Grade 6 School B students indicated 59.1 percent agreement and 38.1 percent disagreement.

Table 31

Cross Tabulation of VSCs Effect on Feelings of Privacy by Grade Level for School B Students (percentages)

Effect on Feelings of Privacy		Always	Sometimes	Seldom	Never	Not Sure
Being watched by video cameras would not bother me.						
TOTAL	N = 173	37.9	25.9	8.0	24.1	4.0
Grade 6	N = 71	39.4	19.7	9.9	28.2	2.8
Grade 7	N = 40	40.0	30.0	5.0	25.0	0.0
Grade 8	N = 62	35.5	30.6	8.1	17.7	8.1
I would like for other students to be watched by video surveillance cameras.						
TOTAL	N = 173	20.7	21.3	12.6	37.9	7.5
Grade 6	N = 71	23.9	21.1	8.5	36.6	9.9
Grade 7	N = 40	20.0	15.0	15.0	42.5	7.5
Grade 8	N = 62	17.7	25.8	16.1	35.5	4.8
I would notice the video cameras while I am in the hallway.						
TOTAL	N = 173	52.9	20.7	9.8	6.9	9.8
Grade 6	N = 71	53.5	16.9	12.7	8.5	8.5
Grade 7	N = 40	57.5	20.0	5.0	7.5	10.0
Grade 8	N = 62	48.4	25.8	9.7	4.8	11.3

Table 31 continued

Effect on Feelings of Privacy		Always	Sometimes	Seldom	Never	Not Sure
I would feel spied upon by video surveillance cameras.						
TOTAL	N = 173	59.5	18.5	8.1	12.7	1.2
Grade 6	N = 71	56.3	16.9	11.3	15.5	0.0
Grade 7	N = 40	55.0	27.5	7.5	10.0	0.0
Grade 8	N = 62	65.6	14.8	4.9	11.5	3.3

Note: School B does not employ VSCs

Statement number ten: I would like for other students to be watched by video surveillance cameras. Forty-two percent of School B students either always agreed or sometimes agreed with statement number ten, whereas approximately 50 percent either seldom agreed or never agreed. The remaining 7.5 percent of School B students indicated being not sure. The Grade 6 students possessed the highest percentage of agreement with 45.0 percent, whereas 45.1 percent indicated disagreement. Grade 8 students indicated 43.5 percent agreement and 51.6 percent disagreement. Grade 7 School B students indicated 35.0 percent agreement and 57.5 percent disagreement.

Statement number eleven: I would notice the video cameras while I am in the hallway. Approximately 74 percent of School B students either always agreed or sometimes agreed with statement number eleven, whereas approximately 17 percent either seldom agreed or never agreed. The remaining 9.8 percent of School B students indicated being not sure. The Grade 7 students possessed the highest percentage of agreement with 77.5 percent, whereas 12.5 percent indicated disagreement. Grade 8 students indicated 74.2 percent agreement and 14.5 percent disagreement. Grade 6 School B students indicated 70.4 percent agreement and 21.2 percent disagreement.

Statement number twelve: I would feel spied upon by video surveillance cameras. Seventy-eight percent of School B students either always agreed or

sometimes agreed with statement number twelve, whereas approximately 21 percent either seldom agreed or never agreed. The remaining 1.2 percent of School B students indicated being not sure. The Grade 7 students possessed the highest percentage of agreement with 82.5 percent, whereas 17.5 percent indicated disagreement. Grade 8 students indicated 80.4 percent agreement and 16.4 percent disagreement. Grade 6 School B students indicated 73.2 percent agreement and 26.8 percent disagreement.

School A Students - Gender Cross Tabulation

Table 32 depicts cross tabulation of data by gender for School A students. School A employs video surveillance cameras in hallways.

Statement number nine: Being watched by video cameras does not bother me. The female School A students possessed the highest percentage of agreement with 57.5 percent, whereas 35.6 percent indicated disagreement. Male students indicated 50.0 percent agreement and 38.7 percent disagreement.

Statement number ten: I like for other students to be watched by video surveillance cameras. The male School A students possessed the highest percentage of agreement with 45.5 percent, whereas 44.3 percent indicated disagreement. Female students indicated 36.8 percent agreement and 50.6 percent disagreement.

Table 32

Cross Tabulation of VSCs Effect on Feelings of Privacy by Gender for School A Students (percentages)

Effect on Feelings of Privacy		Always	Sometimes	Seldom	Never	Not Sure
Being watched by video cameras does not bother me.						
TOTAL	N = 175	33.1	20.6	11.4	25.7	9.1
Male	N = 88	31.8	18.2	11.4	27.3	11.4
Female	N = 87	34.5	23.0	11.5	24.1	6.9
I like for other students to be watched by video surveillance cameras.						
TOTAL	N = 175	20.0	21.1	15.4	32.0	11.4
Male	N = 88	21.6	23.9	14.8	29.5	10.2
Female	N = 87	18.4	18.4	16.1	34.5	12.6
I notice the video cameras while I am in the hallway.						
TOTAL	N = 175	42.3	21.1	9.7	24.6	2.3
Male	N = 88	54.5	17.0	5.7	20.5	2.3
Female	N = 87	29.9	25.3	13.8	28.7	2.3
I feel spied upon by video surveillance cameras.						
TOTAL	N = 175	39.4	22.9	12.6	22.3	2.9
Male	N = 88	44.3	17.0	13.6	22.7	2.3
Female	N = 87	34.5	28.7	11.5	21.8	3.4

Note: School A employs VSCs

Statement number eleven: I notice the video cameras while I am in the hallway. The male School A students possessed the highest percentage of agreement with 71.5 percent, whereas 26.2 percent indicated disagreement. Female students indicated 55.2 percent agreement and 42.5 percent disagreement.

Statement number twelve: I feel spied upon by video surveillance cameras. The female School A students possessed the highest percentage of agreement with 63.2 percent, whereas 33.3 percent indicated disagreement. Male students indicated 61.3 percent agreement and 36.3 percent disagreement.

School B Students - Gender Cross Tabulation

Table 33 depicts cross tabulation of data by gender for School B students. School B does not employ video surveillance cameras in hallways.

Statement number nine: Being watched by video cameras would not bother me. The female School B students possessed the highest percentage of agreement with 67.4 percent, whereas 28.6 percent indicated disagreement. Male students indicated 59.3 percent agreement and 36.9 percent disagreement.

Statement number ten: I would like for other students to be watched by video surveillance cameras. The male School B students possessed the highest percentage of agreement with 44.8 percent, whereas 48.6 percent indicated

Table 33

Cross Tabulation of VSCs Effect on Feelings of Privacy by Gender for School B Students (percentages)

Effect on Feelings of Privacy		Always	Sometimes	Seldom	Never	Not Sure
Being watched by video cameras would not bother me.						
TOTAL	N = 174	37.9	25.9	8.0	24.1	4.0
Male	N = 76	38.2	21.1	13.2	23.7	3.9
Female	N = 98	37.8	29.6	4.1	24.5	4.1
I would like for other students to be watched by video surveillance cameras.						
TOTAL	N = 174	20.7	21.3	12.6	37.9	7.5
Male	N = 76	22.4	22.4	11.8	36.8	6.6
Female	N = 98	19.4	20.4	13.3	38.8	8.2
I would notice the video cameras while I am in the hallway.						
TOTAL	N = 174	52.9	20.7	9.8	6.9	9.8
Male	N = 76	56.6	15.8	11.8	9.2	6.6
Female	N = 98	50.0	24.5	8.2	5.1	12.2
I would feel spied upon by video surveillance cameras.						
TOTAL	N = 174	59.5	18.5	8.1	12.7	1.2
Male	N = 76	56.6	19.7	9.2	13.2	1.3
Female	N = 98	61.9	17.5	7.2	12.4	1.0

Note: School B does not employ VSCs

disagreement. Female students indicated 39.8 percent agreement and 52.1 percent disagreement.

Statement number eleven: I would notice the video cameras while I am in the hallway. The female School B students possessed the highest percentage of agreement with 74.5 percent, whereas 13.3 percent indicated disagreement. Male students indicated 72.4 percent agreement and 21.0 percent disagreement.

Statement number twelve: I would feel spied upon by video surveillance cameras. The female School B students possessed the highest percentage of agreement with 79.4 percent, whereas 19.6 percent indicated disagreement. Male students indicated 76.3 percent agreement and 22.4 percent disagreement.

Comparison of School A Students and School B Students

Table 34 depicts cross tabulation of VSCs effect on feelings of privacy by grade level for both School A students and School B students. Table 35 depicts cross tabulation of VSCs effect on feelings of privacy by gender for both School A students and School B students.

Table 34

Cross Tabulation of VSCs Effect on Feelings of Privacy by Grade Level for School A Students and School B Students (percentages)

EFFECT ON FEELINGS OF PRIVACY	ALWAYS		SOMETIMES		SELDOM		NEVER		NOT SURE	
SCHOOL	A	B	A	B	A	B	A	B	A	B
Being watched by video cameras does [*would*] not bother me.										
Grade 6	42.1	39.4	11.8	19.7	9.2	9.9	31.6	28.2	5.3	2.8
Grade 7	20.7	40.0	20.7	30.0	13.8	5.0	27.6	25.0	17.2	0.0
Grade 8	34.1	35.5	36.6	30.6	9.8	8.1	14.6	17.7	4.9	8.1
I [*would*] like for other students to be watched by video surveillance cameras.										
Grade 6	22.4	23.9	25.0	21.1	11.8	8.5	32.9	36.6	7.9	9.9
Grade 7	19.0	20.0	22.4	15.0	22.4	15.0	25.9	42.5	10.3	7.5
Grade 8	17.1	17.7	12.2	25.8	12.2	16.1	39.0	35.5	19.5	4.8
I [*would*] notice the video cameras while I am in the hallway.										
Grade 6	34.2	53.5	17.1	16.9	7.9	12.7	36.8	8.5	3.9	8.5
Grade 7	44.8	57.5	27.6	20.0	10.3	5.0	17.2	7.5	0.0	10.0
Grade 8	53.7	48.4	19.5	25.8	12.2	9.7	12.2	4.8	2.4	11.3

Table 34 continued

EFFECT ON FEELINGS OF PRIVACY	ALWAYS		SOMETIMES		SELDOM		NEVER		NOT SURE	
SCHOOL	A	B	A	B	A	B	A	B	A	B
I [*would*] feel spied upon by video surveillance cameras.										
Grade 6	36.8	56.3	18.4	16.9	14.5	11.3	26.3	15.5	3.9	0.0
Grade 7	36.2	55.0	22.4	27.5	15.5	7.5	24.1	10.0	1.7	0.0
Grade 8	48.8	65.6	29.3	14.8	7.3	4.9	12.2	11.5	2.4	3.3

Note: School A employs VSCs
School B does not employ VSCs

Table 35

Cross Tabulation of VSCs Effect on Feelings of Privacy by Gender for School A Students and School B Students (percentages)

EFFECT ON FEELINGS OF PRIVACY	ALWAYS		SOMETIMES		SELDOM		NEVER		NOT SURE	
SCHOOL	A	B	A	B	A	B	A	B	A	B
Being watched by video cameras does [*would*] not bother me.										
Male	31.8	38.2	18.2	21.1	11.4	13.2	27.3	23.7	11.4	3.9
Female	34.5	37.8	23.0	29.6	11.5	4.1	24.1	24.5	6.9	4.1
I [*would*] like for other students to be watched by video surveillance cameras.										
Male	21.6	22.4	23.9	22.4	14.8	11.8	29.5	36.8	10.2	6.6
Female	18.4	19.4	18.4	20.4	16.1	13.3	34.5	38.8	12.6	8.2
I [*would*] notice the video cameras while I am in the hallway.										
Male	54.5	56.6	17.0	15.8	5.7	11.8	20.5	9.2	2.3	6.6
Female	29.9	50.0	25.3	24.5	13.8	8.2	28.7	5.1	2.3	12.2

Table 35 continued

EFFECT ON FEELINGS OF PRIVACY	ALWAYS		SOMETIMES		SELDOM		NEVER		NOT SURE	
SCHOOL	A	B	A	B	A	B	A	B	A	B
I [*would*] feel spied upon by video surveillance cameras.										
Male	44.3	56.6	17.0	19.7	13.6	9.2	22.7	13.2	2.3	1.3
Female	34.5	61.9	28.7	17.5	11.5	7.2	21.8	12.4	3.4	1.0

Note: School A employs VSCs
School B does not employ VSCs

Test of Independence for School A Students and School B Students

The Pearson chi-square test of independence was used to determine if any reason exists to believe that School A students respond differently from School B students on statements concerning privacy. Statement number nine: Being watched by video cameras does [*would*] not bother me. The Pearson chi-square value equals 6.66351. The observed significance level for a chi-square of 6.66351, with four degrees of freedom, is .1547. Chances are less than 154 in 1,000 that the variables are independent in the population. Differences between observed frequencies and expected frequencies probably occur by chance alone at the .05 level of significance. Retain the null hypothesis of independence at the .05 level. The researcher concludes that no significant relationship exists between school of attendance and attitudes toward not being bothered by camera surveillance (see Table 36).

Statement number ten: I [*would*] like for other students to be watched by video surveillance cameras. The Pearson chi-square value equals 2.83450. The observed significance level for a chi-square of 2.83450, with four degrees of freedom, is .5858. Chances are less than 585 in 1,000 that the variables are independent in the population. Differences between observed frequencies and expected frequencies probably occur by chance alone at the .05 level of

Table 36

Contingency Table for School of Attendance and Privacy - Statement Number Nine

Being watched by video cameras does [*would*] not bother me.

Count Expected Residual	**Always**	**Some-times**	**Seldom**	**Never**	**Not Sure**	Row Total
School A	58 61.6 -3.6	34 39.3 -5.3	20 16.9 3.1	44 42.8 1.2	16 11.4 4.6	172 49.7%
School B	66 62.4 3.6	45 39.7 5.3	14 17.1 -3.1	42 43.2 -1.2	7 11.6 -4.6	174 50.3%
Column Total	124 35.8%	79 22.8%	34 9.8%	86 24.9%	23 6.6%	346 100.0%

Chi-Square	**Value**	**df**	**Significance**
Pearson	6.66351	4	.1547

Note: School A employs VSCs
School B does not employ VSCs

significance. Retain the null hypothesis of independence at the .05 level. The researcher concludes that no significant relationship exists between school of attendance and attitudes toward other students being watched by VSCs (see Table 37).

Statement number eleven: I [*would*] notice the video cameras while I am in the hallway. The Pearson chi-square value equals 28.65764. The observed significance level for a chi-square of 28.65764, with four degrees of freedom, is .0000. Chances are less than one in 1,000 that the variables are independent in the population. Differences between observed frequencies and expected frequencies are beyond what could occur by chance alone at the .01 level of significance. Reject the null hypothesis of independence at the .01 level. The researcher concludes a significant relationship exists between school of attendance and attitudes toward noticing the VSCs while in the hallway (see Table 38).

Statement number twelve: I [*would*] feel spied upon by video surveillance cameras. The Pearson chi-square value equals 15.18127. The observed significance level for a chi-square of 15.18127, with four degrees of freedom, is .0043. Chances are less than four in 1,000 that the variables are independent in the population. Differences between observed frequencies and

Table 37

Contingency Table for School of Attendance and Privacy - Statement Number Ten

I [*would*] like for other students to be watched by video surveillance cameras.

Count Expected Residual	**Always**	**Some-times**	**Seldom**	**Never**	**Not Sure**	Row Total
School A	35 35.3 -.3	36 36.3 -.3	26 23.9 2.1	55 60.2 -5.2	20 16.4 3.6	172 49.7%
School B	36 35.7 .3	37 36.7 .3	22 24.1 -2.1	66 60.8 5.2	13 16.6 -3.6	174 50.3%
Column Total	71 20.5%	73 21.1%	48 13.9%	121 35.0%	33 9.5%	346 100.0%

Chi-Square	**Value**	**df**	**Significance**
Pearson	2.83450	4	.5858

Note: School A employs VSCs
School B does not employ VSCs

Table 38

Contingency Table for School of Attendance and Privacy - Statement Number Eleven

I [*would*] notice the video cameras while I am in the hallway.

Count Expected Residual	**Always**	**Some-times**	**Seldom**	**Never**	**Not Sure**	Row Total
School A	73 82.0 -9.0	37 36.3 .7	17 16.9 .1	42 26.8 15.2	3 9.9 -6.9	172 49.7%
School B	92 83.0 9.0	36 36.7 -.7	17 17.1 -.1	12 27.2 -15.2	17 10.1 6.9	174 50.3%
Column Total	165 47.7%	73 21.1%	34 9.8%	54 15.6%	20 5.8%	346 100.0%

Chi-Square	**Value**	**df**	**Significance**
Pearson	28.65764	4	.0000 *

* significant at the .01 level

Note: School A employs VSCs
School B does not employ VSCs

expected frequencies are beyond what could occur by chance alone at the .01 level of significance. Reject the null hypothesis of independence at the .01 level. The researcher concludes a significant relationship exists between school of attendance and attitudes toward feeling spied upon by VSCs (see Table 39).

School A Parents - Gender Cross Tabulation

The School A parent questionnaire required parents to respond to four statements regarding feelings of privacy at school A. Responses are reported by percentage of respondents. School A employs video surveillance cameras in hallways. Table 40 depicts cross tabulation of data by gender for School A parents.

Statement number nine: Having my child watched by video surveillance cameras does not bother me. Approximately 64 percent of School A parents either always agreed or sometimes agreed with statement number nine, whereas approximately 33 percent either seldom agreed or never agreed. The remaining 3.1 percent of School A parents indicated being not sure. Female parents possessed the highest percentage of agreement with 64.2 percent, whereas 34.4 percent indicated disagreement. Male School A parents indicated 62.0 percent agreement and 31.0 percent disagreement.

Table 39

Contingency Table for School of Attendance and Privacy - Statement Number Twelve

I [*would*] feel spied upon by video surveillance cameras.

Count Expected Residual	**Always**	**Some-times**	**Seldom**	**Never**	**Not Sure**	Row Total
School A	68 85.3 -17.3	39 35.4 3.6	22 17.9 4.1	38 29.9 8.1	5 3.5 1.5	172 49.9%
School B	103 85.7 17.3	32 35.6 -3.6	14 18.1 -4.1	22 30.1 -8.1	2 3.5 -1.5	173 50.1%
Column Total	171 49.6%	71 20.6%	36 10.4%	60 17.4%	7 2.0%	345 100.0%

Chi-Square	**Value**	**df**	**Significance**
Pearson	15.18127	4	.0043 *

* significant at the .01 level

Note: School A employs VSCs
School B does not employ VSCs

Table 40

Cross Tabulation of VSCs Effect on Feelings of Privacy by Gender for School A Parents (percentages)

Effect on Feelings of Privacy		Always	Sometimes	Seldom	Never	Not Sure
Having my child watched by video surveillance cameras does not bother me.						
TOTAL	N = 96	52.1	11.5	7.3	26.0	3.1
Male	N = 29	44.8	17.2	3.4	27.6	6.9
Female	N = 67	55.2	9.0	9.0	25.4	1.5
I feel good about having video surveillance cameras in my child's school.						
TOTAL	N = 96	79.2	10.4	2.1	1.0	7.3
Male	N = 29	72.4	10.3	3.4	3.4	10.3
Female	N = 67	82.1	10.4	1.5	0.0	6.0
I notice the video cameras while I am in the hallway.						
TOTAL	N = 96	7.3	13.5	17.7	40.6	20.8
Male	N = 29	13.8	24.1	10.3	34.5	17.2
Female	N = 67	4.5	9.0	20.9	43.3	22.4
I feel my child is being spied upon by video surveillance cameras.						
TOTAL	N = 96	7.3	6.3	16.7	65.6	4.2
Male	N = 29	17.2	10.3	24.1	44.8	3.4
Female	N = 67	3.0	4.5	13.4	74.6	4.5

Note: School A employs VSCs

Statement number ten: I feel good about having video surveillance cameras in my child's school. Approximately 90 percent of School A parents either always agreed or sometimes agreed with statement number ten, whereas approximately 3 percent either seldom agreed or never agreed. The remaining 7.3 percent of School A parents indicated being not sure. Female parents possessed the highest percentage of agreement with 92.5 percent, whereas 1.5 percent indicated disagreement. Male School A parents indicated 82.7 percent agreement and 6.8 percent disagreement.

Statement number eleven: I notice the video cameras while I am in the hallway. Approximately 21 percent of School A parents either always agreed or sometimes agreed with statement number eleven, whereas approximately 58 percent either seldom agreed or never agreed. The remaining 20.8 percent of School A parents indicated being not sure. Male parents possessed the highest percentage of agreement with 37.9 percent, whereas 44.8 percent indicated disagreement. Female School A parents indicated 13.5 percent agreement and 64.2 percent disagreement.

Statement number twelve: I feel my child is being spied upon by video surveillance cameras. Approximately 14 percent of School A parents either always agreed or sometimes agreed with statement number twelve, whereas approximately 82 percent either seldom agreed or never agreed. The remaining

4.2 percent of School A parents indicated being not sure. Male parents possessed the highest percentage of agreement with 27.5 percent, whereas 68.9 percent indicated disagreement. Female School A parents indicated 7.5 percent agreement and 88.0 percent disagreement.

School A Teachers - Gender Cross Tabulation

The School A teacher questionnaire required teachers to respond to four statements regarding feelings of privacy at School A. Responses are reported by percentage of respondents. School A employs video surveillance cameras in hallways. Table 41 depicts cross tabulation of data by gender for School A teachers.

Statement number nine: Being watched by video surveillance cameras does not bother me. Approximately 54 percent of School A teachers either always agreed or sometimes agreed with statement number nine, whereas approximately 37 percent either seldom agreed or never agreed. The remaining 8.0 percent of School A teachers indicated being not sure. Male teachers possessed the highest percentage of agreement with 57.1 percent, whereas 25.0 percent indicated disagreement. Female School A teachers indicated 53.3 percent agreement and 43.3 percent disagreement.

Table 41

Cross Tabulation of VSCs Effect on Feelings of Privacy by Gender for School A Teachers (percentages)

Effect on Feelings of Privacy		Always	Sometimes	Seldom	Never	Not Sure
Being watched by video surveillance cameras does not bother me.						
TOTAL	N = 89	40.9	13.6	6.8	30.7	8.0
Male	N = 28	35.7	21.4	3.6	21.4	17.9
Female	N = 61	43.3	10.0	8.3	35.0	3.3
I feel good about students being watched by video surveillance cameras.						
TOTAL	N = 89	61.8	23.6	7.9	3.4	3.4
Male	N = 28	57.1	25.0	3.6	7.1	7.1
Female	N = 61	63.9	23.0	9.8	1.6	1.6
I notice the video cameras while I am in the hallway.						
TOTAL	N = 89	10.1	21.3	28.1	39.3	1.1
Male	N = 28	7.1	25.0	39.3	25.0	3.6
Female	N = 61	11.5	19.7	23.0	45.9	0.0
I feel spied upon by video surveillance cameras.						
TOTAL	N = 89	2.2	12.4	15.7	67.4	2.2
Male	N = 28	0.0	10.7	21.4	64.3	3.6
Female	N = 61	3.3	13.1	13.1	68.9	1.6

Note: School A employs VSCs

Statement number ten: I feel good about students being watched by video surveillance cameras. Approximately 85 percent of School A teachers either always agreed or sometimes agreed with statement number ten, whereas approximately 11 percent either seldom agreed or never agreed. The remaining 3.4 percent of School A teachers indicated being not sure. Female teachers possessed the highest percentage of agreement with 86.9 percent, whereas 11.4 percent indicated disagreement. Male School A teachers indicated 82.1 percent agreement and 10.7 percent disagreement.

Statement number eleven: I notice the video cameras while I am in the hallway. Approximately 31 percent of School A teachers either always agreed or sometimes agreed with statement number eleven, whereas approximately 67 percent seldom agreed or never agreed. The remaining 1.1 percent of School A teachers indicated being not sure. Male teachers possessed the highest percentage of agreement with 32.1 percent, whereas 64.3 percent indicated disagreement. Female School A teachers indicated 31.2 percent agreement and 68.9 percent disagreement.

Statement number twelve: I feel spied upon by video surveillance cameras. Approximately 15 percent of School A teachers either always agreed or sometimes agreed with statement number twelve, whereas approximately 83 percent either seldom agreed or never agreed. The remaining 2.2 percent of

School A teachers indicated being not sure. Female teachers possessed the highest percentage of agreement with 16.4 percent, whereas 82.0 percent indicated disagreement. Male School A teachers indicated 10.7 percent agreement and 85.7 percent disagreement.

Research question number four: Will installation of additional video surveillance cameras decrease student misbehavior and increase school safety?

School A Parents - Gender Cross Tabulation

The School A parent questionnaire required parents to respond to one statement regarding their desire to install additional video surveillance cameras at School A. Responses are reported by percentage of respondents. School A employs video surveillance cameras in hallways. Table 42 depicts cross tabulation of data by gender for School A parents.

Statement number thirteen: Installing more video cameras in my child's school will reduce student misbehavior and increase school safety. Approximately 81 percent of School A parents either always agreed or sometimes agreed with statement number thirteen, whereas approximately 5 percent either seldom agreed or never agreed. The remaining 14.0 percent of School A parents indicated being not sure. Female parents possessed the highest percentage of agreement with 81.5 percent, whereas 1.5 percent indicated disagreement. Male School A parents indicated 78.6 percent agreement and 14.3 percent disagreement.

Table 42

Cross Tabulation of Desire to Install Additional VSCs by Gender for School A

Parents (percentages)

Desire to Install Additional VSCs		Always	Sometimes	Seldom	Never	Not Sure
Installing more video surveillance cameras in my child's school will reduce student misbehavior and increase school safety.						
TOTAL	N = 96	49.5	31.2	4.3	1.1	14.0
Male	N= 29	39.3	39.3	10.7	3.6	7.1
Female	N= 67	53.8	27.7	1.5	0.0	16.9

Note: School A employs VSCs

School A Teachers - Gender Cross Tabulation

The School A teacher questionnaire required teachers to respond to one statement regarding their desire to install additional video surveillance cameras at School A. Responses are reported by percentage of respondents. School A employs video surveillance cameras in hallways. Table 43 depicts cross tabulation of data by gender for School A teachers.

Statement number thirteen: Installing more video surveillance cameras in my school will reduce student misbehavior and increase school safety. Approximately 59 percent of School A teachers either always agreed or sometimes agreed with statement number thirteen, whereas approximately 16 percent either seldom agreed or never agreed. The remaining 24.7 percent of School A teachers indicated being not sure. Female teachers possessed the highest percentage of agreement with 62.3 percent, whereas 16.4 percent indicated disagreement. Male School A teachers indicated 53.5 percent agreement and 14.3 percent disagreement.

Table 43

Cross Tabulation of Desire to Install Additional VSCs by Gender for School A Teachers (percentages)

Desire to Install Additional VSCs		Always	Sometimes	Seldom	Never	Not Sure
Installing more video surveillance cameras in my school will reduce student misbehavior and increase school safety.						
TOTAL	N = 89	20.2	39.3	11.2	4.5	24.7
Male	N = 28	21.4	32.1	3.6	10.7	32.1
Female	N = 61	19.7	42.6	14.8	1.6	21.3

Note: School A employs VSCs

Summary of Findings

The four survey groups in this study, School A students, School B students, School A parents, and School A teachers, responded to twelve statements relating to three research questions. The School A parents and the School A teachers responded to one additional statement. In some cases, the exact wording of statements varies from survey to survey due to the specific characteristics of the response group.

The first group of survey statements required respondents to consider the effect of video surveillance cameras (VSCs) on perceptions of student behavior. The majority of the students, the parents, and the teachers agreed that students exhibit good behavior in the school hallways. Teachers (76 percent) provided the highest percentage of agreement. The lowest percentage of agreement came from School A students at 55 percent. Only parents (82 percent) strongly believed students behave better while being monitored by VSCs. School A students (44 percent), School B students (50 percent), and teachers (44 percent) indicated much less agreement. Approximately 26 percent of teachers indicated uncertainty regarding improved student behavior when monitored by VSCs. Parents (74 percent) strongly believed that the presence of VSCs prevents students from misbehaving. School A students (33 percent), School B students

(41 percent), and teachers (37 percent) indicated much less agreement. Approximately 19 percent of teachers and approximately 19 percent of School B students indicated ambivalence about the presence of VSCs preventing students from misbehaving. The majority of School A students (58 percent) reported that they behave better when monitored by VSCs. The majority of School B students (69 percent) reported that they *would* behave better if monitored by VSCs. Parents (67 percent) believed video surveillance monitoring improved their children's behavior. Teachers reported mixed attitudes with 36 percent indicating agreement, 33 percent indicating disagreement, and 31.5 percent indicating uncertainty.

The second group of survey statements required participants to consider the effect of VSCs on perceptions of safety. The majority of the students, the parents, and the teachers viewed hallways as safe before and after school. All four respondent groups indicated strong agreement, with the highest percentages reported by School B students (90 percent) and School A teachers (99 percent). The majority of the students, the parents, and the teachers viewed hallways as safe between classes. Teachers (97 percent) possessed the highest percentage of agreement, whereas parents (75 percent) expressed the lowest percentage of agreement. Parents (77 percent) strongly believed hallways monitored by VSCs

increase student safety. School A students (47 percent), School B students (46 percent), and teachers (55 percent) indicated much less agreement. A high percentage of teachers (27 percent) indicated being not sure about VSCs increasing safety in hallways. A majority of parents (81 percent) and teachers (68 percent) believed that VSCs make the school a safer place. School A students (48 percent) and School B students (52 percent) indicated much less agreement.

The third group of survey statements required respondents to consider the effect of VSCs on perceptions of privacy. A majority of students and teachers reported no concern about VSCs watching them. Parents indicated not being bothered by VSCs watching their children. The higher percentages of agreement came from School B students (64 percent) and from School A parents (64 percent). School A students (54 percent) and teachers (54 percent) provided the lower percentages of agreement. Only 41 percent of School A students and 42 percent of School B students favored VSCs watching other students. A majority of parents (90 percent) and teachers (85 percent) indicated that they feel good about VSCs monitoring student actions. Sixty-three percent of School A students reported noticing the VSCs while in the hallway. Seventy-four percent of School B students reported that they *would* notice the

VSCs while in the hallway. Only 21 percent of parents and 31 percent of teachers reported noticing the VSCs. Approximately 21 percent of parents indicated uncertainty about noticing the VSCs. The majority of School A students (62 percent) and School B students (78 percent) felt spied upon by VSCs. Barely 14 percent of parents agreed that their child was being spied upon by VSCs. Fourteen percent of the teachers indicated that they felt spied upon by video surveillance cameras.

The parent and the teacher surveys contained a thirteenth statement. That statement required respondents to indicate their interest in the installation of additional VSCs. Parents (81 percent) and teachers (59 percent) favored the installation of additional VSCs to reduce student misbehavior and increase school safety.

The cross tabulation of School A student responses by gender and grade level revealed no differences in the student responses. Similarly, the cross tabulation of School B student responses by gender and grade level found no differences in the student responses. The cross tabulation of School A parent responses by gender revealed no differences in the parent responses. Finally, the cross tabulation of School A teacher responses by gender found no differences in the teacher responses.

The researcher compared the responses of School A students and School B students by employing the Pearson chi-square test of independence. Large significance levels associated with Pearson chi-square values existed for the cross tabulations of student survey statements numbers four, six, seven, eight, nine, and ten. These results indicated no significant relationship existed between students' responses to the statements and students' school of attendance. The differences between observed response frequencies and expected response frequencies probably occur by chance alone.

Small significance levels associated with Pearson chi-square values existed for the cross tabulations of student survey statements numbers one, two, three, five, eleven, and twelve. The researcher concludes significant relationships existed between the students' responses to the statements and the students' school of attendance. The strength and degree of association between the survey statements and the school of attendance remains unknown. This researcher assumes an unknown factor or factors caused the differences between the observed response frequencies and the expected response frequencies for survey statements numbers one, two, three, five, eleven, and twelve. The presence of VSCs in School A and the absence of VSCs in School B may or may not effect the attitudes of students toward video surveillance monitoring in middle school hallways.

CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

This chapter presents a review of the study conducted, a summary of the findings, the conclusions, and the researcher's recommendations for further study. The review of the study includes the purpose, the research questions, and the methods of research. The second section presents a summary of the findings as derived from the data analysis. The next section contains conclusions. Recommendations for further research follow the conclusions.

Review of the Study

Employing video surveillance cameras (VSCs) in hallways represents one intervention to decrease student misbehavior and increase school safety. One middle school planning council decided to install five VSCs in hallways where student behavior problems most frequently occurred. VSCs began operating on the first day of school during the 1995-96 school term.

In the educational field, little research exists regarding VSCs as a method of curbing student misbehavior. Student, parent, and teacher perceptions of

video surveillance monitoring are essentially unknown. This study examines the effect, if any, of the presence of VSCs on attitudes toward student behavior, school safety, and feelings of privacy. Video surveillance cameras may be an effective method of increasing safety and encouraging appropriate student behavior. The research questions answered by this study follow:

1. Do VSCs effect student, parent, and teacher perceptions of student behavior?
2. Do VSCs effect student, parent, and teacher perceptions of school safety?
3. Do VSCs effect feelings of privacy?
4. Will installation of additional VSCs decrease student misbehavior and increase school safety?

This study is limited in scope to the students, parents, and teachers of one middle school and the students of another middle school. The first school utilizes VSCs in hallways, the second does not.

The researcher employed descriptive survey and analysis techniques. Thirty-two homeroom classes were randomly selected for participation. The student samples consisted of the 175 School A students and the 174 School B students who returned a signed consent form. The parent sample consisted of

96 School A parents who indicated a willingness to participate. Eighty-nine School A teachers consented to participation.

The survey instrument sought information concerning the effect of VSCs on attitudes toward student behavior, school safety, and feelings of privacy. Participants' response sheets were electronically scanned to calculate response percentages. The Microtest Survey computer program generated cross tabulation data and the Statistical Program for the Social Sciences (SPSS) 6.1 Base System provided chi-square analysis.

Summary

School A students and School B students express similar attitudes toward video surveillance cameras' (VSCs) effect on student behavior. Both report good behavior in the hallways of their schools. The students believe VSCs fail to encourage better student behavior and fail to prevent other students from misbehaving. Students think that VSCs improve their personal behavior. The majority of School A parents believe students behave in hallways and behave better in hallways monitored by VSCs. Parents assume VSCs prevent students from misbehaving. Parents indicate their child behaves better while monitored by VSCs or they indicate uncertainty. School A Teachers report good student

behavior in the hallways. Teachers express ambivalence over VSCs improving their students' behavior or other students' behavior. Concerning VSCs preventing misbehavior, more teacher disagreement and uncertainty exist than agreement.

The question of VSCs increasing school safety divides adults and students. The majority of respondents in all groups rate hallways safe before school, after school, and between classes. Neither student group expresses the belief that VSCs increase safety in hallways and throughout the school. Parents overwhelmingly believe safety increases in the presence of VSCs. Teachers believe VSCs generally increase safety throughout the school. When considering hallway safety for themselves, teachers feel either safer while monitored by VSCs or they feel ambivalent.

All groups expressed similar levels of comfort about VSCs monitoring their actions or their child's actions. The parents indicate more favorable attitudes toward monitoring of other children than monitoring of their own children. Similarly, teachers indicate more favorable attitudes toward monitoring of students than monitoring of themselves. The majority of students notice or believe they would notice VSCs. The majority of parents and teachers indicate they fail to notice the cameras. Both student groups feel spied upon by video surveillance cameras. Neither parents nor teachers feel they or

their children are spied upon. This statement evokes the greatest certainty among all respondents as evidenced by consistently low "not sure" responses. School B students and School A parents, groups not monitored by VSCs, express more uncertainty about the presence of VSCs than School A students and School A teachers.

Parents and teachers express either support or uncertainty when considering additional video surveillance cameras. Few teachers and fewer parents reject installation of additional VSCs to decrease student misbehavior and increase school safety.

Students suggest that video surveillance cameras may not affect student behavior and school safety, although VSCs may improve their personal behavior. The students feel VSCs invade their privacy. Parents maintain VSCs will improve student behavior and school safety. Teachers remain ambivalent concerning the effect of VSCs. Parents and teachers do not feel VSCs invade people's privacy. The adult groups desire installation of more video surveillance cameras in the school.

Conclusions

Based on the findings from this research, the researcher concludes:

1. Student attitudes reveal certain ambivalence regarding the presence of VSCs in middle school hallways. The students believe the cameras affect their personal behavior, but not the behavior of others. Whereas, students do not consider video camera surveillance overly intrusive, they do feel spied upon by the cameras.
2. Parents demonstrate strong support for video surveillance programs. They do not find the video cameras intrusive.
3. Teachers exhibit uncertainty toward video camera monitoring, but do not see it as an intrusive measure of surveillance.
4. Overall, no significant difference exists between the attitudes of students in the school with surveillance cameras and the attitudes of students in the school without surveillance cameras.

Discussion

Several issues and limitations remain concerning this study of video surveillance monitoring in middle school hallways. First, the dissimilar configurations of the School A and the School B facilities may have posed problems for comparison of student attitudes toward VSCs. The School A building contains features not found in School B. The School A facility includes many wide hallways, several large group meeting spaces, a large auditorium, and a large indoor athletic area. The School B facility contains few amenities. The School B hallways are narrow, group meeting areas are limited, and the cafeteria doubles as the auditorium. Additionally, the School B design includes three buildings attached by exterior canopies. The design characteristics of the two schools may have influenced attitudes toward student behavior and school safety.

Middle school students' attitudes toward VSCs may be influenced to a degree, by the presence of video surveillance monitoring in shopping malls, department stores, banks, and fast food restaurants. The prevalence of video cameras in public areas may have conditioned the responses of students in both School A and School B.

The School A parent representatives initiated, planned, and funded the video surveillance program. The level of involvement by the School A parent

representatives may account for the overwhelming parental support of VSCs. Whether parents will support an administration or faculty initiated video surveillance program remains unknown.

School A introduced other security interventions simultaneously with the implementation of their video surveillance program. These interventions included implementation of the school within a school concept, designation of restricted student areas, and reduction of concurrent changing of classes by different grade levels. During this study, no controls existed to restrict the influence of these security interventions on the attitudes toward student behavior and school safety.

Finally, this study focused on perceptions of the video surveillance cameras as opposed to the reality of what actually occurred after the installation of the cameras. It is unknown whether VSCs reduced student misbehavior and increased school safety at School A.

Recommendations for Further Study

The results of this study contribute to the growing body of research concerning VSCs in school settings. These findings may prove beneficial to schools contemplating implementation of a video surveillance program. Due to the scarcity of video surveillance research, similar studies would be helpful to administrators concerned with improving school security. The succeeding paragraphs detail recommendations for further study.

Any future survey research needs to include school administrators in the population. Administrators' attitudes toward VSCs are essentially unknown. This group could provide another perspective.

This study should be replicated in various grade levels and in other types of communities. Research results may reveal differences in attitudes toward video surveillance monitoring at the elementary and high school levels. Replication of this study in other communities may demonstrate different attitudes toward VSCs in rural, urban and suburban settings.

To gain a more definitive picture of student, parent, and teacher attitudes, surveys need to be conducted prior to and following installation of VSCs. A detailed analysis could determine if attitudes toward student behavior,

school safety, and feelings of privacy change after implementation of a video surveillance program.

An experimental study should be conducted. Experimental research could measure the incidents of student misbehavior before and after implementation of a video surveillance program. Certain field specifications are necessary, however, to create a successful experimental situation. First, student discipline data must be collected prior to and after the implementation of a video surveillance program. This facilitates examination of student misconduct by rate of occurrence and by location of occurrence. Second, other security interventions must be controlled to eliminate their influence on the results of the study. Finally, the study must be conducted in a school where VSCs are installed in all corridors. This may prevent the transfer of student misbehavior from corridors with VSCs to corridors without VSCs.

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Appendix A

Informed Consent Agreement Forms

STUDENT INFORMED CONSENT AGREEMENT

School A

Project: Attitudes Toward Video Surveillance Cameras

Investigator: Charles Spivey

PURPOSE OF THE PROJECT

Acts of violence and student misbehavior in our nation's schools are widely documented. In response, some schools employ video surveillance cameras in their hallways. Student perceptions of video surveillance monitoring are essentially unknown. During the spring of 1995, the School A Planning Council sought funding for installation of video surveillance cameras in school hallways. The School A Parent Teacher Association (PTA) purchased necessary equipment. The school and the PTA agreed to install the cameras in four areas believed to be difficult to monitor. This study seeks to answer the question: Do video surveillance cameras in middle school hallways effect student attitudes toward the school?

PROCEDURES

Sixteen of School A's homeroom classes were selected to participate in this survey. Homeroom teachers distributed consent forms to their students. Students were directed to take consent forms home and return them signed by

their parent. The student sample consists of those students who return a signed consent form. Thirteen percent of the student body, 175 School A students, will complete a twelve question survey administered by their homeroom teacher during the regularly scheduled advisory period. The questionnaire will require about ten minutes to complete. Absent students, and those without parental consent, will be excluded from participation.

RISKS, BENEFITS, AND ANONYMITY

Students will remain free from anticipated risks (not harmed in any way). There are no direct benefits to students for participating in this study. Indirectly, students will assist the administration in evaluating video surveillance monitoring. No rewards will be offered. Student respondents will remain anonymous because student names will not be recorded and answer sheets will not be coded.

PARTICIPATION AND WITHDRAWAL

Participation in this project is completely voluntary. You may withdraw from this study, without penalty, simply by informing your advisory teacher. If you have questions, please contact Dr. Glen Earthman, 213 East Eggleston, Virginia Tech, Blacksburg, VA, 24061.

APPROVAL OF RESEARCH

Approval for this project has been granted by the Virginia Beach City School Board and the Institutional Review Board for Research Involving Human Subjects at Virginia Tech.

SUBJECT'S PERMISSION

I have read and understand the Informed Consent and conditions of this project. I hereby acknowledge the above and give my voluntary consent for participation in this project. A duplicate of this signed consent will be returned to participants.

_____

Student Signature

_____ _____ _____

Parent Signature Date Adult Witness Signature

STUDENT INFORMED CONSENT AGREEMENT

School B

Project: Attitudes Toward Video Surveillance Cameras

Investigator: Charles Spivey

PURPOSE OF THE PROJECT

Acts of violence and student misbehavior in our nation's schools are widely documented. In response, some schools employ video surveillance cameras in their hallways. Student perceptions of video surveillance monitoring are essentially unknown. During the spring of 1995, one middle school planning council sought funding for installation of video surveillance cameras in school hallways. The school's Parent Teacher Association (PTA) purchased the necessary equipment. The school and the PTA agreed to install the cameras in areas believed to be difficult to monitor. This study seeks to answer the question: Do video surveillance cameras in middle school hallways effect student attitudes toward their school?

PROCEDURES

Sixteen of School B's homeroom classes were selected to participate in this survey. Homeroom teachers distributed consent forms to their students. Students were directed to take consent forms home and return them signed by

their parent. The student sample consists of those students who return a signed consent form. Thirteen percent of the student body, 174 School B students, will complete a twelve question survey administered by their homeroom teacher during the regularly scheduled advisory period. The questionnaire will require about ten minutes to complete. Absent students, and those without parental consent, will be excluded from participation.

RISKS, BENEFITS, AND ANONYMITY

Students will remain free from anticipated risks (no harm in any way). There are no direct benefits to students for participating in this study. Indirectly, students will assist the administration in evaluating video surveillance monitoring. No rewards will be offered. Student respondents will remain anonymous because student names will not be recorded and answer sheets will not be coded.

PARTICIPATION AND WITHDRAWAL

Participation in this project is completely voluntary. You may withdraw from this study, without penalty, simply by informing your advisory teacher. If you have questions, please contact Dr. Glen Earthman, 213 East Eggleston, Virginia Tech, Blacksburg, VA, 24061.

APPROVAL OF RESEARCH

Approval for this project has been granted by the Virginia Beach City School Board and the Institutional Review Board for Research Involving Human Subjects at Virginia Tech.

SUBJECT'S PERMISSION

I have read and understand the Informed Consent and conditions of this project. I hereby acknowledge the above and give my voluntary consent for participation in this project. A duplicate of this signed consent will be returned to participants.

_____

Student Signature

_____ _____ _____

Parent Signature Date Adult Witness Signature

PARENT INFORMED CONSENT AGREEMENT

Project: Attitudes Toward Video Surveillance Cameras

Investigator: Charles Spivey

PURPOSE OF THE PROJECT

Acts of violence and student misbehavior in our nation's schools are widely documented. In response, some schools employ video surveillance cameras in their hallways. During the spring of 1995, the School A Planning Council sought funding for installation of video surveillance cameras in school hallways. The School A Parent Teacher Association (PTA) purchased necessary equipment. The school and the PTA agreed to install the cameras in four areas believed to be difficult to monitor. This study seeks to answer the question: Do video surveillance cameras in middle school hallways effect student attitudes toward the school?

PROCEDURES

Sixteen of School A's homeroom classes were selected to participate in this survey. Homeroom teachers distributed consent forms to their students. School A students were directed to take consent forms home and return them signed by a parent. The parent sample consists of those School A parents who

return a signed consent form. Approximately ten percent of School A parents will return a response sheet for the thirteen question parent survey.

RISKS, BENEFITS, AND ANONYMITY

Parents will remain free from anticipated risks (not harmed in any way). There are no direct benefits to parents for participating in this study. Indirectly, parents will assist the administration in evaluating video surveillance monitoring. No rewards will be offered. Parent respondents will remain confidential through the use of a response coding system.

PARTICIPATION AND WITHDRAWAL

Participation in this project is completely voluntary. Parents may withdraw from this study, without penalty, simply by informing your child's teacher. If you have questions, please contact Dr. Glen Earthman, 213 East Eggleston, Virginia Tech, Blacksburg, VA, 24061.

APPROVAL OF RESEARCH

Approval for this project has been granted by the Virginia Beach City School Board and the Institutional Review Board for Research Involving Human Subjects at Virginia Tech.

SUBJECT'S PERMISSION

I have read and understand the Informed Consent and conditions of this project. I hereby acknowledge the above and give my voluntary consent for participation in this project. A duplicate of this signed consent will be returned to participants.

Parent Signature	Date	Witness Signature

TEACHER INFORMED CONSENT AGREEMENT

Project: Attitudes Toward Video Surveillance Cameras

Investigator: Charles Spivey

PURPOSE OF THE PROJECT

Acts of violence and student misbehavior in our nation's schools are widely documented. In response, some schools employ video surveillance cameras in their hallways. During the spring of 1995, the School A Planning Council sought funding for installation of video surveillance cameras in school hallways. The School A Parent Teacher Association (PTA) purchased necessary equipment. The school and the PTA agreed to install the cameras in four areas believed to be difficult to monitor. This study seeks to answer the question: Do video surveillance cameras in middle school hallways effect student attitudes toward the school?

PROCEDURES

The entire faculty of School A will participate in this survey. Ninety-eight School A teachers will complete a thirteen question teacher survey during a scheduled faculty meeting. The teacher sample consists of those School A teachers present at the faculty meeting.

RISKS, BENEFITS, AND ANONYMITY

Teachers will remain free from anticipated risks (not harmed in any way). There are no direct benefits to teachers for participating in this study. Indirectly, teachers will assist the administration in evaluating video surveillance monitoring. No rewards will be offered. Teacher respondents will remain anonymous because teacher names will not be recorded and answer sheets will not be coded.

PARTICIPATION AND WITHDRAWAL

Participation in this project is completely voluntary. Teachers may withdraw from this study, without penalty, simply by informing the investigator. If you have questions, please contact Dr. Glen Earthman, 213 East Eggleston, Virginia Tech, Blacksburg, VA, 24061.

APPROVAL OF RESEARCH

Approval for this project has been granted by the Virginia Beach City School Board and the Institutional Review Board for Research Involving Human Subjects at Virginia Tech.

SUBJECT'S PERMISSION

I have read and understand the Informed Consent and conditions of this project. I hereby acknowledge the above and give my voluntary consent for participation in this project. A duplicate of this signed consent will be returned to participants.

Teacher Signature	Date	Witness Signature

Appendix B

Surveys

School A
Student Survey

The purpose of this survey is to provide you with an opportunity to share with the administration and Virginia Polytechnic Institute your thoughts about video surveillance cameras. Your responses to these questions will help us to evaluate video cameras as tools for monitoring school hallways. Thank you for your help.

DIRECTIONS

Do not record your name. This survey has two parts. Record your responses on the **blue answer sheet** using a **# 2 pencil**. Be careful not to bend or tear the answer sheet. When finished, return your answer sheet to your teacher.

PART I. Find the *Special Codes* section on the blue answer sheet.

Column A. In the blank box under the letter " **A,**" write your *grade level* **(6, 7, or 8)** and then fill in completely the corresponding circle in the column below the box.

Column B. In the blank box under the letter " **B,**" write the number indicating whether you are a *male* **(0)** or a *female* **(1)**. Fill in completely the corresponding circle in the column below the box.

Column C. In the blank box under letter " **C,**" write the number that indicates your *academic performance* in your classes. Fill in completely the corresponding circle in the column below the box.

0 - *Well above average* *(A's and B's)*
1 - *Above average* *(B's and C's)*
2 - *Average* *(C's)*
3 - *Below Average* *(C's and D's)*
4 - *Well below average* *(D's and E's)*

Column D. In the blank box under letter " **D,**" write the number of times you have been *disciplined by a principal this year*. Disciplined includes warning, administrative detention, Saturday detention, ISS, and OSS. Fill in completely the corresponding circle in the column below the box.

0 - *0 times*
1 - *1 time*
2 - *2 times*
3 - *3 times*
4 - *4 or more times*

PART II. This part asks you to read a series of statements describing some part of school safety at School A. To indicate how you feel about each statement, select your response from the response choices listed at the top of this page. Fill in the corresponding circle on the blue answer sheet. If you do not have any feelings or do not understand the question, you should indicate this by filling in circle " **E** ."

RESPONSE CHOICES

A = Always
B = Sometimes
C = Seldom
D = Never
E = Not Sure

1. Students are well behaved when in the hallways of our school.
2. Students behave better in hallways monitored by video surveillance cameras.
3. Students are prevented from misbehaving by video surveillance cameras.
4. I behave better while being monitored by the video surveillance cameras.
5. I feel safe in the halls before and after school.
6. I feel safe in the halls between classes.
7. I feel safer in hallways monitored by video surveillance cameras.
8. Video surveillance cameras make my school a safer place.
9. Being watched by video cameras does not bother me.
10. I like for other students to be watched by video surveillance cameras.
11. I notice the video cameras while I am in the hallway.
12. I feel spied upon by video surveillance cameras.

School B
Student Survey

The purpose of this survey is to provide you with an opportunity to share with the administration and Virginia Polytechnic Institute your thoughts about video surveillance cameras. Your responses to these questions will help us to evaluate video cameras as tools for monitoring school hallways. Thank you for your help.

DIRECTIONS

Do not record your name. This survey has two parts. Record your responses on the **blue answer sheet** using a **# 2 pencil**. Be careful not to bend or tear the answer sheet. When finished, return your answer sheet to your teacher.

PART I. Find the *Special Codes* section on the blue answer sheet.

Column A. In the blank box under the letter " **A,**" write your *grade level* **(6, 7, or 8)** and then fill in completely the corresponding circle in the column below the box.

Column B. In the blank box under the letter " **B,**" write the number indicating whether you are a *male* **(0)** or a *female* **(1)**. Fill in completely the corresponding circle in the column below the box.

Column C. In the blank box under letter " **C,**" write the number that indicates your *academic performance* in your classes. Fill in completely the corresponding circle in the column below the box.

0 - *Well above average* *(A's and B's)*
1 - *Above average* *(B's and C's)*
2 - *Average* *(C's)*
3 - *Below Average* *(C's and D's)*
4 - *Well below average* *(D's and E's)*

Column D. In the blank box under letter " **D,**" write the number of times you have been *disciplined by a principal this year*. Disciplined includes warning, administrative detention, Saturday detention, ISS, and OSS. Fill in completely the corresponding circle in the column below the box.

0 - *0 times*
1 - *1 time*
2 - *2 times*
3 - *3 times*
4 - *4 or more times*

PART II. This part asks you to read a series of statements describing some part of school safety at School B. To indicate how you feel about each statement, select your response from the response choices listed at the top of this page. Fill in the corresponding circle on the blue answer sheet. If you do not have any feelings or do not understand the question, you should indicate this by filling in circle " **E** ."

RESPONSE CHOICES

A = Always
B = Sometimes
C = Seldom
D = Never
E = Not Sure

1. Students are well behaved when in the hallways of our school.
2. Students would behave better in hallways monitored by video surveillance cameras.
3. Students would be prevented from misbehaving by video surveillance cameras.
4. I would behave better while being monitored by the video surveillance cameras.
5. I feel safe in the halls before and after school.
6. I feel safe in the halls between classes.
7. I would feel safer in hallways monitored by video surveillance cameras.
8. Video surveillance cameras would make my school a safer place.
9. Being watched by video cameras would not bother me.
10. I would like for other students to be watched by video surveillance cameras.
11. I would notice the video cameras while in the hallway.
12. I would feel spied upon by video surveillance cameras.

School A
Parent Survey

The purpose of this survey is to provide you with an opportunity to share with the administration and Virginia Polytechnic Institute your thoughts about video surveillance cameras. Your responses to these questions will help us to evaluate video cameras as tools for monitoring school hallways. Thank you for your help.

DIRECTIONS

Do not record your name. This survey has two parts. Record your responses on the **blue answer sheet** using a **# 2 pencil**. Be careful not to bend or tear the answer sheet. When finished, place the answer sheet in the envelope and return to school by your child.

PART I. Find the *Special Codes* section on the blue answer sheet.

Column A. In the blank box under the letter " **A,**" write the number indicating whether you are a *male* (**0**) or a *female* (**1**). Fill in completely the corresponding circle in the column below the box.

PART II. This part asks you to read a series of statements describing some part of school safety at School A. To indicate how you feel about each statement, select your response from the response choices listed below. Fill in the corresponding circle on the blue answer sheet. If you do not have any feelings or do not understand the question, you should indicate this by filling in circle " **E .**"

RESPONSE CHOICES

A = Always
B = Sometimes
C = Seldom
D = Never
E = Not Sure

1. Students are well behaved while in the school hallways.

2. Students behave better in hallways monitored by video surveillance cameras.

3. Students are prevented from misbehaving by video surveillance cameras.

4. My child behaves better while being monitored by video surveillance cameras.

5. My child is safe in the halls before and after school.
6. My child is safe in the halls between classes.
7. My child is safer in hallways monitored by video surveillance cameras.
8. Video surveillance cameras make the school a safer place.
9. Having my child watched by video surveillance cameras does not bother me.
10. I feel good about having video surveillance cameras in my child's school.
11. I notice the video cameras while I am in the hallway.
12. I feel my child is being spied upon by video surveillance cameras.
13. Installing more video surveillance cameras in my child's school will reduce student misbehavior and increase school safety.

School A
Teacher Survey

The purpose of this survey is to provide you with an opportunity to share with the administration and Virginia Polytechnic Institute your thoughts about video surveillance cameras. Your responses to these questions will help us to evaluate video cameras as tools for monitoring school hallways. Thank you for your help.

DIRECTIONS

Do not record your name. This survey has two parts. Record your responses on the **blue answer sheet** using a **# 2 pencil**. Be careful not to bend or tear the answer sheet. When finished, submit your answer sheet to the survey administrator.

PART I. Find the *Special Codes* section on the blue answer sheet.

Column A. In the blank box under the letter " **A,**" write the number indicating whether you are a *male* (**0**) or a *female* (**1**). Fill in completely the corresponding circle in the column below the box.

PART II. This part asks you to read a series of statements describing some part of school safety at School A. To indicate how you feel about each statement, select your response from the response choices listed below. Fill in the corresponding circle on the blue answer sheet. If you do not have any feelings or do not understand the question, you should indicate this by filling in circle " **E .**"

RESPONSE CHOICES

A = Always
B = Sometimes
C = Seldom
D = Never
E = Not Sure

1. Students are well behaved while in the school hallways.

2. Students behave better in hallways monitored by video surveillance cameras.

3. Students are prevented from misbehaving by video surveillance cameras.

4. My students behave better while being monitored by video surveillance cameras.
5. I feel safe in the halls before and after school.
6. I feel safe in the halls between classes.
7. I am safer in hallways monitored by video surveillance cameras.
8. Video surveillance cameras make the school a safer place.
9. Being watched by video surveillance cameras does not bother me.
10. I feel good about students being watched by video surveillance cameras.
11. I notice the video cameras while I am in the hallway.
12. I feel spied upon by video surveillance cameras.
13. Installing more video surveillance cameras in my school will decrease student misbehavior and increase school safety?

Appendix C

Student Survey Administration Directions

STUDENT SURVEY ADMINISTRATION DIRECTIONS

Distributing the Informed Consent Agreement Form

- Advisory period teachers attend an orientation session to receive directions and copies of the student Informed Consent Agreement form.
- Advisory period teachers distribute forms to students on Monday during the scheduled advisory period.
- Explain to students the purpose of the project and familiarize them with the concept of video surveillance monitoring.
- Direct students to take the consent form home and return it signed by their parent. Make sure students understand they will not be permitted to participate in the survey unless a signed consent form is returned to the teacher.
- Encourage students to return a signed consent form by the next school day.
- Collect signed consent forms on Tuesday, Wednesday, and Thursday.
- Check each consent form to ensure that it has three signatures.

Administering the Student Survey

- Advisory period teachers attend a training session to receive survey administration directions and materials.
- Each advisory period teacher receives a large manila packet containing these materials: 20 student survey sheets, 20 blue answer sheets, and five #2 pencils -- contact the researcher if you need additional materials.
- REMEMBER, students may participate only if they have returned a signed parental consent form -- an alternative advisory period activity should be assigned to non-participating students.
- Distribute the materials and make sure each student uses a #2 pencil.
- Read the survey directions aloud and answer student questions -- remind students to turn over the survey sheet to complete Part II. Because the researcher is interested attitudes, students should understand that there are no right or wrong responses.
- Contact the researcher, located in the main office, if you need assistance.
- Teachers collect and place in the large manila envelope the following items: signed Informed Consent Agreement forms, student survey sheets, blue answer sheets, and five #2 pencils.
- The large manila envelope will be collected by the researcher.

Appendix D

Correspondence

SCHOOL A

November 27, 1996

TO: Selected Advisory Period Teachers

FROM: Charles Spivey

SUBJECT: Survey Research Project

I am writing to ask for your assistance in helping me complete degree requirements for the doctoral program at Va Tech. The survey research I wish to conduct has been approved by your principal, Mr. Walker, and the School Board of Virginia Beach City Public Schools.

Your advisory period class was randomly selected to participate in a survey regarding student attitudes toward video surveillance monitoring in middle school hallways. Participation in this project is strictly voluntary and requires each student to return a signed consent agreement form. You can help by distributing consent forms to your students, collecting returned forms, and administering the twelve question survey to your advisory period class.

Please meet with me and a group of your colleagues on Monday, December 2, at 7:40 a.m. in the school library. If you are unable to assist with this project, contact me as soon as possible, so other arrangements may be made. Otherwise, I look forward to meeting with you to discuss the project.

SCHOOL A

3080 South Lynnhaven Road Virginia Beach, VA 23452
Telephone: 431-4060 Guidance: 431-4063

November 27, 1996

Advisory Period Teacher
School B
Virginia Beach, VA

Dear Advisory Period Teacher:

I am writing to introduce myself and to ask for your assistance in helping me complete degree requirements for a doctoral program at Va Tech. My name is Charles Spivey and I work as an assistant principal at School A. The survey research I wish to conduct has been approved by your principal, Dr. Eidson, and the School Board of Virginia Beach City Public Schools.

Your advisory period class was randomly selected to participate in a short survey regarding student attitudes toward video surveillance monitoring in middle school hallways. Participation in this project is strictly voluntary and requires each student to return a signed consent agreement form. You can help by distributing consent forms to your students, collecting returned forms, and administering the twelve question survey to your advisory period class.

Please meet with me and a group of your colleagues on Monday, December 9, at 7:40 a.m. in your school library. If you are unable to assist with this project, contact Dr. Eidson as soon as possible, so other arrangements can be made. Otherwise, I look forward to meeting with you to discuss the project.

Respectfully,

Charles Spivey

SCHOOL A

3080 South Lynnhaven Road Virginia Beach, VA 23452
Telephone: 431-4060 Guidance: 431-4063

December 9, 1996

Dear Parent or Caregiver:

Earlier you indicated your willingness to participate in the survey research I am conducting as a doctoral student at Va Tech. In 1995, the School A Planning Council, in cooperation with the school's Parent-Teacher Association, implemented a video surveillance program by placing security cameras in four hallway locations. The study seeks to evaluate attitudes toward video surveillance monitoring in middle school hallways. This survey has been approved by the School Board of Virginia Beach City Public Schools.

Please read the enclosed parent survey and record your responses on the blue answer sheet by filling in the appropriate circle with a #2 pencil. Be sure to answer the questions located on the reverse side. When finished, put the blue answer sheet in the postage paid return envelope and mail it through the U. S. Postal Service.

Thank you for assisting with this research.

Respectfully,

Charles Spivey

SCHOOL A

3080 South Lynnhaven Road Virginia Beach, VA 23452
Telephone: 431-4060 Guidance: 431-4063

December 19, 1996

Dear Parent or Caregiver:

As you may recall, you previously indicated a desire to participate in the survey research that I am conducting. Last week, students were given a yellow envelope containing survey materials with instructions to deliver the envelope to their parent. Parents were requested to return a blue response sheet. However, some of the survey response sheets have not been received.

I would be most grateful if you would take a few minutes to read the enclosed parent survey and record your responses on the blue response sheet. Be sure to answer the questions located on the reverse side. When finished, put the blue response sheet in the postage paid return envelope and mail it through the U. S. Postal Service.

If you have already responded to the survey, please accept my apology for disturbing you during this busy time of the year.

Thank you for assisting me with my research. I wish you and your family a joyous and peaceful holiday season.

Respectfully,

Charles Spivey

PLAZA MIDDLE SCHOOL

3080 South Lynnhaven Road Virginia Beach, VA 23452
Telephone: 431-4060 Guidance: 431-4063

January 2, 1997

Dear Parent or Caregiver:

Please take a few minutes, if you have not already done so, to answer the video surveillance questionnaire that I recently sent to your home. The survey is brief, requiring perhaps five to ten minutes of your time. The confidential information you provide will be used to help us make good decisions regarding school safety and will assist me with fulfillment of advanced degree requirements.

Should you prefer to respond to the survey over the telephone, call 431-4060 and ask for Ms. Fitzsimmons, Ms. Maxwell or me. We will gladly record your confidential responses for you.

You may also choose to complete the survey and return it to school by your child. Your child may drop the response sheet by the school office or give it to the HOMEbase teacher.

Thank you for assisting me in this endeavor. I look forward to hearing from you soon.

Respectfully,

Charles Spivey

Appendix E

Human Subjects Approval

Virginia Beach City Public Schools

November 20, 1996

Charles Spivey
Plaza Middle School
(Inside Mail)

Dear Charles:

The school board approved your request to conduct research at it's November 19 meeting. I have included a copy of your proposal which indicates some reviewer comments. While you do not need to address these comments, they may be of use to you as you proceed with your study. We look forward to seeing the results.

Sincerely,

E. Sidney Vaughn, III. Ed. D.
Research Specialist

ESV/twt

Attachment

School Administration Building ▼ 2512 George Mason Drive ▼ P.O. Box 6038 ▼ Virginia Beach, VA ▼ 23456-0038

Appendix F

Selected Bibliography

Selected Bibliography

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Appendix G

Calendar of Significant Events

Calendar of Significant Events

MONTH	*DAY*	*EVENT*
July	15	Develop topic; submit Chapter I
July	24	Hold first committee meeting
July	31	Submit Chapter III
August	23	Secure second middle school
October	15	Submit request for human subject's study
October	15	Submit questionnaire
October	24	Hold prospectus exam
November	27	Administer questionnaire to School A teachers
December	2	Meet with School A Advisory Period teachers
December	2-5	School A Advisory Period teachers collect consent forms
December	5	School A Advisory Period teachers administer questionnaire to students
December	9	Send questionnaire to School A parents
December	9	Meet with School B Advisory Period teachers
December	9-12	School B Advisory Period teachers collect consent forms

December	12	School B Advisory Period teachers administer questionnaire to students
December	31	Submit Chapter II
January	31	Submit Chapter IV outline
February	14	Submit Chapter IV rough draft
February	21	Submit Chapter V outline
February	28	Submit Chapter V rough draft
March	14	Submit Chapter IV final copy
March	21	Submit Chapters I through V final copy
March	28	Schedule Dissertation Exam
April	4	Submit final copy to committee
April	18	Hold Dissertation exam
April	25	Distribute to graduate school
May	9	Graduation

VITA

Charles L. Spivey was born in Norfolk, Virginia, on January 11, 1956. In 1978, he graduated from Old Dominion University with a bachelors degree in secondary education. The George Washington University granted him a masters degree in 1989. On May 9, 1996, the Certificate of Advanced Graduate Study was awarded to Charles Spivey by the Virginia Polytechnic Institute and State University.

Mr. Spivey began his professional career as a middle school social studies teacher in Amelia County, Virginia. For the past twelve years, he has been employed by the Virginia Beach City Public Schools as a junior high school teacher and a secondary schools administrator. Mr. Spivey currently serves as assistant principal at Plaza Middle School.

Charles Spivey holds memberships in several professional associations, including the National Association of Secondary School Principals (NASSP) and its affiliates. Mr. Spivey promotes youth activities outside of school with memberships in the Central Optimist Club and Saint Aidan's Episcopal Church.

Charles L. Spivey