

A Dissertation

entitled

Eyewitness Testimony, False Confession, and Human Performance Technology:

An Examination of Wrongful Convictions

by

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Submitted to the Graduate Faculty as partial fulfillment of the requirements for
the Doctor of Philosophy Degree in Curriculum and Instruction: Educational Media

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Wrongful criminal convictions have come to the attention of the public and the criminal justice community in recent decades as a result of DNA evidence that has proven innocence after conviction. Research has suggested that as many as 3% to 5% of people currently imprisoned did not, in fact, commit the crimes for which they were convicted. A review of the scholarly literature indicates that two primary causes of errors lead to wrongful convictions: (a) faulty eyewitness identification and (b) false confessions that occur during the criminal investigative phase.

There are three purposes of this study. The first purpose of the study was to qualitatively analyze the current Ohio Peace Officer Training Commission (OPOTC) curriculum to determine whether the content being taught in Ohio police academies is in alignment with empirical research on the subjects of wrongful convictions, faulty identification, and false confessions. The second purpose of the study was to quantitatively investigate the perceptions that experienced investigators have regarding what they were taught in the police academy compared with what they now understand

from experience pertaining to eyewitness and confession evidence. The third purpose of the study was to suggest human performance technology (HTP) interventions as a means to improve performance of police investigators and reduce the rates of wrongful convictions in the state of Ohio.

Results indicated that the OPOTC curriculum does not coincide with empirical research pertaining to wrongful convictions, specifically with regard to eyewitness identification and false confessions. Results further indicated that perceptions among investigators pertaining to eyewitness and confession evidence have changed as investigators gained experience in the field.

I would like to dedicate this study to my Lord and Savior, Jesus Christ. Without Him, neither this project nor anything else would be possible. He has blessed me beyond words.

I would also like to dedicate this study to my wife, Terri. Without her commitment to higher education, encouragement, patience, and sacrifice, the completion of this study would not have occurred. As my encourager, sounding board, and confidant, she helped me to persevere and overcome obstacles that invariably happen during projects such as this. It is with heartfelt thanks that I acknowledge that this study would not have been possible without her support. Many moments of personal time together were forfeited in order to complete this project. My love and thanks go out to her.

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Chapter One

Introduction

The study of wrongful conviction has been a leading social concern since the first exoneration of a prisoner based on DNA evidence took place in 1989 and the subsequent exonerations of more than 280 other wrongfully convicted prisoners (Collins et al., 2009; Roach, 2010). Ramsey (2003) surveyed Ohio criminal justice professionals, including sheriffs, chiefs of police, prosecutors, defense attorneys, and judges. Responses from these surveys indicated that those professionals believed that between 1% and 3% of all felony convictions are in error. If Ramsey's results are accurate and representative of the false conviction rates in other states, as many as 20,000 to 60,000 innocent people could be falsely incarcerated for felony convictions in the United States. Other studies have suggested that the number of people who have been wrongfully convicted could be much higher (Huff & Rattner, 1988; Petro, 2010). Ramsey suggested that the criminal justice system should work to reduce the rate of wrongful convictions from the current estimated rate of 1% to 3% to a much lower rate—one similar to the error rate within the airline industry. Ramsey has suggested that every proven case of wrongful conviction should be studied at the same level of intensity with which airline crashes are studied. Ramsey's research has suggested that various criminal justice participants (e.g., police officers, prosecutors, defense attorneys, and judges) all play a significant role in wrongful convictions.

In recent years, other studies of wrongful criminal convictions have substantiated Ramsey's 2003 study. Most criminal exonerations have resulted from post-conviction DNA analysis, a process that has been improved in recent years and confirms the

innocence of many people previously convicted (Collins & Jarvis, 2009; Martire & Kemp, 2009; Petro & Petro, 2010; Roach, 2010). When a crime yields no DNA evidence, people wrongly convicted have little chance of exoneration.

Although a 1% to 3% error rate may not seem to indicate a serious problem, when that percentage is converted to numbers of people, actual living human beings, the numbers take on a new meaning. According to Petro and Petro (2010), as of 2008, the United States had an adult incarcerated population of 2,319,258. Rounding conservatively based on estimates of 2,000,000 people who were then incarcerated, that 1% to 3% suggests that as many as 60,000 people in the United States were in prison for crimes they did not commit. Some researchers have suggested that the number of wrongful criminal convictions is currently even much higher than that (Huff & Rattner, 1988; Kahn, 2010; Petro & Petro, 2010). When innocent people are placed in prison, life as they had known it ceases. Some innocent individuals are placed on death row. Families of the wrongly convicted are devastated, financial hardships are not uncommon, and reputations are ruined. Freedom that most U.S. citizens take for granted becomes a memory for those wrongfully convicted. Based on the current prison population in the United States, even if the criminal justice system were 99.9% accurate, more than 2,300 innocent people would be incarcerated (Petro & Petro, 2010).

Americans have taken an “out of sight, out of mind” attitude regarding prisoners. Since the American “get tough on crime” mentality was adopted in the 1990s due to increasing crime rates, efforts have increased to identify, apprehend, and prosecute criminals. This social philosophy has resulted in lower crime rates in America, but once a guilty verdict has been reached, further consideration provided to defendants has been

minimal. It appears that this population is thought little of, and few interventions have been implemented to reduce the rates of wrongful conviction. Unfortunately, the justice system's emphasis on efficient apprehension and conviction may have yielded the unintended consequence of increasing the rates of wrongful conviction. According to Huff et al. (1986), crime-control objectives may not result only in reducing crime rates, but these objectives may also indirectly contribute to wrongful convictions. Most criminal justice professionals consider themselves experts at their professions and remain convinced that they have diligently and correctly executed their responsibilities. However, according to Sheck et al. (2000), when confronted with the possibility that a wrongful conviction has taken place, many people involved in processing these questionable cases (e.g., police, prosecutors, defense attorneys, judges, jurors, eyewitnesses, etc.) have tended to deny that they have participated in any way in convicting an innocent person.

Background of the Problem

Some of the causes that have contributed to wrongful convictions include inaccurate eyewitness testimony, poor science, faulty expert testimony, police and prosecutorial error or misconduct, inadequate defense representation, false confessions, and community pressure (Cicchini & Eastton, 2010; Gould & Leo, 2010; Leo & Drizin, 2010; Martire & Kemp, 2009; Petro & Petro, 2010; Ramsey, 2003). Unfortunately, defenders of the American justice system have found themselves caught up in the criminal justice machinery that operates through established protocol and rituals. For example, in some criminal proceedings, more emphasis often has been placed on preserving bureaucratic interests than on finding the truth (Leo & Davis, 2010; Leo &

Drizin, 2010). Without DNA evidence that can be used to prove innocence, once a person is convicted, reversing the processes that the criminal justice system has put in motion becomes difficult. Even with conclusive evidence of innocence, persuading a court to reexamine a case after a conviction is often difficult and time consuming. American courts have taken the long-standing position that once a verdict has been reached, unless specific guidelines are met, conducting new trials is rare (Petro & Petro, 2010). In light of these judicial conventions, it seems reasonable that research should focus on prevention, with emphasis placed on safeguards that are directed at reducing the probability of wrongful conviction.

Jim Petro, former Attorney General of Ohio and co-author of *False Justice*, has indicated that the two major issues that contribute most to wrongful convictions are inaccurate eyewitness testimony and false confessions (personal communication, November 4, 2011). Petro stated that in 75% of wrongful conviction exonerations in which DNA conclusively determined the suspect was innocent, eyewitness testimony comprised the primary prosecutorial evidence in each of these cases. Currently, only the State of New Jersey and the United States Department of Justice provide training designed to inform criminal justice professionals in their jurisdictions about the errors connected with eyewitness testimony. According to Petro and Petro (2010), errors based on faulty eyewitness testimony are the number-one reason people are convicted of crimes they did not commit. Petro also has suggested that a second priority in researching wrongful convictions should focus on tactics utilized by police interrogators in obtaining confessions.

Many tactics commonly utilized by police can lead suspects to confess to crimes they did not commit. In fact, Petro and Petro (2010) have stated that 25% of wrongful convictions identified since the late 1980s have involved false confessions. Often, interrogation techniques that are, surprisingly, sanctioned by courts have resulted in suspects confessing to crimes that they did not commit. Petro and Petro (2010) have indicated that many professionals working in the field of criminal justice lack knowledge concerning the inaccuracy of eyewitness testimony and also are under the misconception that innocent people do not confess to crimes. Additionally, errors that lead to wrongful conviction typically begin with the police officers with whom a suspect first comes into contact. For this reason, a comprehensive study was needed with the purpose of improving the performance of police officers involved in the criminal case process as it pertains to eyewitness testimony and confession evidence. Further, research was also needed to explore and identify the extent to which criminal justice deficiencies have occurred, the impact of those deficiencies, and steps that can be taken to improve those deficiencies. Performance improvement interventions to help correct the problem of wrongful conviction are essential for positive change to take place.

Human performance technology (HPT) approaches directed at reducing wrongful conviction rates should be studied with the intention of improving performance of individuals who work within the criminal justice community. "Human performance technology is the study and ethical practice of improving productivity in organizations by designing and developing effective interventions that are results-oriented, comprehensive, and systemic" (Pershing, 2006, p. 6). To that end, specific human performance improvement interventions should be designed and implemented into the criminal justice

system with emphasis on reducing wrongful conviction rates precipitated by erroneous eyewitness testimony and false confessions.

Purpose of the Study

Research has suggested that because of scientific advancement in DNA technology during the past two decades, awareness of the rates of wrongful conviction has increased, suggesting that these rates are much more prevalent than once thought (Collins & Jarvis, 2009; Kahn, 2010; Roach, 2010). Studies have shown that the two leading causes of wrongful conviction are faulty eyewitness identifications and false confessions (Collins & Jarvis, 2009; Petro & Petro, 2010). Since suspects' initial contact with the criminal justice system usually begins with the police, errors leading to wrongful convictions normally originate during the investigative phase. The purpose of this study was to utilize human performance technology to identify the factors associated with law enforcement in Ohio that lead to faulty eyewitness identification and false confessions, then propose performance interventions directed at reducing the current wrongful conviction rate.

Definition of Terms

Although terms used in this study may be defined differently in other contexts or studies, the terms listed below are defined as follows for the purposes of this particular study:

Criminal justice professionals. Those individuals who work in the criminal justice system. These individuals can include but are not limited to police, investigators, criminal forensic scientists, prosecutors, defense lawyers, judges, correctional officers, probation officers, and parole officers.

Criminal justice system. The environment established by federal, state, and local governments designed to provide justice to all citizens and pursue the truth as it relates to law and order in the United States. The criminal justice system is designed to allow citizens to live peacefully within the confines of established law. It is comprised of three distinct components: law enforcement, courts, and corrections. The system provides the legal framework for the investigation of crimes, the development of suspects, the prosecution and defense of defendants, and the punishment of those found to be guilty.

DNA technology. The science of identifying genetic properties as used in criminal justice procedures to identify perpetrators of crime and to exonerate innocent people.

Educational technology. A social science discipline that integrates technology into educational psychology theories to provide instruction based on desired objectives.

Eyewitness identification. The visual identification of a perpetrator of a criminal act by a victim of or a witness to a crime.

Exoneration. The reversal of a guilty verdict. Exoneration occurs when evidence is offered that conclusively proves a person convicted of a crime was factually innocent. The court acknowledges error, declares the individual innocent, and releases the wrongfully convicted individual from further imprisonment.

Factual innocence. A state in which the person convicted of a crime is innocent—i.e., someone else committed the crime.

False confession. The action of a suspect, during a police interrogation, when he or she confesses to a criminal act he or she did not commit.

Field identification (or “show-up”). A police procedure in which a witness is utilized to identify a criminal suspect shortly after a crime has been committed and within

a close proximity to the crime scene. During a field investigation, the witness is brought to the location where a police officer has detained a suspect and is asked to make an identification.

Human performance technology (HPT). A technology that utilizes a structured and results-based process to identify and remove performance barriers in organizational systems. Using a systemic and systematic approach, human performance technology identifies deficiencies and suggests interventions to improve performance in organizations.

Human performance technologist. A consultant or other individual charged with the responsibility of assessing the degree to which organizational performance meets current goals compared with the preferred level of organizational performance. It is the responsibility of the human performance technologist to identify reasons for performance discrepancies and recommend interventions intended to assist in closing performance gaps.

Innocence project. A network of federal and state organizations that work to prove the innocence of people they believe have been wrongfully convicted of crimes.

Interrogation. The custodial questioning of a criminal suspect with the intent to elicit incriminating statements.

Legal innocence. A state in which a person convicted of a crime may or may not have committed the crime. This can result in the reversal of a guilty verdict and be the result of a due-process error (or errors) that violated a defendant's rights during the trial or investigative procedures.

Line-up. A police procedure whereby a series of individuals, including a suspect, are presented to a witness in a group for identification purposes.

Performance gap. The difference between an organization's current level of performance and the level of performance desired.

Photo array. A police procedure that utilizes a series of photographs, including a photo of the suspect, which is presented to a witness for identification purposes.

Ohio Peace Officer Training Commission (OPOTC). A state-regulated curriculum of training designed to instruct Ohio's potential peace (police) officers in tactics and procedures necessary to perform the duties required of them in the field.

Wrongful conviction. A criminal proceeding in which the defendant is found to be guilty of a crime he or she actually did not commit. This definition does not include those individuals whose convictions were overturned due to technical due-process errors (see "Legal innocence"). For the purposes of this study, those wrongfully convicted are considered factually innocent.

Delimitations

The delimitations for this study were determined based on a desire to reduce wrongful conviction rates within the State of Ohio. As a result, this research is delimited in several areas. First, the study is delimited to three research questions that focus on the current OPOTC curriculum, perceptions of in-service investigators, and the utilization of HPT as a means of reducing the rates of wrongful convictions. A maximum of three research questions were selected in order to provide a relevant yet manageable scope for this study. Secondly, three urban cities were selected in Ohio. These cities were selected because they represent diverse geographic locations within Ohio and provide a sufficient

sample size to conduct the research. Third, the study was delimited to the state of Ohio because state regulations, policies, and procedures in each state apply only to that state. Fourth, the study was delimited to the two most frequent causes of wrongful conviction because these two causes of wrongful conviction result in the majority of errors that lead to this injustice.

Significance of the Study

Understanding the role police play in wrongful conviction and incorporating human performance interventions designed to reduce the rates of wrongful conviction are essential for several reasons. First, convicting an innocent person of a crime is reprehensible from the perspective of the innocent individual who suffers perhaps years in prison, endures financial hardship, loses his or her reputation, and forfeits lifelong relationships. Secondly, the real perpetrator of the crime goes unpunished. Third, wrongful convictions shatter the reputation of the criminal justice system, causing society to lose confidence in the U.S. system of justice. Fourth, although research has indicated that faulty eyewitness identification and false confessions are leading causes of wrongful conviction, little has been accomplished in improving the performance of police officers in these areas, nor has any attempt been made to improve the ability of police officers to accomplish their duties and reduce the rates of wrongful conviction. The results of this study (a) benefit law enforcement in the performance of their duties by increasing their efficiency and (b) benefit citizens of Ohio by reducing wrongful conviction rates. The results of this study also provide the basis for further research and benefits outside the state of Ohio.

Research Questions

Based on the far-reaching problems associated with the elevated number of wrongful convictions in the United States, this study poses the following research questions:

1. Do differences exist between the current Ohio Peace Officer's Training Commission academy curriculum and the recommendations found in the scholarly research regarding eyewitness identification and false confessions as they relate to wrongful conviction?
2. What perceptions do Ohio police officers have regarding obtaining eyewitness identification and confession evidence?
3. What human performance technology intervention(s) could be implemented for Ohio law enforcement regarding eyewitness identification and interrogation methods to reduce wrongful conviction rates?

Chapter 2

Review of the Literature

This literature review contains four sections. The first section includes a review of literature regarding wrongful criminal convictions. According to Kahn (2010),

There is no longer a question of whether our justice system produces convictions of innocent persons. Over the past thirty years, DNA evidence has revealed a much deeper problem than had ever been thought to exist, uncovering hundreds of cases in which individuals have spent years in prison, and in some instances were executed, for crimes they did not commit. (p. 123)

This section explores the background and causes of wrongful convictions.

The second section provides a review of the literature concerning faulty eyewitness testimony as the leading cause of wrongful criminal convictions. “In analysis of cases in which inmates were later exonerated, erroneous eyewitness identification has been cited as the primary reason for the wrongful convictions (e.g., Borchard, 1933; Connors, Lundregan, Miller, & McEwen, 1996; Gross et al., 2005)” (as cited in Flowe et al., 2011, p. 140). This section provides background information and reasons why faulty eyewitness identification has been a plague to the criminal justice system.

The third section of this literature review examines false confessions as the second most frequent cause of wrongful conviction (Collins et al., 2009; Petro & Petro, 2010). Collins et al. (2009) have suggested that the causes of wrongful conviction have been the result of probable systemic failures. After analyzing 283 criminal exonerations, these researchers estimated that 153 were the result of eyewitness misidentifications, 43 were the result of false confessions, 32 were the result of forensic science malpractice, 27

were the result of government misconduct, 25 were the result of informant snitches, and 3 were the result of bad lawyering. The review of the literature in this section (a) identifies factors that contribute to scenarios in which suspects confess during police interrogation to crimes they did not commit and (b) identifies how false confessions become difficult to reverse during the trial process.

In the fourth section, the review of literature focuses on human performance technology (HPT) as a means of reducing the rate of wrongful conviction and reviews the human performance issues that contribute to the problem. “An HPT approach that is systemic and holistic and that pursues root causes of the problems to be resolved continues to be effective” (Pershing et al., 2008, p. 14). This section examines how HPT can help individuals and organizations conduct their work more efficiently; describes how HPT has been used in the field of criminal justice; and presents information regarding eyewitness testimony, false confessions, and the contribution that these two errors have made in increasing the number of wrongful convictions.

Wrongful Criminal Convictions

The Severity and Frequency of the Problem

According to Colvin (2009), “A wrongful conviction is defined as a conviction of a person who was factually innocent” (p. 174). Based on Colvin’s definition, researchers have distinguished between legal innocence—i.e., procedural error—and factual innocence. Factual innocence, as the term implies, suggests that someone other than the suspect has committed a crime of which the suspect has been accused. Legal innocence refers to a situation in which the State violated a defendant’s rights and a conviction was overturned (Gould et al., 2010). A person who is convicted because of a procedural error

may or may not have committed the crime. In other words, a legal defect in the criminal justice led to his or her conviction (Holmes, 2001). Wrongful conviction then means that errors by police and/or prosecution have taken place during criminal investigative and or judicial phases that have resulted in a suspect becoming a defendant in a criminal trial, being accused of a crime that he or she did not commit, and then being wrongly convicted of that offense. According to Gross et al. (2008), this conversion from suspect to defendant is often unintentional: “False convictions are accidents: a system we rely on daily goes wrong, with tragic results. Like other accidents, most false convictions are probably unintended, although they may be preventable” (p. 929). These “accidental” errors can turn into wrongful convictions easily when the court system fails to uncover systemic defects in the criminal justice process. As Colvin (2009) has pointed out, when courts fail to correct prior errors in an investigation and make wrong decisions about whether a defendant committed the offense charged against him or her, a wrongful conviction may likely occur.

Wrongful convictions occur more often than many realize. “Virtually no one denies the existence of wrongful convictions, while the several studies on this question cap estimates at around 3% to 5% of convictions” (Gould et al., 2010, p. 832). To better illustrate the consequences of these percentages, Schehr et al. (2005) have made the following observation:

The American system of criminal justice is so large and has so many arrests each year that even if the system was 99.5% accurate, it would still generate more than 10,000 wrongful convictions each year for the eight serious index crimes alone (Huff et al., 1996: 22). It is likely that the error rate is even higher for less serious

crimes, making it highly probable that wrongful convictions affect many Americans each year even though the overall error rate may be relatively small. (p. 183)

Some professionals have indicated that the current statistics about wrongful convictions are representative of a criminal justice system that is functioning well. However, this faulty logic, according to Kennedy (2004), impedes recognition, exposure, and correction of wrongful convictions. For example, Ramsey (2003) pointed out in his research that even if only 1% of defendants in America are wrongfully convicted (based on an incarcerated population of 2,000,000), 20,000 people would still be incarcerated for crimes they did not commit. “There is every reason to presume that the documented wrongful convictions are but a fraction of the true number of cases in which an innocent person was sent to prison for a crime he did not commit” (Bowman, 2008, p. 1502). According to Gross et al. (2008), improvements in our understanding of wrongful convictions have come by studying exonerations, and based on this research, it has been shown that exonerations are unrepresentative of wrongful convictions overall.

One factor that has played an increasingly important role in illuminating the severity and frequency of the problem has been medical and scientific advancements in DNA evidence. According to Kahn (2010), increased awareness of wrongful convictions can be traced to the advancement of DNA testing and technology. Wrongful convictions, which once were considered isolated incidents or situations that seldom ever occurred, currently have been recognized as being much more prevalent than earlier believed. Roach (2010) has indicated that between 1989, when the first DNA exoneration occurred, and 2003, a total of 245 exonerations based on DNA have taken place. The problem that

the criminal justice system has faced is that the only wrongful convictions that can be positively verified are the ones in which the convicted person has been exonerated. Kahn (2010) noted that

while DNA exonerations have demonstrated the ability of our government to correct its mistakes, they have also served as a ‘miner’s canary’ by shining a spotlight on the most serious and troubling flaw in the justice system—the unknown number of innocent individuals who remain imprisoned for crimes they did not commit. (p. 127).

Garrett (2008) has indicated that exonerations have altered the way people perceive the accuracy of the criminal justice system.

The Social Costs of the Problem

Smith et al. (2011) have indicated that of the 250 exonerations they examined, these wrongly convicted individuals served an average of 13 years in prison. The Innocence Project has estimated that wrongfully convicted individuals have served nearly 3,000 collective years in prison and that 17 individuals of those 250 served time on death row. Smith et al. (2010) also reported that “as a community the wrongful conviction of just these 250 individuals amounts to 7 million hours of lost work, \$42 million dollars in lost wages, and the \$87 million dollars used to incarcerate these individuals who were factually innocent” (p. 83).

Tremendous costs also have been associated with wrongfully convicting an innocent person, and these costs illuminate with great clarity the flaws of the criminal justice system. Bowman (2008) has pointed out a few of these costs:

The costs are enormous and impossible to quantify. Immeasurable suffering is caused to the wrongfully convicted as a result of shattered personal and community ties, the loss of freedom (sometimes for decades), harsh conditions of imprisonment, and ruined psyches. There is also a broader effect, as confidence in the criminal justice system is shaken. Police-community relations may be further undermined in communities where such relationships have historically been strained. In extreme cases, the legitimacy of the entire criminal justice process may be called into question. (p. 1503)

Kahn (2010) has pointed to yet another tragedy connected with wrongful convictions. In addition to the financial, psychological, and physical consequences connected with wrongful conviction, the social stigma of being imprisoned—even wrongfully—makes it difficult for wrongfully convicted individuals to regain their reputations. Risner (2007) has noted that when wrongful convictions are the outcome of a court process, even in a petty criminal or quasi-criminal context, it not only inflicts pain on the moral conscience of citizens, but it also corrodes the respect for the law held by the wronged individuals as well as others who believe the convicted individuals were, in fact, innocent all along. Compounding the social cost of wrongful conviction is the fact that when an innocent person is convicted of a crime, the individual guilty of committing the crime escapes justice and may continue committing other crimes. In actuality, the initial criminal behavior is positively reinforced if punishment or negative consequences are not applied. Gross et al. (2008) have made the following observation:

We do sometimes find new convincing evidence that convicted defendants are innocent, but those who are cleared have usually spent years in prison, and their

ultimate release seems to depend heavily on luck. A false conviction is a tragedy for the innocent defendant and his family, whose lives may be destroyed. It also undermines every purpose that criminal punishment is designed to serve. Not only is it profoundly unjust, but we cannot deter or incapacitate the real criminal—not to mention any attempt to rehabilitate him—if he is free while someone else is locked up for his crimes. (p. 928)

The Death Penalty and the Wrongfully Convicted

The issue of wrongfully convicting an innocent person is even more tragic when the death penalty is applied. According to Holmes (2001), “The wrongful conviction issue lies at the core of the current debate over the death penalty” (p. 99). Once a person has been executed, it obviously and tragically becomes too late to correct the mistake of his or her wrongful conviction. Holmes (2001) has pointed out that “no judicial remedy is available to someone who has been wrongly executed; there is no way to undo the mistake” (p. 99). Gross et al. (2008) have determined that wrongful conviction rates involving capital cases are higher than in other criminal categories, and these authors have made the following observation:

...approximately 2.3 percent of death-sentenced defendants in the United States are exonerated. The rate of wrongful convictions among death sentences is almost certainly greater than 2.3 percent, but that figure is already far higher than the rate of exoneration for any other category of criminal conviction. If defendants who were sentenced to prison had been exonerated at the same rate as those who were sentenced to death, there would have been nearly 87,000 non-death-row

exonerations in the United States from 1989 through 2003, rather than the 266 that were actually reported. (p. 958)

It seems clear that as high as wrongful convictions rates appear to be for those convicted of crimes across all levels of severity, this rate may be even higher for those convicted of capital crimes. Holmes (2001) has pointed out that a comparatively high percentage of individuals have been wrongfully convicted and sentenced to the death penalty:

“Approximately 8% of the total number of individuals sentenced to death are subsequently found legally innocent on review. This could be as many as 500 of the more than 6,200 prisoners currently awaiting execution” (p. 110). The research literature has clearly indicated that as frequent as wrongful convictions are overall, they are even higher in capital cases—cases in which the defendant is at risk of an even more perilous outcome than incarceration. Holmes (2001) has suggested that innocent people have been executed in the past and will be in the future unless positive change occurs:

It is clear that a significant percentage of prisoners sentenced to death are found to be legally innocent—wrongly convicted. Miscarriages of justice, then, are not rare but occur with relative frequency. There is no reason to believe that courts are any better at correcting their mistakes than they are at preventing them to begin with; therefore, it is quite possible that innocent people have been executed in the past and will be in the future if no significant reform is forthcoming. (p. 111)

Because so much is at stake for people accused of a capital crime, much of the literature has pointed to the obvious conclusion that wrongful convictions are grossly unjust and should be examined so that remedies and prevention can take place. “Given the finality of execution, not to mention the violation of human rights if the executed individual is

innocent, it is important to learn who the wrongly convicted individuals released from state death rows are, as well as examine the process that put them on death row to begin with” (Holmes, 2001, p. 99).

Causes of Wrongful Conviction

Research has indicated reasons why mistakes in the criminal justice system have led to wrongful convictions. Garrett (2008) has identified some of these issues and provided reasons why exonerees have experienced problems proving their innocence: “Exonerees could not effectively litigate their factual innocence, likely due to a combination of unfavorable legal standards, unreceptive courts, faulty criminal investigations by law enforcement, inadequate representation at trial or afterwards, and a lack of resources for factual investigation that might have uncovered miscarriages” (p. 131).

In general, the public believes that the criminal justice system works reasonably well in keeping them safe and applying justice to individuals who commit crimes. This trust lends itself to a naive attitude leading to the conclusion that when an arrest is made, the perpetrator of a crime has been caught. Kennedy (2004) has emphasized this point and has identified specific reasons why innocent people have been convicted:

A number of factors have contributed to wrongful convictions, including the fact that the presumption of innocence has become the presumption of guilt. This attitude is based on societal beliefs that if the police have charged someone, then that person must be guilty. Other factors that have contributed to wrongful convictions include perjured testimony, eyewitness misidentification, faulty forensic evidence, prosecutorial misconduct, ineffective counsel, use of jailhouse

informants, and police misconduct (e.g., overzealous and shoddy investigative practices). (p. 199)

Researchers have concluded somewhat unanimously that if wrongful convictions are to be reduced, reforms in the criminal justice system will have to be made. Bowman (2008) has listed nine strategies that he believes would assist in reducing the possibility of convicting the wrong person:

Suggested reforms for reducing the incidence of wrongful convictions include the following: 1. Increasing the accuracy of eyewitness identifications by using multiple-person line-ups or photo arrays as opposed to single-suspect identification procedures. 2. Sequential, instead of simultaneous presentation of line-up participants to the witness. 3. Electronic recording of all eyewitness procedures. 4. Videotape custodial interrogations from inception to conclusion and a requirement that police receive training to recognize mental illness and mental retardation in their suspects. 5. Clear judicial procedures for convicted persons to present claims of innocence based on new evidence, without a time limit. 6. Allow appropriate compensation for appointed indigent defense counsel. 7. Judicial acceptance of advances in forensic science, but subject to rigorous examination. 8. Open file discovery to the defense of all non-privileged material relating to the investigation in the possession of the police and prosecutors. 9. Training police in methods to avoid “tunnel vision”—unwarranted focus on a single suspect early in the investigation. (p. 150)

Reform Possibilities

Certainly, as long as human beings are involved in any process, mistakes are likely to follow. In wrongful conviction cases, research has shown that it is important to study the errors that caused an innocent person to be convicted and work toward the reduction or elimination of those errors. Schehr et al. (2005) have stated that “wrongful convictions can never be eliminated in a system involving human judgment, but they can be substantially reduced through persistent and lucid comprehension of preventable errors” (p. 206). In certain areas of public safety, especially in transportation, investigative boards have been established to thoroughly investigate mishaps for the purpose of learning from past mistakes and reducing the possibility of similar incidents occurring in the future. Schehr et al. (2005) have pointed out the need for an innocence commission to review cases of wrongful conviction in a manner similar to that of the National Transportation and Safety Board (NTSB):

In the United States, when a plane crashes or a train derails there is an immediate and thorough investigation by the National Transportation Safety Board (NTSB). This is an “agency with subpoena power, great expertise, and real independence to answer the important and obvious questions: What went wrong? Was it a system error or an individual’s mistake? Was there any official misconduct? And, most important of all, what can be done to correct the problem and prevent it from happening again” (Scheck and Neufeld 202:98). Currently the American criminal justice system has no institutional mechanism to evaluate the conviction of an innocent person. An innocence commission would fill this gap. The commission would automatically review any acknowledged case of wrongful conviction,

whether the conviction was reversed on post-conviction DNA tests, or through development of new evidence of innocence. Upon review of these cases, the commission would recommend remedies to prevent such miscarriages of justice from happening again. Innocence commissions now exist in Great Britain and Canada. (p. 194)

Convicting an innocent person is symptomatic of injustice within the due process of law that Americans expect to be just. Not only have commissions been put in place to safeguard the transportation industry in the United States, but other entities also have recognized the need to implement new strategies to keep their own systems safe and reliable as well. Scheck (2010) has suggested that the criminal justice system should follow the example of other professional communities:

The medical industry and business community have already recognized that the best way to ensure “quality” in any process is to build systemic safeguards. The legal system simply needs to play catch-up by adopting many of the same practical remedies and organizing principles. In the same way that the medical profession is learning to develop a culture of safety through implementing a formal system for tracking errors, proposing error-reducing systemic solutions, and implementing structural reforms, prosecutorial offices can foster a culture of integrity. (p. 2256)

The idea of a means within the criminal justice profession to investigate and then report errors appears to be a viable plan that has been suggested by other researchers as well:

The criminal justice system needs a workable facility to collect and disseminate detailed, reliable, factual accounts of helpful errors. Aviation has found regular

vehicles for communicating the facts of its disasters and near-misses through NTSB investigations, the Internet, and *Flying* magazine. Medicine has done the same through journals such as *Lancet* and *Annals of Internal Medicine*. (Doyle, 2010, p. 130)

According to researchers, the best way to understand and correct errors in the practice of criminal justice is to investigate and report causes that have been identified in every wrongful conviction exoneration. “A national commitment to fostering the local practice of routinely developing NTSB-style factual reports on criminal justice organizational accidents will provide a more accurate and more useful understanding of the causes and cures of recurrent disasters” (Doyle, 2010, p. 145). The idea of initiating intense investigations conducted by a separate review board for the purpose of evaluating and ensuring quality control within the criminal justice system is not a new concept. Doyle (2010) has noted that “Peter Neufeld and Barry Scheck, the co-founders of the Innocence Project, began to argue in the earliest days of the DNA exonerations that a review function modeled on the National Transportation Safety Board was needed” (p. 126).

To be sure, research has supported the conclusion that errors contributing to an environment in which wrongful convictions occur are systemic in nature. No single issue or problem has been identified as the only cause of wrongful convictions. Additionally, researchers have suggested that no one within the criminal justice system intends for these errors to occur.

Despite traditional frictions among police, prosecutors, judges, and defenders, veteran practitioners grow up together, handle the same cases, deal with the same

victims and defendants, and work in the same courts. They have more in common with each other than they have in common with anyone else, and, despite their clashing perspectives, they *all* hate criminal justice error. (Doyle, 2010, p. 146)

Researchers and theorists have called for practitioners responsible for criminal justice administration to continue conducting error analysis within the criminal justice system. According to Doyle (2010) and Colvin (2009), identifying and revealing the causes of wrongful conviction will help to create awareness among individuals who practice within the various areas of the criminal justice system. Because wrongful convictions have occurred at a rate much higher than once thought, research has suggested that additional research must be conducted to understand the causes of errors that lead to this social issue and, further, move toward prevention. Colvin (2009) also has reported that for every exoneration, criminal justice practitioners should be asking and answering three questions: (1) What was the error that the prosecution based their case on, and why did that error occur? (2) How was the evidence handled throughout the trial process, and why was the error not corrected? (3) How was the evidence handled in the appeal process, and why was the error not corrected?

According to researchers, the severity, frequency, costs, and causes of wrongful conviction have been established. What is needed now are reform and improved practices. Gould et al. (2010) have made this point clearly:

But unless criminal justice professionals, policymakers, and politicians are truly open to these findings and are willing to adopt new measures in light of the research, the research threatens to become, quite literally, an academic exercise. The first century of research has taken us to a point of revelation and burgeoning

reform. Whether the next stage of investigation will be as illuminating and valuable may depend more on practice than research. (p. 868)

Faulty Eyewitness Testimony

The Leading Cause of Wrongful Convictions

One of the most frequent and important types of evidence that prosecutors and defense attorneys encounter in criminal cases is eyewitness evidence. A 1987 study estimated that in 77,000 criminal trials each year in the United States, the primary or sole evidence against a defendant was eyewitness testimony (Wells, Small, Penrod, Malpass, Fulero, & Brimacombe, 1998). Unfortunately, research also has indicated that eyewitness error is the leading cause of wrongful convictions. For example, according to Wells, Memon, and Penrod (2006), in the first 180 DNA exoneration cases in the United States, eyewitness error occurred in 75% or more of the cases (as cited in Wise et al., 2009).

Cicchini et al. (2010) also have indicated that eyewitness identification evidence is unreliable and is the leading cause of wrongful convictions. These researchers further indicated that although unreliable, eyewitness testimony has been a powerful tool used by prosecutors. Frequently, jurors are never made aware of its dangers. Wise et al. (2009) and Cicchini (2010) also have indicated that erroneous eyewitness identifications have plagued the United States system of criminal justice since its beginning. As has been previously mentioned, most wrongful convictions have been discovered through DNA testing. This leads to a concern for those who have been convicted by evidence consisting primarily of eyewitness testimony and a lack of DNA evidence. Cicchini et al. (2010) have made the following observation:

When false eyewitness identifications and wrongful convictions are discovered, they are usually exposed through post-conviction DNA testing. However, in the vast majority of criminal cases, DNA evidence has either been destroyed, or more commonly, never existed in the first place. This, of course, poses a significant problem for the innocent defendant convicted based primarily on eyewitness evidence. (p. 381)

Doyle (2010) has indicated that eyewitness testimony is our oldest form of evidence and that many innocent people have been convicted by the testimony of sincere eyewitnesses, but faulty eyewitness testimony evidence dominates the list of reasons prisoners have been exonerated. Roach (2010) has pointed out that DNA exonerations have shown that mistaken eyewitness identification is the leading cause of wrongful convictions, even when the eyewitnesses frequently have been the victims of the crime.

Reasons for Faulty Eyewitness Identification

According to Joffe (2010), one of the reasons that eyewitness testimony has been considered faulty and unreliable hinges on the complexity of the psychological processes involved in reconstructing memory:

Contrary to popular belief, the human mind does not operate like a video camera, gathering and recording every detail of an event and accurately retaining it for later playback. Instead, human memories are formed through a highly complex process in which images and details of events are constantly altered through the integration of new experiences and interpretations. (p. 446)

Gould et al. (2010) have also labeled the natural and inherent psychological processes involved in eyewitness misidentification as complex and intricate: “Eyewitness

misidentification is caused by natural psychological errors in human judgement” (p. 841). Flowe et al. (2011) have summarized research by a number of researchers who have provided further insight into the psychological processes that have indicated eyewitness identification should be cautiously regarded:

Meta-analytic reviews of the large body of laboratory research on eyewitness identification indicate that there are several factors that can reduce the accuracy of face recognition, including: relatively shorter durations of exposure to the culprit (Shapiro & Penrod, 1986); weapon exposure (Steblay, 1992); stress (Deffenbacher, Bornstein, Penrod, & McGorty, 2004); if the culprit is of a different race than the eyewitness, a factor which is known as *own race bias or the cross race effect* (Meissner & Brigham, 2001); relatively longer retention intervals between the crime and the identification test (Shapiro & Penrod, 1986); and the type of procedure that is used to test the eyewitness’s memory (Steblay, Dysart, Fulero, & Lindsay). (p. 141)

Gould et al. (2010) have suggested that when victims are confronted with a weapon during a violent crime, their focus may be so aimed at the weapon that later they are unable to provide accurate details describing the perpetrator. These researchers have suggested that the issue of misidentification becomes more pronounced if the victim and perpetrator are of different races. Often, there is little relationship between the eyewitness identification and the reality of the incident.

Joffe (2010) has noted that experts and social scientists have warned of the unreliability of eyewitness testimony; however, the courts and legislators have failed to address the problem and develop ways to guard against it. The consequences of this

failure to act have resulted in hundreds and possibly thousands of innocent people being convicted of crimes they did not commit. In addition to the fact that courts and legislators are often unaware of this problem, Joffe (2010) has suggested that the police may actually perpetuate erroneous eyewitness identification:

...researchers also have found that a large amount of post-event feedback occurs during a witness's initial interactions with police officers following an observed event. Specifically, because eyewitnesses often feel a strong desire to see that "justice" is done, they frequently look to the officers conducting the investigation, who may unconsciously provide clues to support their own investigative theories and evidence interpretation. Such suggestions can occur in a variety of ways. For example, an officer may prepare a live lineup or photo lineup in which the prime suspect stands out from the other individuals or the officer may innocently give subtle suggestions through "innocuous body language" or facial expressions. In some cases, officers may even make more direct suggestions by asking a witness to take another look at a specific suspect's photo or by assuring a witness that he or she has chosen the right person. (p. 447)

Gould et al. (2010) also have suggested that the police can exert subtle influence in the form of suggestiveness during identification procedures. Cicchini et al. (2010) have provided an example of how eyewitness suggestiveness can enter into an investigation early on in the form of "show-ups":

A show-up is an identification procedure in which police present a single suspect to an eyewitness and then ask the eyewitness whether the suspect is the perpetrator. Typically, show-ups are conducted in the area of, and shortly after,

the alleged crime. Often when the eyewitness views the sole suspect, the suspect will be in police custody and may even be hand-cuffed or locked in a police squad car. Show-ups are very convenient for law enforcement as they allow for quick and easy resolution of the investigation, without having to take the time to assemble a lineup or photo array. (p. 388)

This convenience for police comes at a high price due to the risk of misidentification. When an eyewitness is viewing a single suspect in a police show-up, instead of six or eight individuals, as would be present in a lineup or photo array, and this suspect is being presented by a police officer, most people would assume the officer has the right person (Cicchini et al., 2010). Cicchini et al. (2010) further have pointed out that risks associated with show-up identification do not end during the investigative phase or even with the possibility of wrongful conviction. Additional risks continue to exist because the community is still in danger because the real perpetrator remains free.

Another mistake that police officers sometimes make is lapsing into a phenomenon researchers have referred to as “tunnel vision.” In this myopic state, police officers focus so myopically on one suspect that any other suspect possibilities are ignored or discarded from the investigation. Colvin (2009) has suggested that “psychological susceptibility to tunnel vision can depend on the professional culture and training of particular police forces” (p. 185). Colvin (2009) has further suggested that “the resources available for the investigation or alternative scenarios presumably also affect the likelihood that they will be pursued with any vigor. Culture, training and resources are variables” (p. 185).

In addition to the police perpetuating wrongful convictions, some aspects of the criminal justice bureaucracy also have been identified as contributors to wrongful conviction. According to Collins et al. (2009), “When criminal justice is regulated to a mindless routine of shuffling cases from one desk to another, circumstances that might reveal the innocence of a defendant are more likely to be missed” (p. 29). When a suspect becomes a defendant in a criminal trial, Colvin (2008) and Cicchini et al. (2010) have indicated that unreliable identification evidence is often presented to juries without guidance and that eyewitness identification is highly persuasive to jurors. Joffe (2010) has suggested that jurors cannot determine the credibility of eyewitness testimony because they are not aware of its unreliability. Judicial warnings concerning the subject are commonly excluded because of laws prohibiting judicial comment on evidence or because of a culture of non-intervention. “In contrast, in all the English-based jurisdictions, warnings are regularly given about the risks of convicting on identification evidence and the special need for caution before acting on such evidence” (Colvin, 2009, p. 188). Additionally, Colvin (2009) has stated that the English-based courts are particularly skeptical about show-up identifications and specify that it is unsafe to convict a suspect who has been identified when presented alone in a show-up identification procedure.

Prejudice and cross-race effect also are factors that have contributed to suspect misidentification. Smith et al. (2011) have indicated that the vast majority of exonerations involve white female victims who misidentify African American males. Rape of white women by African American men has been a cornerstone of race-relation issues within the U.S. system of justice for many years. Historically, the accusation of rape of a white

woman by an African American man sent vigilante mobs out in search of an African American man to lynch because “...when African American men are identified as rapists, there seems to be little concern about finding the *right* African American man, the goal is to simply find one, arrest him, and send him to prison” (Smith et al., 2011, p. 88). Smith et al. (2011) also have reported that African American men account for 70% of exonerees, a relationship between race and exoneration that is disproportionate.

According to Jackiw et al. (2008), “Another variable that is known to influence the accuracy of eyewitness identifications is the own-race bias or cross-race effect (CRE)” (p. 52). This bias can occur because witnesses are more accurate at identifying members of their own race than they are at identifying members of another, less familiar race. Smith et al. (2004) have noted that when eyewitnesses and suspects are of different races, accuracy rates are lower than they are in same-race identifications. Ferguson et al. (2001) have identified theories suggesting that people who have strong prejudices find it difficult to recognize the faces of members of other races because they focus on racial stereotypes and ignore facial differences. This is likely due to the fact that individuals with strong prejudices have less experience with or exposure to the faces of members of other races.

Suggested Remedies for Faulty Eyewitness Testimony

Ensuring that jurors understand the problems with eyewitness testimony would seem helpful, but research has shown that the process of informing jurors about the limits of eyewitness testimony may be inadequate in preventing wrongful convictions:

Traditionally, judicial instructions and eyewitness cross-examination have been recommended to counter jurors’ apparent inappropriate reliance on eyewitness

evidence (Penrod & Cutler, 1999). However DNA exoneration cases and other evidence implicating eyewitnesses in erroneous convictions suggest that these safeguards are inadequate to protect innocent defendants (Davenport & Cutler, 2004). (as cited in Martire et al., 2009, p. 225)

Because of the apparent inadequacies of traditional jury instructions, Matire et al. (2009) have suggested a change to the established judicial protocol: “Some researchers have argued that expert evidence provided by a psychologist has a more desirable effect on juror decision-making than does an instruction issued by a judge (Cutler & Penrod, 1995; Greene & Loftus, 1984; Leippe, 1995; Pezdek, 2007)” (p. 226). However, Roach (2010) has suggested that judges nevertheless should warn jurors about the frailties of eyewitness identification and allow the accused to provide expert testimony about those frailties or even exclude eyewitness identification evidence from the trial. Often, however, a defendant in a criminal proceeding will not continue all the way to a trial. Flowe et al. (2001) have pointed out that if a defendant pleads guilty, then any trial safeguards designed to protect the defendant from being convicted on faulty eyewitness testimony are useless.

According to Schacter (2001), “Eyewitness errors cannot be eliminated because distortions of perception and memory are products of normal human information processing” (as cited in Magnussen et al., 2008, p. 178). Magnussen et al. (2008) have suggested the following:

In order to reduce the impact of such errors in trials, it is essential that the principal participants in the criminal justice system—jurors, law enforcement officers, attorneys, and judges—are aware of the limitations of eyewitness

testimony and the factors that may distort it. Of all the principal participants in the criminal justice system, judges have the most important role in preventing and mitigating the effects of eyewitness error. (p. 178)

Many professionals working in the criminal justice system have not been made aware of the inadequacies of eyewitness evidence. To better handle problems connected with eyewitness error, Magnussen et al. (2001) have recommended that educational programs be established for judges and other participants within the criminal justice system, including law enforcement officers, lawyers, and jurors. Additionally, attorneys should realize that eyewitness error is not an adversarial issue but rather a question of justice. According to Wise et al. (2009), attorneys should understand and apply scientific research about eyewitness testimony to their cases so they can address problems of eyewitness error.

Doyle (2010) has indicated that memory evidence is easy to contaminate, and once it has been contaminated, it is impossible to determine whether the contaminants have taken effect. Doyle has recommended five changes to procedures used by police involving eyewitness testimony:

(1) choosing line fillers to match the verbal description of the perpetrator, not the suspect; (2) instructing the witnesses that the perpetrator may or may not be present; (3) having the lineup or photo array be conducted by an administrator who does not know which person is the suspect; (4) immediately recording the witness's statement of confidence in any choice that was made; and (5) showing lineup members one at a time, sequentially, rather than using the traditional simultaneous method. (p. 116)

Roach (2010) also has indicated that police should utilize more effective eyewitness identification procedures to minimize erroneous identifications. Roach has advocated the use of sequential photo arrays as well as double-blind procedures in which the police officer conducting the procedure does not know the identity of the suspect and cannot inadvertently indicate the police suspect to the witness.

Unfortunately, reforms to eyewitness identification procedures have progressed slowly. Risner (2007) has suggested that ideas for implementing masking procedures in the administration of line-ups and photo arrays have fallen on deaf ears. The main participants in the criminal justice system have prevented these proposals from being widely implemented. In a personal interview, Jim Petro (personal communication, November 4, 2011), former Ohio Attorney General, stated that currently only the United States Department of Justice and the State of New Jersey have provided comprehensive training for law enforcement officers in order to make them more aware of the problems associated with faulty eyewitness identifications and false confessions that can lead to wrongful convictions. Kahn (2010) has stated that New Jersey was the first state in the U.S. to adopt recommendations issued by the United States Department of Justice—recommendations that incorporate 20 years of scientific research on eyewitness guidance guidelines. The goal of implementing these recommendations was for the State to be able to provide reliable eyewitness evidence.

Research is clear that there still remains a widespread need for reform and training concerning the utilization of eyewitness identification. Doyle (2010) has pointed out that “every wrongful conviction is also a wrongful acquittal because an actual rapist or killer goes free” (p. 128).

False Confessions

The Second Leading Cause of Wrongful Convictions

According to Leo and Drizin (2010), "...it is now widely accepted that wrongful convictions occur with troubling regularity in the U.S. criminal justice system, despite high-minded ideals and the many constitutional rights that are meant to safeguard the innocent" (p. 12). Leo and Drizin also have pointed out that modern studies have established that false confession is one of the leading causes of wrongful conviction. In fact, after faulty eyewitness testimony, the second leading cause of wrongful conviction stems from the suspect confessing to a criminal act he or she did not commit (Collins, et al., 2009; Jim Petro, personal communication, November 4, 2010). According to Gould et al. (2010), the National Innocence Project has estimated that two-thirds of DNA exonerations in homicide cases involve false confessions.

Leo and Davis (2010) determined that confessions are universally viewed as persuasive evidence of guilt and that if a false confession is introduced at trial, it will likely lead to a wrongful conviction. This wrongful conviction is likely to occur even if the false confession was elicited by questionable interrogation methods. "As the case against a false confessor moves from one stage to the next in the criminal justice system, it gathers more force and the error becomes increasingly difficult to reverse" (Leo & Davis, 2010, p. 20). Leo and Davis also have indicated that despite the use of DNA to exonerate prisoners during the last two decades, and many documented cases of proven wrongful convictions, criminal justice professionals still believe in the validity of confession-based convictions. According to Leo and Davis (2010), prosecutors, like the police, rarely consider the possibility that an innocent suspect would falsely confess to

something he or she did not do. Additionally, even defense attorneys presume that if their clients confess, they are guilty, and they tend to treat these clients more harshly. Often, a defense attorney will encourage a confessor to accept a plea agreement to a lesser charge to avoid a harsher sentence if found guilty after a trial.

According to Leo and Davis (2010), “American judges tend to presume that confessors are guilty and treat them more punitively” (p. 24). Leo and Davis (2010) further have suggested that in addition to police and prosecutors, jurors also fail to discount false confessions, even when a defendant’s confession was brought about by coercion or other evidence that tends to support innocence.

Reasons For False Confession

A number of researchers have suggested that “perhaps the defining characteristic of the modern police interrogation is its almost universal endorsement by the policing community as a necessary component of any effective investigation (Baldwin 1993: Inbau and Reid 1967: Salhaney 1991: Hess 1997)” (as cited in Williams, 2000, p. 214). Often, a police interrogation and subsequent confession become the tools utilized to seal the outcome of criminal cases. “It has now become something of a truism to observe that, in most criminal cases, the crucial stage is the interview at the police station, for it is at that stage that a suspect’s fate is as a rule sealed (Baldwin, 1993, p. 326)” (as cited in Williams, 2000, p. 214).

“Police-induced false confessions result from a multistep process and sequence of influence, persuasion, and compliance, and they usually involve psychological coercion (Ofshe & Leo, 1997; Zimbardo, 1971)” (as cited in Leo & Drizin, 2010, p. 12). These

researchers believe that the first mistake leading to wrongful conviction occurs when a police officer erroneously makes the decision to classify an innocent person as guilty.

Without a classification error at this stage, there will be no false confession or wrongful conviction. In other words, if police did not erroneously interrogate innocent people, they would never elicit false confessions. Because misclassifying innocent suspects is a necessary condition for all false confessions and wrongful convictions, it is both the first and the most consequential error police will make.

(Leo & Drizin, 2010, p. 13)

Leo, Drizin, and Davis (2010) have pointed out that the problem of misclassification is compounded by the fact that once an overconfident police officer mistakenly decides that an innocent person is guilty, that officer will be less likely to investigate existing leads, new leads, or evidence that points to other suspects. Relevant evidence may never be investigated, may be lost, or may become contaminated.

Once detectives misclassify an innocent person as a guilty suspect, they will often subject him or her to an accusatorial interrogation. This is because getting a confession becomes particularly important when there is no other evidence against the suspect. Typically, no credible evidence exists against an innocent but misclassified suspect. Thus, detectives typically need a confession to successfully build a case (Leo & Drizin, 2010).

According to Ofshe and Leo (1997), methods that psychologically coerce suspects' "perception of the situation, expectations of the future, and motivation to shift from denial to admission are some of the primary causes of false confession" (as cited in Leo & Drizin, 2010, p. 17). Gould et al. (2010) have stated that police-induced false

confessions are a product of influence, persuasion, and compliance and that these confessions are elicited through psychological coercion. Specifically, psychologically coercive techniques involve promises of leniency, threats of harsher punishment, accusations, repetition, attacks on denials, and false evidence.

American police often confront suspects with fabricated evidence, such as nonexistent eyewitnesses, false fingerprints, make-believe videotapes, fake polygraph results, and so on. The purpose of this technique is to convince the suspect that the State's case against him or her is so compelling and immutable that his or her guilt can be established beyond any possible doubt and that arrest, prosecution, and conviction are therefore inevitable. (Leo & Drizin, 2010, p. 19)

Once a suspect believes that establishing his or her innocence is hopeless and begins to focus on minimizing consequences, the interrogator can more easily convince the suspect to confess (Leo & Davis, 2010).

Interrogation scholars have identified stress-induced confessions as those in which the suspect has become so distressed (tired, fearful, anxious, or distressed by the aversiveness of the interrogation) that he becomes willing to do or say anything—including giving a false confession—to escape the interrogation (Ofshe & Leo, 1997a, 1997b; Davis & O'Donohue, 2004). (as cited in Leo & Davis, 2010, p. 39)

The police practice of using suggestive and leading questions when interrogating a suspect continues to shape law enforcement's understanding of the crime to fit currently known evidence. The confession itself then becomes a significant source of continued

tunnel vision and confirmation bias (Leo & Davis, 2010). Williams (2000) has further expounded upon this concept:

The interview is not designed to elicit the suspect's own account of the incident; rather, the suspect is invited to accede to the officer's view of the case. Where the suspect asserts innocence or introduces evidence which would support a defense, this is generally ignored (McConville and Baldwin, 1982, p. 77) (p. 216).

Williams (2000) has mentioned two ways a police interrogation can negatively impact a criminal case outcome: First, the interrogation can produce a false confession, and secondly, the interrogation can lead to misleading police narratives and foster police "tunnel vision." Leo and Drizin (2010) have stated that

...it is the postadmission narrative that transforms the fledgling admission into a fully formed confession. The postadmission narrative is the story that gets wrapped around the admission and thus makes it appear, at least on its face, to be a compelling account of the suspect's guilt. (p. 20)

According to Gudjonsson (2003) and Leo (2008), the police may also inject details into the interrogation in order to secure an outwardly legitimate confession: "The use of misleading specialized knowledge occurs when police investigators feed the suspect unique, nonpublic crime facts—facts that are not likely guessed by chance—and then insist that these facts originated with the suspect" (as cited in Leo & Drizin, 2010, p. 22). These researchers have indicated that incorporating misleading knowledge into the defendant's confession causes the police and the prosecution to view the defendant's confession as a corroboration of guilt.

According to Leo and Drizin (2010), police officers sometimes attempt to make the confession appear to be voluntarily given, portraying the suspect as the author of his or her own admission, while in reality, he or she is the passive recipient. The result of this interrogation process is the legitimization of the narrative and the police actions that were taken (Williams, 2000). Once a confession has been secured, the accused is in a difficult position to argue that what he or she had previously stated was false (Roach, 2010). The longer a case is investigated with a particular suspect in mind, the more difficult it becomes to refocus on a different suspect. “As the case proceeds, police detectives and prosecutors will have devoted more and more resources to proving the suspect’s guilt, and made more and public statements asserting that guilt and attempting to convince others of it” (Leo & Davis, 2010, p. 36).

Another issue to consider is that police officers have a distorted impression of their ability to assess behavioral signs of the people they interrogate. “The deeply ingrained police belief that interrogators can be trained to be highly accurate human lie detectors is both wrong and dangerous” (Leo & Drizin, 2010, p. 14). Leo and Davis (2010) have discovered that police training has failed to properly teach the effects of interrogation on a suspect. They have suggested that “many American police not only fail to understand the causes and effects of police-induced false confessions, but they also possess incorrect and misleading beliefs based on their training” (p. 43). Williams (2000) has indicated that the success of legal reforms is hampered by failure to take into account the presence and strength of police working rules, which are an important foundation of investigative practice.

Suggested Remedies for False Confessions

Leo and Davis (2010) have pointed out some specific reasons why police and prosecutors sometimes rush to secure a suspect (who subsequently becomes a defendant) in a criminal investigation and proceeding:

The primary goal of investigators and prosecutors should be accuracy—identifying and convicting the guilty while making sure to avoid prosecuting innocents (Thomas, 2008). Unfortunately, competing personal, institutional, and external sources (police supervisors, prosecutors, victims and their families, politicians, media, and the pressures of high caseloads) create pressures to solve crimes quickly and efficiently, especially in serious and high-profile cases (Findley & Scott, 2006). Such pressures in turn may promote a rush to judgment and escalate the risk of misclassifying innocent persons as likely perpetrators. Once a suspect is so classified and subject to interrogation, still in the grip of these pressures, the police interrogator's goals are to induce the suspect to provide incriminating statements (preferably a full confession) that will facilitate a certain and efficient conviction (Leo, 2008). (as cited in Leo & Davis, 2010, p. 34)

Roach (2010) has suggested that remedies for false confessions could include videotaping interrogations, introducing expert evidence about the false-confession phenomenon into a trial, and altogether banning confessions that have not been corroborated by evidence. It should be noted, however, that video recordings are not necessarily representative of the entire context and history of events that have transpired between the police and suspects during interrogation. According to Williams (2000), observers can only speculate about what happened when the recording devices were

turned off. It would seem appropriate that courts should require changes in police and judicial methodology when eliciting and using confessions from suspects. According to Williams (2000),

...legislative and judicial reforms have been enacted in a number of countries in response to the concern that police interrogations are conducted in a manner that systematically neglects the constitutional rights of suspects, and thus, the principles of due process (p. 223).

However, with that stated, Williams (2000) also has pointed out that few qualitative changes in police behavior have been brought about through legislative and judicial mechanisms. Police reform does not end with training and understanding. It is apparent from research that attorneys also are in need of further enlightenment about false confessions:

Even among the evidence available to them, prosecutors are unlikely to focus attention on exculpatory evidence in trial presentations or appellate briefs, while defense attorneys may have failed to receive such evidence, and therefore be unable to present it. Defense attorneys may also be unaware of how to evaluate the potential for false confession or may be focused on avoiding the death penalty rather than on exoneration—and therefore may fail to present full contextual evidence relevant to guilt. (Leo & Davis, 2010, p. 48)

Human Performance Technology

Definition and Purpose

According to Pershing et al. (2008), many people outside the field of human performance technology (HPT) are not aware of the contributions this approach can

provide to organizations. HPT has provided benefits that can be applied to a variety of organizational and social issues, but unfortunately, the benefits of HPT have been poorly communicated and have remained largely unrealized. Its strengths include a strong emphasis on systems thinking and varied approaches to human performance problems. It is a field of study that determines how best to create effective change in people and organizational systems. According to Pershing et al. (2008), HPT has been described as the ethical practice of improving productivity in organizations by developing interventions that are results-oriented. Examining each word of the term “human performance technology” can create a definition of this concept. “Human” refers to the individuals that make up an organization. “Performance” implies that the activities of the employees can be assessed by measurable outcomes. “Technology” implies that a systematic and systemic approach can be developed to resolve problems within an organization. HPT has drawn its disciplinary status from several academic disciplines, including psychology, instructional systems design, organizational development, human resource development, and systems theory (Doucette, 2000; Gould, 2008).

HPT emphasizes various instructional technologies in order to improve the performance of individuals within various organizations. The end result of implementing HPT is that organizational goals can be achieved. These goals can be achieved as HPT practitioners examine and analyze various processes within an organization. Gould (2008) has identified four processes that are critical to performance improvement: (1) The HPT professional must assess and analyze the performance gap. (This requires comparing the current performance of the organization with the desired performance of the organization.) (2) The HPT professional must identify causes of the performance gap. (3)

The HPT professional must facilitate the change process. (4) The HPT professional must evaluate the results to make certain the desired change has occurred. Additionally, Bender (2006) has advocated that the HPT practitioner ask and answer three questions: What is happening? What has happened? What will happen? While investigating answers to these questions, the HPT professional should keep the organization's vision clearly in mind. This formula allows the practitioner to identify performance gaps and also understand their impact on the organization from a micro (individual), macro (organizational), and also a mega (societal) level.

Pullen et al. (2006) have confirmed that HPT is a tested, structured, and results-based process that identifies and removes performance barriers in organizational systems. The approach works by establishing objectives, identifying causes of performance constraints, and proposing interventions designed to remove those constraints. Finally, an evaluation should be conducted to determine whether the intervention has been successful. Gould (2008) has stated, "The human performance technology field aims to ensure that the knowledge, skills, motivation and environmental support necessary for employees to complete their work successfully are available through a systems approach" (p. 1).

Hathaway (2008) and Moseley and Von Drak (2010) have suggested that symptoms that indicate a performance gap rarely identify the actual problem within an organization or system. All too often, organizations move toward one solution: training. Often, however, through the HPT process, practitioners have discovered problems for which training would not be an appropriate intervention. In analyzing performance gaps,

HPT professionals must make decisions based on multiple perspectives and not react without careful consideration. According to Hathaway (2008),

The root causes of any performance issue usually result from some sort of dysfunction either in environmental support (due to a lack of information, resources, or incentives) or a general lack of appropriate behaviors (most likely from inadequate skills, knowledge, motivation, or expectations). (p. 6)

HPT practitioners can then evaluate the desired results and work toward developing the behaviors within and among the organization's human resources to produce the desired results.

HPT is a technology that focuses on individual and organizational performance (Tosti, 2010). The HPT professional works to solve problems within an organization and to evaluate performance (Moseley & Von Drak, 2010). "For the last few decades the field of HPT has provided valuable perspectives on and solutions to a wide range of performance problems in organizations" (Pershing et al., 2008, p. 9). It would seem prudent to utilize its benefits for the purpose of reducing the rates of wrongful convictions.

Human Performance Technology and Criminal Justice

Gerson and Gerson (2008), Doucette (2000), and Crook et al. (2001) all have stressed the importance of effective leadership and effective human capital in creating and maintaining successful organizations. These researchers have mentioned the importance of leaders articulating the mission and vision of any organization. The right people with the right talent need to be in the right places. Competent leaders can and should take their organizations' performance to a higher level, making a positive impact

on society. This can be accomplished partially with organizations attracting and retaining individuals with exceptional talent. Part of the human technologist's work has been to further develop each person's knowledge and competencies, supporting individual abilities as they contribute to organizational objectives. "Maximizing the impact and efficiency of human capital in organizations is one of the cornerstones of industrial and organizational psychology inquiry. It is commonly believed that such maximization benefits individuals as well as the organizations in which they work" (Crook et al., 2011, p. 443). According to Pullen and Gallant (2009), using HPT to focus on police work is one important strategy for improving public safety by eliminating inefficiencies. These researchers have reported that "the idea behind using HPT is to find out and remove what gets in the way of doing good police work" (Pullen et al., 2006, p. 155).

Williams (2000) reported that the public has been concerned about the criminal justice system's ability to prosecute guilty parties while at the same time protect the innocent through due process. Organizational error must be continually in focus to create awareness among practitioners involved throughout the criminal justice system. The criminal justice system is a mix of human beings and technology impacted by human performance. Understanding the ability of HPT to improve human performance in this system can offer new direction to practitioners and policy makers (Doyle, 2010). "In law enforcement systems, HPT brings together the performance of the officers, benefits of technology, and complexities of the legal system to tackle challenging situations and provide outstanding public service" (Hathaway, 2008, p. 1).

Williams (2000) has suggested that in the past, some legislative reforms, representing important steps forward in the protection of individual rights, have in

practice been less than successful. Baldwin (1993) has suggested that judicial ambiguity and inconsistency have been exacerbated by lack of police training in cautioning procedures and their impact on the admissibility of evidence obtained through the investigative process (as cited in Williams, 2000). “The use of HPT represents an innovation in police management and in public management generally” (Pullen et al., 2006, p. 166). Further, according to Pullen et al., effective policing is a citizen expectation. It should be a matter of accountability and professional pride to execute police services in an effective and professional manner. To this end, beginning in 2003, the Royal Canadian Mounted Police (RCMP) began a department-wide initiative to improve its performance in criminal investigation and operational readiness. “The Bridging the Gap (BTG) initiative used Human Performance Technology (HPT) to find, access, and remove performance barriers. This is one of the first large-scale applications of HPT in policing” (Pullen et al., 2006, p. 152). As Pullen and Gallant (2009) have further explained,

A mandate to do police work brings with it a duty to perform policing functions to a high standard. Proficiency in doing police work goes directly to the legitimacy afforded police forces by civil society and their ability to maintain order evenly in a turbulent world. It emphasizes and reinforces long-held expectations that the RCMP, with other police forces in Canada, is held to a high standard of performance. This issue establishes both the basic rationale and the initial corporate decision to use HPT. (p. 8)

Pullen and Gallant (2009) have described HPT as a systematic, systemic, disciplined, and results-based process—a process that is intended to identify and remove barriers that

constrain performance in organizations. Because rates of wrongful convictions are higher than acceptable, it seems clear that the criminal justice system could benefit from the improved performance that HPT can help organizations achieve. According to Hathaway (2008), citizens expect police officers to conduct systematic and comprehensive investigations. They expect nothing less in the way law enforcement officers work to solve problems, train, or plan for strategic performance improvement. Law enforcement agencies should be planning and implementing systemic solutions aimed at reducing error. Hathaway (2008) has suggested that HPT be used in law enforcement agencies to analyze organizational context, determine current performance levels, and ensure that personnel function at their highest level.

Utilizing HPT methodology promises to improve performance; therefore, it is reasonable to conclude that it has the potential to reduce errors that have resulted in wrongful convictions. Since crime suspects typically come to the attention of the police before others within the criminal justice system, it seems prudent to improve police officers' performance as an initial step in addressing issues related to wrongful conviction. Research on the issue of wrongful conviction has clearly indicated that this is the level where mistakes are first created. Unfortunately, the mistakes far too frequently have not been corrected at the judicial level, thus resulting in wrongful convictions. Ackoff et al. (2006) have stated, "In solving problems of virtually any kind, the way to get the best outcome is to imagine what the ideal solution would be and then work backward to where you are today" (as cited in Jang, 2008, p. 27).

Studies have indicated that during the past two decades, much has been discovered pertaining to wrongful criminal convictions. DNA technology has resulted in

increased awareness of the fact that innocent people have been found guilty at rates much higher than previously thought. There is no longer any question that individual perception too often has resulted in flawed eyewitness identification. Research studies have yielded consistent and compelling evidence that faulty eyewitness identification is the most frequent cause of wrongful conviction. Additionally, research studies have demonstrated that innocent people often confess to crimes they did not commit when subjected to certain conditions created by the police. False confessions are the second most frequent cause of wrongful convictions. What is not clear from the literature is the degree to which performance interventions are present and the value of performance interventions designed to reduce the incidence of faulty eyewitness testimony and false confessions.

Further research is needed from an HPT perspective to identify specific police errors that have contributed to faulty eyewitness testimony and false confessions. It is important that criminal justice professionals not only realize the causal factors but that they also understand the specific police training, culture, and procedures that inadvertently lead to wrongful convictions. Specific interventions need to be identified and implemented with the goal of reducing the rates of wrongful convictions in Ohio. HPT has the potential for improving the performance of police officers, which often marks the origin of the processes leading to wrongful convictions.

Chapter 3

Methodology

This study focuses on three aspects associated with wrongful conviction in the state of Ohio. First, this study focuses on the current Ohio peace officer training curriculum—more specifically, the instruction and training that police officers receive regarding eyewitness identification and confession evidence. The intent of this study was to determine whether the current Ohio peace officer training curriculum aligns with existing research in these investigative areas. Secondly, this study examined the perceptions of experienced officers during the investigative process—more specifically, whether what they learned in the police academy aligns with their experience in obtaining eyewitness and confession evidence. Third, this study explored human performance technology as a means of reducing errors that contribute to wrongful convictions. Based on the assessment of the training curriculum and police perceptions, human performance technology recommendations for intervention are provided as a means to improve the performance of law enforcement officers, thus reducing rates of wrongful conviction.

This chapter is divided into two sections. The first section provides an overview of the methodological approach used in this study to investigate the topic of wrongful conviction. This first section also provides a summary of the topic and the proposed purpose and significance of the study. The second section of this chapter describes the research design, the methods that were used in this study, and the theory that guided this inquiry.

Overview

Methodological Approaches

This study investigated two of the major causes of wrongful criminal conviction: (1) inaccurate eyewitness identification and (2) false confessions. This investigation was based upon critical theory in that it examined and evaluated specific aspects of society and culture, drawing on research that has been conducted within the social sciences. Critical theory suggests that social institutions within the United States are not always fair. The educational philosophy in this study reflects a pragmatic approach to social reconstructionism. The primary goal of social reconstructionism is to strive toward solving critical social problems that limit fairness and justice—in this case, wrongful conviction of innocent people. To that end, this study was an ethnographic exploration of police officer culture, values, and beliefs as they pertain to police officers' impressions and interpretations of eyewitness identifications and confessions. The study sought to better understand the beliefs of police officers as they investigate criminal cases in which eyewitnesses have provided suspect identifications. The study also sought to better understand the beliefs of police officers about the process of interrogating suspects and the value of suspects' subsequent confessions.

In addition, this study examined human performance technology (HPT), with an emphasis on implementing interventions directed at improving investigative procedures and reducing wrongful conviction. To this end, this study used HPT systems theory to explore the potential for reducing wrongful convictions. Systems theory advocates the need to explore various components within an entire organization, and investigate how those components relate to each other before implementing change.

Topic and Purpose

Scientific advancements in DNA technology in the past two decades have shown that the rates of wrongful conviction are much more prevalent than once thought (Collins & Jarvis, 2009; Kahn, 2010; Roach, 2010). Studies have shown that two of the leading causes of wrongful conviction are (1) faulty eyewitness identifications and (2) false confessions (Collins & Jarvis, 2009; Petro & Petro, 2010). Since a suspect's initial contact with the criminal justice system usually begins with the police, errors leading to wrongful convictions typically originate during the police investigative phase. Utilizing human performance technology to identify the factors associated with law enforcement in Ohio that lead to faulty eyewitness identification and false confessions, performance interventions directed at reducing the current wrongful conviction rate may offer potential solutions to this problem. By focusing on police investigative procedures and recommending performance improvement interventions, it is anticipated that early investigative errors leading to wrongful convictions can be reduced, ultimately reducing the number of wrongful convictions in Ohio.

Significance of the Study

Understanding the role of police officers in wrongful convictions and incorporating human performance interventions designed to reduce the rates of wrongful convictions are essential for several reasons. Convicting an innocent person of a crime is reprehensible from the perspective of the innocent individual who suffers perhaps many years in prison, endures financial hardship, loses his or her reputation and career, and forfeits lifelong relationships. When a wrongful conviction occurs, the real perpetrator of the crime goes unpunished and perhaps commits additional crimes. Wrongful convictions

may shatter the reputation of the criminal justice system, causing society to lose confidence in the United States' system of justice. Finally, although researchers have indicated that faulty eyewitness identification and false confessions are leading causes of wrongful convictions, little has been accomplished in improving the performance of police officers in these investigative areas, nor have significant attempts been made to improve the ability of police officers to accomplish their duties and reduce the rates of wrongful convictions.

This study may benefit law enforcement officers by improving their efficiency in the performance of their duties. It also may benefit citizens of Ohio by potentially reducing wrongful conviction rates. The social impact of wrongful conviction is immense. This study is important from the perspective of making changes to law enforcement officers' understanding of errors pertaining to eyewitness testimony and false confessions as well as procedures used in the developing suspects.

Much research has been conducted on the topic of wrongful conviction and its possible causes. Researchers have isolated reasons why eyewitness testimony is often erroneous. Researchers also have identified factors that cause people to confess to crimes that they have not committed. Researchers also have provided evidence about the value of human performance technology in addressing performance problems among individuals and within organizations.

While researchers have identified the possible causes of wrongful conviction and traced them both to systemic and human performance issues, limited research has been conducted on the training curriculum that the state of Ohio uses to prepare police officers for duty. Further, little research exists that focuses on experienced Ohio police officer

views and perceptions in obtaining eyewitness and confession evidence, and whether their initial basic training coincides with their experience. In addition, although human performance technology is a viable method utilized to improve performance, little research at this time has examined its use specifically among Ohio police academies and officers for the purpose of reducing wrongful convictions. In response, this study (a) addressed questions that pertain to whether the training curriculum that currently exists in the mandated Ohio peace officer training program compares adequately with current research relating to eyewitness and confession evidence, (b) explored the perceptions of experienced Ohio police officers with regard to obtaining eyewitness and confession evidence, and (c) explored human performance technology as a means of addressing systemic issues that contribute to wrongful conviction.

Research Design And Methods

Theoretical Framework

This is an ethnographic study. A mixed-method approach was used to investigate various cultural aspects of the police community, such as values, beliefs, and behaviors of police officers. The primary research methods that were utilized to conduct this study were document analysis and participant surveys.

The overall educational philosophy that directed this study was social reconstructionism. As an educational philosophy, reconstructionism focuses on progressive social movement that seeks truth and justice. Social reconstructionism focuses on addressing social problems that limit justice and equality while advocating social and political action. According to Weltman (2002), social reconstructionists promote a culture in which people think in terms of “we” rather than “me,” and “us”

rather than “them.” Social reconstruction becomes an ideal that raises consciousness and helps citizens think about social issues and social action. Reconstructionism emphasizes the idea that teaching should lead society into the future, giving students a sense of urgency in developing answers to questions concerning the nature, purpose, and goals of society (Mosier, 1951). According to White (2005), “Humankind must become educated of the possibility of its own conscious transformation and global social evolution” (p. 28). In other words, society should become aware that social norms evolve. Awareness of social issues is important for social transformation to occur. Reconstructionists support the idea that, today, society faces unprecedented globalization. According to reconstructionism, the relationships individuals have with the global community should force them to consider social consciousness. Social change is of great importance within this philosophical and educational framework. Reconstructionism suggests that, in order for social change to occur, people must first be educated about the importance of that change (White, 2005).

The goal of this study was to encourage awareness and active engagement in the social injustice that is present in the U.S. criminal justice system—specifically, the issue of wrongful conviction. Because a social reconstructionism philosophy provides the theoretical foundation for this study, it is hoped that the results might become a catalyst for positive change.

The context of this study aligns with critical theory since it examined aspects of society and culture with the understanding that social institutions are not always fair and just. According to Madison (2005) and Morrow and Brown (1994), critical theory is used in research to examine social institutions and their transformations. It is a critique of

society and the envisioning of new possibilities (as stated in Creswell, 2007). This study involved the application of principles so that judgments can be made relative to bringing about positive change (Seiler, n.d.). More specifically, critical theory is an appropriate approach because this study sought to explore and understand the experiences of police officers in the context of specific investigative knowledge and procedures.

This study was an attempt to examine ways in which the wrongfully convicted are victims of injustice. Critical theory advocates that knowledge is power; therefore, understanding oppression can provide a first step toward taking action directed at changing the possible causes of that oppression. According to Madison (2005) and Thomas (1993), a critical theory researcher might design an ethnographic study to change how people think, to encourage people to become involved and become activists, and to help people examine existing conditions (as stated in Creswell, 2007). Critical theory serves to bring about change that affects the lives of individuals. This study was an attempt to uncover information necessary to change the performance of police officers as they endeavor to deal with eyewitness and confession evidence. According to Seiler (n.d.), researchers working in the tradition of critical theory align themselves with the interests of those oppressed. These researchers critique aspects of society, which in this study consist of law enforcement policies related to the Peace Officer's Training Academy curriculum in the State of Ohio.

This study was ethnographic in nature. First, it examined the culture, values, and beliefs of a particular societal group—in this case, criminal investigators. The study explored knowledge that Ohio law enforcement officers currently have as it pertains to eyewitness and confession evidence, as well as whether that knowledge changed with

time and experience since academy training. The Ohio peace officer curriculum was examined to determine whether its contents align with empirical research pertaining to eyewitness identification and confession evidence.

Secondly, this study examined what can be done from a human performance technology perspective to reduce wrongful convictions in Ohio. According to Pershing (2006), human performance technology systems theory suggests that large organizations are comprised of subsystems. These subsystems are all connected in some way, and one subsystem can (and usually does) affect another subsystem (or subsystems) within an organization. HPT notes that when changes are made to one subsystem within an organization, other subsystems can change as well. Systems theory is the disciplined examination of entire systems and interrelationships rather than just individual parts (Craig, 1996). A systems approach should be used when suggesting changes or interventions designed to improve performance because any changes made will affect other organizational components. Assessments should be conducted to discover how one intervention might relate to other components within an organization or to the entire organization as a whole.

Systems theory suggests that training is not always the answer to problems. Rather, systems theory contends that executives and managers within organizations arrive too quickly at the conclusion that increased training is the answer, when in fact a broader examination of these organizations might reveal other possibilities that improve performance.

Setting, Population, or Phenomena

The geographic setting for this study was limited to law enforcement officers working within the state of Ohio. The examination of human performance improvement interventions was conducted within this geographic setting.

Research was conducted in three urban Ohio cities. These jurisdictions were selected for two reasons: First, the cities have large populations; therefore, officers investigating felony crimes likely have considerable experience with investigative work as well as the opportunity to interact with a wide variety of people in the course of their daily duties. Secondly, these urban cities are geographically diverse across Ohio. This diversity can result in varied cultural beliefs and values among individual investigators. Additionally, the researcher reviewed the Ohio Peace Officer Training Commission's (OPOTC) basic curriculum to identify training information relative to eyewitness evidence as well as interrogation and confession evidence. This curriculum is a product overseen by the office of the Ohio Attorney General and is a standard that must be taught uniformly in every police academy throughout Ohio. Every police recruit must satisfactorily complete this training before becoming a police officer in Ohio.

The final phenomenon studied includes techniques and interventions from the science of human performance technology (HPT) that can be applied to the peace officer basic training curriculum, law enforcement agencies, and individual officers. This final phase of research explored performance improvement methods that, if implemented, can potentially reduce the rates of wrongful convictions.

Researcher's Role

The researcher sought approval from the University of Toledo's Human Subjects Research and Review Committee (HSRRC) prior to conducting the research. The researcher followed established protocols, including the successful completion of the Human Subjects Research Training And Education course required by The University of Toledo (Appendix A). The researcher utilized the same procedures, survey administration, as well as data collection for each agency studied.

The researcher in this study was a certified peace officer in the state of Ohio who worked for 25 years as a deputy sheriff. During that tenure, a strong belief was held, both by the researcher and also law enforcement colleagues, that eyewitness identification and confession to criminal activity were solid evidence indicating guilt of an individual. It is a strongly held belief among law enforcement officials that if a person is found guilty, that person must have committed the crime. It was not until after retirement and reading the nonfiction work of John Grisham titled *The Innocent Man* that the researcher became aware of wrongful convictions and the issues that have contributed to this problem. The researcher questioned whether investigators currently working in Ohio understand the frequency of wrongful convictions and the factors they unknowingly may be involved with that contribute to wrongful convictions.

Data Collection Methods

Police departments in three Ohio cities were selected because of their large population and the fact that investigators in these cities were more likely to have extensive experience investigating felony criminal activity. The police departments in these cities were also selected because of the cultural and ethnic diversity represented

within the population as well as the diversity of the investigators working there. A final reason for selecting these particular cities was their geographic distance from each other, which increased the possibility of variations in culture, values, beliefs, and practices. Each department's chief of police, or his or her designee, generated the list of possible participants in this study. This list was based on criteria that the investigator had at least 5 years experience in felony investigations and at least 25 felony investigations in which he or she was the primary investigator. These criteria assure a high level of experience by those participating in the study. Each investigator meeting the experience criteria was asked to participate in an online questionnaire. The questionnaires were identical for each participant and explored each officer's knowledge and practices relating to eyewitness and confession evidence. The questionnaire was designed to take no longer than 15-20 minutes to complete. Participation was voluntary, and those responding to the survey remained anonymous. Participants provided their informed consent electronically when they checked a box on the electronic questionnaire, indicating they were aware of the risks and benefits of participating in the study. There is no record of who did or did not respond to the questionnaire, and the completed questionnaires did not identify who the responding participants were. There was no tracking of individuals or departments with regard to questionnaire responses. Results were analyzed in aggregates.

A letter outlining the research and requesting participation was sent to the chief of police, or his or her designee, in each jurisdiction targeted for this study (see Appendix B). Acknowledgement of the approval of the study was provided by each chief, or designee, in the form of an approval document sent to the researcher (see Appendix C). The researcher asked the chief of police, or his or her designee, in each city to generate a

list of potential investigators who met experience criteria and who might agree to participate in this study. The criteria that the police chiefs, or their designees, were asked to consider in formulating this list were that the investigators have at least five years of experience conducting felony investigations and at least 25 felony cases on which he or she had served as the primary investigator assigned to the case. These criteria eliminated the possibility that an investigator may have served with the department for a substantial number of years but have little felony investigation experience. It was estimated that the list of potential investigators could include 150 or more individuals from the three departments.

The researcher requested that each police chief, or his or her designee, send a letter or email to each potential participant on the list (see Appendix D). This letter or email was utilized to encourage investigators to participate and also to assure the investigators that the chief, or his or her designee, had approved their involvement in this research project and that their potential participation would be completely voluntary. This letter or email also explained that confidentiality and anonymity would be preserved for all participants in this study. Although the police chiefs, or their designees, within each department knew the names of potential participants, there was no indication on the questionnaire that identified who the participants were. Potential participants were informed about the study and asked to participate by electronically signing the University of Toledo's IRB informed consent form (see Appendix E), which was included within the online questionnaire. No one from the participating departments knew who did or did not participate. Once participants were selected and agreed to participate, an online

questionnaire was presented to explore officers' knowledge and practices used in obtaining eyewitness and confession evidence (see Appendix F).

The researcher reviewed the Ohio peace officer training curriculum document. The researcher compared the current curriculum being taught in police academies across Ohio with information in scholarly literature concerning eyewitness identification and confession evidence. The document review of the peace officer curriculum was conducted using the latest version of the curriculum as produced by the Ohio Peace Officer Training Commission and the Ohio Attorney General's Office.

After the data from surveys and the OPOTC curriculum were collected and analyzed, the researcher made recommendations based on principles of HPT. The researcher also provided human performance intervention suggestions designed to improve the training curriculum, streamline the procedures, and increase the knowledge of officers as they work to collect eyewitness and confession evidence.

Data Management

The researcher posted the informed consent and the survey instrument online within the questionnaire using the survey management online application Survey Monkey. Utilizing a Likert-type scale, participants chose their responses to items on the questionnaire ranging from strongly disagree, to strongly agree. The data from the questionnaires were quantitatively analyzed using the IBM SPSS Statistics software application. The Ohio Peace Officer Training Curriculum utilized for comparison was the latest version available from the Ohio Attorney General's Office (2011). All data were kept in a password-protected computer and/or a locked filing cabinet to which only the researcher had access.

Data Analysis Strategy

The completed survey data were analyzed using SPSS. The data were analyzed to identify similarities and differences among the responses of various officers. Information was produced relating to perceptions and knowledge investigators utilized to gain investigative evidence pertaining to eyewitness identification and confessions. The document analysis of the Ohio peace officer curriculum enlightened the researcher as to what is currently being taught in Ohio's basic training academies. This information can potentially lead to recommended changes in curriculum.

Based on the survey findings and analysis of the current Ohio peace officer training curriculum currently being taught in Ohio's basic police training academies, an HPT systems thinking approach was developed and applied to determine possible performance interventions to help reduce the incidence of wrongful conviction.

Pilot Instrument

The researcher used an Internet-based questionnaire development application (Survey Monkey) to develop and administer the survey. The informed consent form was included as the first item of the questionnaire, followed by 18 content-specific items. Before inviting participants to complete the questionnaire, a draft of the instrument was given to four individuals from non-participating police agencies who volunteered to pilot the survey. These individuals were asked to complete the survey and intentionally try to overwhelm and confuse the online program so that any logistical faults could be corrected prior to investigators participating in the study. No defects were found to have occurred.

Timeline

The data collection and analysis were conducted during the 2012 fall and 2013 spring semesters.

Summary

One intended goal of this study was to determine what is currently being taught in Ohio peace officer training academies regarding eyewitness identification and confession evidence and then compare it to what research indicates should be taught. A second goal was to examine how experienced officers perceive eyewitness and confession testimony as evidence. An examination of perceptions by officers who obtain this evidence can potentially reveal curriculum errors as well as human performance errors that can lead to wrongful conviction. The study was further intended to enlighten practicing police officers about alternatives designed to assure that suspects are correctly identified, thus reducing the incidence of wrongful convictions in Ohio. Finally, it is hoped that the results of this study might be a catalyst for positive change in basic training curriculum and in-service training for Ohio's law enforcement.

Chapter 4

Results

Once an individual has been convicted, reversing the processes that the criminal justice system has put in motion becomes difficult. Even with conclusive evidence of innocence, persuading a court to reexamine a case after a conviction can be difficult and time consuming. Courts within the United States have taken the long-standing position that once a verdict has been reached, conducting new trials is rare unless specific guidelines are met (Petro & Petro, 2010). In light of these judicial conventions, it seemed reasonable that research should focus on prevention and emphasize safeguards directed at reducing the probability of wrongful conviction.

Research has suggested that because of scientific advancement in DNA technology during the past two decades, awareness of the rates of wrongful conviction has increased, which indicates that wrongful conviction has become much more prevalent than once thought (Collins & Jarvis, 2009; Kahn, 2010; Roach, 2010). Studies have shown that the two leading causes of wrongful conviction are (a) faulty eyewitness identifications (b) and false confessions (Collins & Jarvis, 2009; Petro & Petro, 2010). Since suspects' initial contact with the criminal justice system usually begins with police officers, errors leading to wrongful convictions normally originate during the investigative phase. The purpose of this study was to identify the factors associated with law enforcement in Ohio that lead to faulty eyewitness identification and false confessions, then propose performance interventions directed at reducing the current wrongful conviction rate.

Based on the far-reaching problems associated with high rates of wrongful convictions in the United States, this study was guided by the following research questions (RQs):

1. Do differences exist between the current Ohio Peace Officer Training Commission academy curriculum and the recommendations found in the scholarly research regarding eyewitness identification and false confessions as they relate to wrongful conviction?
2. What perceptions do Ohio police officers have regarding obtaining eyewitness identification and confession evidence?
3. What human performance technology intervention(s) could be implemented for Ohio law enforcement regarding eyewitness identification and interrogation methods to reduce wrongful conviction rates?

Data Analysis

A mixed-method approach was used to answer these research questions. Qualitative methods were used to answer Research Question 1 (RQ1). Quantitative methods were used to answer Research Question 2 (RQ2). Research Question 3 (RQ3) was an applied question and is discussed in detail in Chapter 5 of this study. In preparation for answering RQ2, the researcher conducted a pretest to identify any possible mechanical or logistical problems with the online survey.

Research Question One: Curriculum and Research

The Ohio Peace Officer Training Commission (OPOTC) curriculum consists of 13 units (e.g., Administration, Legal, Human Relations, Firearms, etc.). Each unit consists of a combination of training documents in PDF format and PowerPoint (PPT)

files that instructors use to teach police cadets. The PDF documents for each unit are divided into sections, such as “Course Materials,” “Note to Instructor,” “Student Performance Objectives,” “Preparation,” etc. The PowerPoint presentations are used to augment the curriculum and contain information used to enhance peace officer training.

In order to identify sections within the OPOTC focusing on wrongful conviction and eyewitness testimony, the researcher used a qualitative data analysis software application (NVivo). Because NVivo recognizes PDF files, the PowerPoint presentations were converted to PDF files. Then, all of the PDFs were imported into the NVivo software application. The OPOTC curriculum also contains a small number of videos, but because NVivo is unable to convert videos to document form, these files were not included in the NVivo analysis.

Based on terms identified within the research literature, NVivo was used to identify sections within the OPOTC curriculum documents that focus on eyewitness identification and confession evidence. Search terms included the following: *Eyewitness testimony, eyewitness evidence, eyewitness identification, eyewitness accuracy, confession evidence, interrogation procedure, wrongful conviction, detain, questioning, confession, admission, coerce, intimidate, involuntary coerced confession, interview, and interrogation techniques*. Once areas within the OPOTC curriculum were identified pertaining to eyewitness testimony and wrongful conviction, the researcher compared these sections of the OPOTC curriculum with results of empirical studies as well as information provided by other experts in the research literature.

In comparing the OPOTC curriculum with empirical research conducted in areas of interrogation techniques and eyewitness identification, NVivo qualitative data analysis

software was used to locate areas within the OPOTC curriculum that address these two topics. Several sections within the OPOTC curriculum were found to contain substantial information relating both to interrogation techniques and also eyewitness identification.

Starting with the topic of interrogation, the researcher reviewed the OPOTC curriculum being taught to police cadets. This curriculum provides practical instructions for police officers when conducting interrogations. The researcher also reviewed the legal sections of the OPOTC curriculum that pertain to interrogation.

After reviewing sections of the OPOTC curriculum that focus on interrogation, the researcher examined sections within the curriculum that inform police cadets about eyewitness testimony. Again, the researcher reviewed sections that relate to the practical application of eyewitness evidence. In reviewing the legal section of the OPOTC curriculum, the researcher found no explicit information pertaining to eyewitness evidence.

Interrogation—practical application. Several sections within Unit 11 (Investigation) of the OPOTC curriculum address the topic of interrogation. Unit 11 is subdivided into specific categories, one of which is “Interview and Interrogation.” Within that category are further subdivisions titled “Purposes of Interrogation,” “Characteristics Interrogators Should Have,” and “Techniques of Interrogation.”

After reviewing these sections of the curriculum, the researcher determined that they do in fact agree with the results of scholarly research on proper interrogation techniques. The following is an example of agreement between the results of empirical research studies and the OPOTC curriculum (Interview & Interrogation Techniques, 2011):

- (1) The tone of the interrogation should be objective, not subjective in nature, neither biased for nor prejudiced against the person being questioned (p. 9).
- (2) The interrogation must be conducted in a completely impartial manner (p. 9).
- (3) Don't threaten, coerce, or intimidate the suspect into making a statement (p. 18).

Within this same area (Unit 11) of the OPOTC curriculum (Interview & Interrogation Techniques, 2011), however, recommendations are also provided that seems to contradict best practices described in the research literature:

- (1) Point out that the suspect cannot win (p. 12).
- (2) Produce just enough evidence or information to make the suspect think you know everything (p. 12).
- (3) Advise each suspect the other has confessed (p. 12).
- (4) Advise one suspect that the other suspect is blaming him/her for everything (p. 12).
- (5) Point out the advantages of confessing and the disadvantages of not confessing (p. 17).

These statements within the OPOTC curriculum advocate the use of deception in the interrogation process; however, they contradict the results and recommendations that have been reported in empirical research. For example, Leo and Drizin (2010) have pointed out that the following practices can lead to false confessions:

American police often confront suspects with fabricated evidence, such as nonexistent eyewitnesses, false fingerprints, make-believe videotapes, fake polygraph results, and so on. The purpose of this technique is to convince the

suspect that the state's case against him or her is so compelling and immutable that his or her guilt can be established beyond any possible doubt and that arrest, prosecution, and conviction are therefore inevitable. (p. 19)

Ofshe and Leo (1997) as well as Zimbardo (1971) have suggested that “police-induced false confessions result from a multistep process and sequence of influence, persuasion, and compliance, and they usually involve psychological coercion” (as cited in Leo & Drizin, 2010, p. 12). Leo and Drizin (2010) further suggested that the first mistake leading to false confession occurs when a police officer erroneously makes the decision to classify an innocent person as guilty. These findings confirm what Leo and Davis (2010) suggested—i.e., that police training has failed to properly teach officers about the adverse effects that interrogation may have on a suspect. Leo and Davis (2010) suggested that “many American police not only fail to understand the causes and effects of police-induced false confessions, but they also possess incorrect and misleading beliefs based on their training” (p. 43).

There appears no substantial language in the OPOTC curriculum that warns police cadets about the potential false-confession dangers that may result from misrepresenting evidence and/or knowledge of an investigation during interrogation. Training about the psychological effects of strategies during an interrogation (especially those that employ deception) appears to be absent from the OPOTC curriculum.

Interrogation—legal application. The legal section (Unit 2) of the OPOTC curriculum, (Legal Aspects of Interview & Interrogation, 2011) mentions important information that a police officer must follow in order to legally obtain a confession:

A confession must pass some hurdles before it may be received as evidence in a court of law; it must be voluntary and trustworthy; it must not be obtained as a result of violation of the defendant's Miranda rights; it must not be obtained in violation of the defendant's right to counsel. (OPOTC, Legal Aspects of Interview and Interrogation, 2011, p. 9)

This portion of the curriculum indicates that for a confession to be valid, it must be given freely and voluntarily, without duress, and with full knowledge of the consequences. Specifically, the OPOTC curriculum (Legal Aspects of Interview & Interrogation, 2011) states that

a confession is voluntary if it was not secured through psychological or physical intimidation but rather was the product of a rational intellect and free will. The test for a voluntary confession is whether the defendant's will was overborne at the time he confessed. The test of voluntariness of a confession is whether the confession was made without compulsion or inducement of any sort and whether the defendant's will had been overborne at the time of the confession. (p. 9)

The curriculum further indicates that, in determining whether a confession is voluntary, a court considers the conditions of the interrogation, the conduct of law enforcement officials, the nature of the questioning, whether there was physical abuse, and whether psychologically coercive tactics were used. The curriculum includes these statements:

Psychological coercion can constitute police misconduct that renders a confession involuntary and even subtle psychological coercion may render a confession inadmissible. The attention of the courts must be on the behavior of the police and

the mental and physical makeup of the defendant in order to determine whether the statement of the defendant was the product of a rational intellect and free will.

(Legal Aspects of Interview & Interrogation, 2011, p. 12)

This instruction is consistent with empirical research on the psychological effects of interrogation upon a suspect; however, these statements do not align with the instructions within Unit 11, which encourage deceptive tactics.

Eyewitness evidence—practical application. Unit 11 of the OPOTC curriculum offers limited information to police cadets about the nature and importance of eyewitness evidence. The relatively sparse information provided in the “Lineup” section the OPOTC curriculum about eyewitness information is surprising in contrast to the influence research has indicated that inaccurate eyewitness testimony and eyewitness evidence have on wrongful convictions. Cicchini et al. (2010) have indicated that eyewitness identification evidence is unreliable and is in fact the leading cause of wrongful convictions. Roach (2010) also pointed out that DNA exonerations have shown that mistaken eyewitness identification is the leading cause of wrongful convictions, even when the eyewitnesses themselves frequently have been the victims of the crime.

The information regarding eyewitness identification that is presented in the “Lineup” section of the OPOTC curriculum does seem to coincide with scholarly research. For example, Gould et al. (2010) have suggested that the police can exert subtle influence in the form of suggestiveness during identification procedures. Roach (2010) also has indicated that police should utilize more effective eyewitness identification procedures to minimize erroneous identifications. Roach has advocated the use of sequential photographic arrays as well as double-blind procedures in which police

officers conducting the procedure do not know the identity of the suspect and cannot inadvertently indicate the police suspect to the witness.

As a precaution about how to avoid influencing a witness when pointing to a suspect in a criminal case, either in photographs or in a physical lineup, the curriculum suggests using a “blind administrator” when conducting physical or photo lineups:

- (1) Senate Bill 77 (2010) calls for a “Blind Administrator” to be used at all lineups, to include photo arrays, photo lineups, and physical lineups. (a) “Blind Administrator” is an individual who does not know the identity of the suspect in a lineup (b) “Blinded Administrator” knows the identity of the suspect, but does not know which lineup member the eyewitness is viewing by use of a “Folder System” (c) If it is impracticable to use either a “Blind” or “Blinded” Administrator, the reasons must be documented. (OPOTC, Lineups, 2011, pp. 14-15)

The curriculum further suggests procedures police should utilize when conducting a photo array. The curriculum advocates the use of a suspect photo along with five other non-suspect photos. These non-suspect photos should closely resemble the suspect photo and not cause the suspect to stand out.

Although information that aligns with the empirical research is addressed in the OPOTC curriculum with regard to photo and physical lineups, the OPOTC curriculum contains little information regarding field identification. Field identification is the identification of a suspect by a victim or witness immediately following a crime. According to Joffe (2010), one of the reasons that eyewitness testimony has been considered faulty and unreliable hinges on the complexity of the psychological processes involved in reconstructing memory. Joffe stated the following:

Contrary to popular belief, the human mind does not operate like a video camera, gathering and recording every detail of an event and accurately retaining it for later playback. Instead, human memories are formed through a highly complex process in which images and details of events are constantly altered through the integration of new experiences and interpretations. (p. 446)

Gould et al. (2010) suggested that when victims are confronted with a weapon during a violent crime, their focus may be so aimed at the weapon that later they are unable to provide accurate details describing the perpetrator. Gould et al. (2010) further suggested that the issue of misidentification becomes more pronounced if the victim and perpetrator are of different races. In many eyewitness reports, there are few similarities between the eyewitness identification and the actual events of the incident.

Research Question Two: Perceptions of Police

To answer RQ2, an 18-item electronic questionnaire was administered to participants at four large police departments located in Ohio. The informed consent (see Appendix E) and the questionnaire (see Appendix F) were posted online and made available to participants on November 15, 2012.

On November 15, 2012, a data collection letter (see Appendix G) was emailed to the department contacts in the four cities that had agreed to participate in the study. This letter explained that the questionnaire was available online and ready for completion by participants. Attached to that email was a letter to the participant pool (see Appendix D). Department contacts were asked to electronically distribute this letter to all police officers who met the experience criteria and encourage them to participate in the study. The letter written to the participant pool included the online Survey Monkey link to the

questionnaire. The participants could click on the link, which would allow them to access the informed consent and questionnaire.

On November 19, 2012, the researcher followed up with each departmental contact by phone to be certain they had received the informed consent information, the data collection letter, and the website address for the questionnaire. By November 29, 2012, all contacts had confirmed receipt. On December 4, 2012, another letter (see Appendix H) was emailed to all department contacts. The purpose of this letter was to offer assistance in addressing any concerns department contacts might have and to ask them to remind all potential participants about the online questionnaire. On January 3, 2013, another email (Appendix I) was sent to all department contacts in the study, again asking them to remind their participant pool about the questionnaire and emphasizing the importance of the study. They were also informed in this correspondence that the questionnaire would be taken offline on January 15, 2013. On January 14, 2013, a final follow-up email (see Appendix J) was sent to all contacts reminding them that the survey would be taken offline the next day and thanking them for their participation. On January 15, 2013, the questionnaire was taken offline, and the data collection phase was terminated. At that time, there had been a total of 65 responses to the online survey.

On February 4, 2013, a voicemail was received from one departmental contact indicating that the department had failed to participate in the survey. The contact inquired whether the survey could be put back online so that members of that department could participate. On February 8, 2013, an email confirmation was received from that department indicating that they had never distributed the survey to its participant pool. A decision was made to not put the survey back online and to eliminate that particular

department from the study. The study was amended to reflect answers from participants in three large Ohio police departments instead of four.

The approximate total of possible participants who met established experience criteria from the participating departments are documented as follows:

Department 1: 45

Department 2: 60

Department 3: 42

There were 65 responses to the online questionnaire, and the rate of response was approximately 44%.

Participants were asked to answer 18 questionnaire items that used the following Likert-type response scale: (1) strongly agree, (2) agree, (3) neutral, (4) disagree, (5) strongly disagree.

In order to answer RQ2, the researcher used IBM SPSS Statistics, a quantitative analysis software application. Specifically, four one-way analyses of variance (ANOVAs) were conducted. The purpose of these analyses was to determine whether statistically significant differences existed in the responses to each item based on the demographic characteristics of participants (i.e., gender, ethnicity, age, and education).

The demographics were categorized as follows: (1) Gender: 41 males and 19 females. Five participants did not respond to this survey item. (2) Ethnicity and Nationality: 31 White or Caucasian, 2 Black or African American, 1 Native American, 1 Hispanic, 2 Other. Twenty-eight participants did not respond to this survey item. (3) Age ranges: 1 (21-30), 10 (31-40), 34 (41-50), 16 (51-60), 61+ (0). Four participants did not respond to this survey item. (4) Education: 20 (High School), 13 (Associate's Degree), 22

(Bachelor's Degree), 7 (Graduate Degree). Three participants did not respond to this survey item. The following tables indicate the number and percentage of participants in each of the following factor categories: gender, ethnicity, age ranges, and education level:

Table 1
Gender of Participants

	n	%
Male	41	68.3%
Female	19	31.7%

Note. 5 participants did not respond to this survey item.

Table 2
Ethnicity and Nationality of Participants

	n	%
White or Caucasian	31	83.6%
Black or African American	2	5.5%
Native American	1	2.7%
Hispanic	1	2.7%
Other	2	5.5%
Total	37	100%

Note. 28 participants did not respond to this survey item.

Table 3
Age Ranges of Participants

	n	%
21-30	1	1.7%
31-40	10	16.4%
41-50	34	55.7%
51-60	16	26.2%
61+	0	0.0%
Total	61	100%

Note. 4 participants did not respond to this survey item.

Table 4
Education of Participants

	n	%
High School	20	32.3%
Associate's Degree	13	21%
Bachelor's Degree	22	35.4%
Graduate Degree	7	11.3%
Total	62	100%

Note. 3 participants did not respond to this survey item.

For each independent variable (i.e., gender, ethnicity, age, and education), an independent one-way ANOVA was conducted on the responses to each of the 18 questionnaire items. ANOVAs were used to determine whether significant differences existed among the mean scores of participants within each independent variable (i.e., gender, ethnicity, age, and education). When statistically significant differences were found, *post hoc* analyses were conducted (specifically, the Scheffe test) in order to determine which scores were statistically significantly different. The alpha level threshold for the ANOVAs that was established for statistical significance was $p < .05$. However, ANOVA results with alpha levels that were $p < .10$, while not statistically significant, are also discussed as they remain meaningful.

Results

Gender

A one-way analysis of variance showed that there were statistically significant differences ($p < .05$) between the mean scores of males and females on 3 of the 18 questionnaire items (items 6, 7, and 9) (see Table 5). Although not statistically significant, clinically significant differences ($p < .10$) were found between the mean scores of males

and females on an additional 3 of the 18 questionnaire items (Item 5, Item 13, and Item 17).

Table 5
Between-Groups ANOVA Comparing Survey Responses by Gender

Survey Item	SS	df	Mean Square	F	Sig.
1	.206	1	.206	.389	.535
2	.075	1	.075	.160	.691
3	.316	1	.316	.659	.420
4	1.011	1	1.011	1.136	.291
5	3.219	1	3.219	3.667	.061*
6	4.022	1	4.022	9.141	.004**
7	6.914	1	6.914	10.896	.002**
8	.001	1	.001	.001	.981
9	7.983	1	7.983	11.480	.001**
10	.093	1	.093	.231	.633
11	.325	1	.325	.426	.517
12	.777	1	.777	1.258	.267
13	3.704	1	3.704	3.109	.084*
14	.146	1	.146	.123	.727
15	.304	1	.304	.519	.474
16	1.661	1	1.661	2.551	.116
17	2.329	1	2.329	2.983	.090*
18	.422	1	.422	.676	.415

**p<.05

*p<.10

Item 6. A one-way analysis of variance showed that there were statistically significant differences ($p<.05$) between the mean scores of males and females on Item 6 (“If a suspect confesses during an interrogation, the suspect is usually guilty”), $F(1,55) = 9.14$, $p = .004$. Post hoc analyses using the Scheffe post hoc criterion for significance indicated that the average score on this item was statistically significantly higher for female investigators ($M = 2.26$, $SD = .805$) than for male investigators ($M = 1.69$, $SD = .576$). This suggests that female investigators believe more strongly than do male investigators that confession is not necessarily an indicator of guilt.

Item 7. A one-way analysis of variance showed that there were statistically significant differences ($p < .05$) between the mean scores of males and females on Item 7 (“Innocent people rarely confess to crimes they have not committed”), $F(1,55) = 10.89$, $p = .002$. Post hoc analyses using the Scheffe post hoc criterion for significance indicated that the average score on this item was statistically significantly higher for female investigators ($M = 2.57$, $SD = 1.01$) than for male investigators ($M = 1.83$, $SD = .654$). This suggests that female investigators believe more strongly than do male investigators that innocent people may confess to crimes they in fact have not committed.

Item 9. A one-way analysis of variance showed that there were statistically significant differences ($p < .05$) between the mean scores of males and females on Item 9 (“When a confession to a crime is obtained, I feel the case is pretty well wrapped up”), $F(1,55) = 11.48$, $p = .001$. Post hoc analyses using the Scheffe post hoc criterion for significance indicated that the average score on this item was statistically significantly higher for female investigators ($M = 3.57$, $SD = .837$) than for male investigators ($M = 2.77$, $SD = .831$). This suggests that female investigators believe more strongly than do male investigators that a confession by a suspect does not necessarily mean the case is solved.

Item 5. A one-way analysis of variance showed that there were clinically significant differences ($p < .10$)¹ between the mean scores of males and females on Item 5 (“The race or ethnicity of a suspect does not affect the accuracy of eyewitness identification”), $F(1,55) = 3.66$, $p = .061$. Post hoc analyses using the Scheffe post hoc

¹ Although an alpha level of $p < .10$ does not reach the threshold of statistical significance, the researcher considered results at this level to be meaningful and worth reporting; however, because these results are not statistically significant, they should be interpreted with caution.

criterion for significance indicated that the average score on this item was higher for female investigators ($M = 2.84$, $SD = 1.067$) than for male investigators ($M = 2.33$, $SD = .861$). This suggests that female investigators may be more likely than male investigators to recognize that ethnicity can affect eyewitness testimony.

Item 13. A one-way analysis of variance showed that there were clinically significant differences ($p < .10$) between the mean scores of males and females on Item 13 (“I recall at least one time when I knew an eyewitness was wrong in pointing out a suspect”), $F(1,54) = 3.10$, $p = .084$. Post hoc analysis using the Scheffe post hoc criterion for significance indicated that the average score on this item was higher for male investigators ($M = 2.50$, $SD = 1.055$) than for female investigators ($M = 1.94$, $SD = 1.161$). This suggests that male investigators may believe more strongly that it is possible for eyewitnesses to identify an innocent suspect.

Item 17. A one-way analysis of variance showed that there were clinically significant differences ($p < .10$) between the mean scores of males and females on Item 17 (“Compared to what I was taught in the police academy, my field experiences as an investigator have changed my views about confession evidence”), $F(1,55) = 2.98$, $p = .090$. Post hoc analyses using the Scheffe post hoc criterion for significance indicated that the average score on this item was higher for male investigators ($M = 3.22$, $SD = .831$) than for female investigators ($M = 2.78$, $SD = .976$). This suggests that male investigators more than female investigators may believe that their field experience has influenced their views about confession evidence compared to the training they received in the police academy.

Age

A one-way analysis of variance showed that there were statistically significant differences ($p < .05$) between the mean scores of participants within different age groups on 1 of the 18 questionnaire items (Item 4) (see Table 6). Although not statistically significant, clinically significant differences ($p < .10$) were also found between the mean scores of participants within different age groups on an additional 3 of the 18 questionnaire items (Item 5, Item 6, and Item 11).

Table 6
Between-Groups ANOVA Comparing Survey Responses by Age Range

Survey Item	SS	df	Mean Square	F	Sig.
1	1.638	2	.819	1.603	.211
2	.934	2	.467	1.016	.369
3	1.882	2	.941	2.054	.139
4	9.698	2	4.849	7.486	.001**
5	4.395	2	2.198	2.764	.072*
6	2.153	2	1.077	2.706	.076*
7	.309	2	.155	.220	.803
8	.313	2	.157	.125	.883
9	2.153	2	1.077	1.311	.278
10	.018	2	.009	.023	.977
11	4.302	2	2.151	2.991	.059*
12	2.448	2	1.224	2.006	.145
13	1.696	2	.848	.694	.504
14	4.077	2	2.038	2.100	.133
15	.528	2	.264	.547	.582
16	2.073	2	1.037	1.581	.216
17	1.709	2	.855	1.157	.322
18	2.026	2	1.013	1.774	.180

** $p < .05$

* $p < .10$

Item 4. A one-way analysis of variance showed that there were statistically significant differences ($p < .05$) between the mean scores of participants within different age groups on Item 4 (“When a witness identifies a suspect, the case is usually closed

soon afterward”), $F(2,52) = 7.48$, $p = .001$. Post hoc analyses using the Scheffe post hoc criterion for significance indicated that the average score on this item was statistically significantly higher for investigators in the 51-60 age range ($M = 3.73$, $SD = .883$) than in other age ranges. This suggests that investigators in the 51-60 age range believe that cases tend to remain open even though a witness has identified a suspect.

Item 5. A one-way analysis of variance showed that there were clinically significant differences ($p < .10$) between the mean scores of participants within different age groups on Item 5 (“The race or ethnicity of a suspect does not affect the accuracy of eyewitness identification”), $F(2,52) = 2.76$, $p = .072$. Post hoc analyses using the Scheffe post hoc criterion for significance indicated that the average score on this item was higher for investigators in the 41-50 age range ($M = 2.68$, $SD = .859$) than it was for investigators in the 51-60 age range ($M = 2.40$, $SD = .985$) or 31-40 age range ($M = 1.87$, $SD = .834$). This suggests that investigators in the 41-50 age range may believe more strongly than investigators in other age ranges that ethnicity may affect the accuracy of eyewitness identification.

Item 6. A one-way analysis of variance showed that there were clinically significant differences ($p < .10$) between the mean scores of participants within different age groups on Item 6 (“If a suspect confesses during an interrogation, the suspect is usually guilty”), $F(2,52) = 2.70$, $p = .076$. Post hoc analyses using the Scheffe post hoc criterion for significance indicated that the average score on this item was higher for investigators in the 41-50 age range ($M = 1.93$, $SD = .504$) than it was for investigators in the 31-40 age range ($M = 1.37$, $SD = .517$). This suggests that investigators in the 41-50

age range may believe more strongly than investigators in other age ranges that a confession does not necessarily mean guilt.

Item 11. A one-way analysis of variance showed there were clinically significant differences ($p < .10$) between the mean scores of participants within different age groups on Item 11 (“My training in the police academy about eyewitness identification evidence is consistent with my experiences in the field”), $F(2,51) = 2.99$, $p = .059$. Post hoc analyses using the Scheffe post hoc criterion for significance indicated that the average score on this item was higher for investigators in the 51-60 age range ($M = 3.26$, $SD = .883$) than it was for investigators in the 41-50 age range ($M = 3.06$, $SD = .504$) or 31-40 age range ($M = 2.37$, $SD = .517$). This suggests that investigators in the 51-60 age range feel more strongly than investigators in other age ranges that the training they received in the police academy is inconsistent with their experiences in the field.

Education

A one-way analysis of variance showed that there were statistically significant differences ($p < .05$) between the mean scores of participants at different educational levels on 1 of the 18 questionnaire items (Item 3) (see Table 7). Although not statistically significant, clinically significant differences ($p < .10$) were also found between the mean scores of participants at different educational levels on 1 of the 18 questionnaire items (Item 18).

Table 7
Between-Groups ANOVA Comparing Survey Responses by Education

Survey Item	SS	df	Mean Square	F	Sig.
1	.810	3	.270	.522	.669
2	1.137	3	.379	.848	.474
3	3.633	3	1.211	2.851	.046**
4	1.686	3	.562	.631	.598
5	2.243	3	.748	.793	.503
6	1.145	3	.382	.771	.515
7	1.642	3	.547	.730	.539
8	1.270	3	.423	.339	.797
9	1.610	3	.537	.629	.599
10	1.996	3	.665	1.787	.161
11	3.015	3	1.005	1.350	.269
12	1.344	3	.448	.709	.551
13	.515	3	.172	.134	.939
14	.517	3	.172	.141	.935
15	2.538	3	.846	1.516	.221
16	1.937	3	.646	.962	.418
17	1.588	3	.529	.641	.592
18	4.523	3	1.508	2.675	.057*

**p<.05

*p<.10

Item 3. A one-way analysis of variance showed that there were statistically significant differences ($p<.05$) among the mean scores of participants at different educational levels on Item 3 (“I have confidence in the accuracy of eyewitness identifications when developing a suspect”), $F(3,53) = 2.85$, $p = .046$. Post hoc analyses using the Scheffe post hoc criterion for significance indicated that the average score on this item was higher for investigators who had acquired a bachelor’s degree ($M = 2.71$, $SD = .717$) than for those who had acquired a high school diploma ($M = 2.68$, $SD = .671$), a graduate degree ($M = 2.40$, $SD = .547$) or an associate’s degree ($M = 2.08$, $SD = .514$). This suggests that officers with bachelor’s degrees have less confidence in the accuracy

of eyewitness identifications when developing suspects than do investigators at other education levels.

Item 18. A one-way analysis of variance showed that there were clinically significant differences ($p < .10$) among the mean scores of participants at different educational levels on Item 18 (“It is possible I may have contributed to a wrongful conviction”), $F(3, 52) = 2.67$, $p = .057$. Post hoc analyses using the Scheffe post hoc criterion for significance indicated that the average score on this item was higher for investigators who had acquired an associate’s degree ($M = 4.83$, $SD = .389$) than for those who had acquired a bachelor’s degree ($M = 4.52$, $SD = .813$), a high school diploma ($M = 4.27$, $SD = .826$) or a graduate degree ($M = 3.80$, $SD = .836$). This suggests that investigators with associate’s degrees may believe more strongly than do investigators at other education levels that they have not contributed to a wrongful conviction.

Due to the fact that no statistically significant differences occurred in the ethnicity groups, no post hoc testing was conducted related to this factor.

Research Question Three: Human Performance Technology Interventions

RQ3 is an applied question. Conventional qualitative or quantitative methodology cannot be utilized in answering RQ3. “Human performance technology is the study and ethical practice of improving productivity in organizations by designing and developing effective interventions that are results-oriented, comprehensive, and systemic” (Pershing, 2006, p. 6). It is from that perspective that the researcher in Chapter 5 discusses in detail human performance technology (HPT) interventions designed to reduce the rates of wrongful convictions in Ohio.

Chapter 5

Discussion

During the past two decades, DNA research has identified an alarming number of wrongful criminal convictions. Researchers such as Ramsey (2003), Huff and Rattner (1988), Kahn (2010), and Petro and Petro (2010) have proposed that between 1% and 3% or more of people now imprisoned may be innocent of the crimes for which they have been accused.

There were three distinct purposes of this study. The first was to explore the Ohio Peace Officer's Training Commission (OPOTC) curriculum and compare what is currently being taught in police academies throughout Ohio with scholarly research that has been conducted in the areas of faulty eyewitness identification and false confessions—the two main causes that research has shown lead to wrongful convictions (Collins & Jarvis, 2009; Petro & Petro, 2010). The second purpose of the study was to investigate the perceptions of experienced investigators about their field experiences with eyewitness identification and confession evidence to determine whether differences in these perceptions exist based on gender, age, race, and education. Third, this study explored human performance technology (HPT) interventions as a means of reducing the rates of wrongful convictions in Ohio. Improvement of performance among law enforcement personnel could potentially reduce the number of errors leading to wrongful conviction early in an investigation.

Because a suspect's initial contact with the criminal justice system usually begins with a police investigation, errors leading to wrongful convictions normally originate during the investigative phase. It is important to understand the content of the OPOTC

curriculum, as well as the perceptions that experienced investigators have during their investigations, so that greater alignment can be achieved among the OPOTC curriculum, the perceptions of investigators about eyewitness testimony and wrongful conviction, empirical research, and field practices.

Research Questions

The following research questions guided this study:

Research Question 1: Do differences exist between the current Ohio Peace Officer's Training Commission academy curriculum and the recommendations found in the scholarly research regarding eyewitness identification and false confessions as they relate to wrongful conviction?

Research Question 2: What perceptions do Ohio police officers have regarding obtaining eyewitness identification and confession evidence?

Research Question 3: What human performance technology intervention(s) could be implemented for Ohio law enforcement regarding eyewitness identification and interrogation methods to reduce wrongful conviction rates?

Summary of Methods

A mixed-method approach was used to answer these research questions. Qualitative methods were used to answer Research Question 1 (RQ1). Quantitative methods were used to answer Research Question 2 (RQ2). An applied research method was used to answer Research Question 3 (RQ3).

RQ1: In order to identify sections within the OPOTC focusing on wrongful conviction, eyewitness identification, and confession evidence, the researcher used a qualitative data analysis software application (NVivo). Based on terms identified within

the research literature, NVivo was used to identify sections within the OPOTC curriculum documents that focus on eyewitness identification and interrogations/confessions. The outcome of this analysis was compared to scholarly research on those topics.

RQ2: An 18-item electronic questionnaire was administered to participants at three urban police departments located in Ohio. Prior to administering the questionnaire, the researcher conducted a pilot survey to identify any possible mechanical or logistical problems with the online questionnaire. The researcher used IBM SPSS Statistics, a quantitative analysis software application, to analyze the data from the questionnaire. Specifically, four one-way analyses of variance (ANOVAs) were conducted. The purpose of these analyses was to determine whether statistically significant differences existed in the responses to each item based on selected demographic characteristics of participants (i.e., gender, ethnicity, age, and education).

RQ3: Scholarly articles relating to HPT, as well as to eyewitness identification and to false confessions, were reviewed. These scholarly articles were then compared with results of this study, as reported in Chapter 4, to determine feasible suggestions directed at reducing the rates of wrongful convictions.

Summary Of Findings

The results of the study indicated that important differences exist between what is taught in the police academy and scholarly research pertaining to the interrogation of suspects. The OPOTC curriculum provides practical and legal advice to police recruits that is in alignment with empirical research, but in the same content section of the OPOTC curriculum, there are contradictory statements. Missing from the curriculum is

language directed at instructing police recruits about the adverse effects of psychological coercion, which can lead to false confessions. Minimal material was located in the curriculum that specifically addresses eyewitness show-ups (field identifications), and no material was located that addresses the inadequacies of eyewitness identification.

The results of this study indicate that gender, age, and education factors affect the perceptions that experienced investigators have regarding eyewitness identification confessions. The results of this study also indicate that perceptions of experienced investigators tend to change across time with regard to eyewitness identification and confession evidence compared to what they learned in the academy.

Discussion

Research Question 1

RQ1: Do differences exist between the current Ohio Peace Officer's Training Commission academy curriculum and the recommendations found in the scholarly research regarding eyewitness identification and false confessions as they relate to wrongful conviction?

Eyewitness identification. The OPOTC curriculum, in addressing eyewitness identification, is primarily limited to instruction relating to lineups and photo arrays, as discussed in "Lineups" (OPOTC, 2011). Material located in the OPOTC curriculum regarding lineups and photo arrays was found to be in alignment with empirical research on the subject of eyewitness identification. Several examples of this alignment found in "Lineups" include (a) making sure that all participants are as consistent in their appearance as possible, (b) ensuring that the suspect does not appear to be in custody, and (c) using a "blind administrator" who does not know the identity of the suspect (OPOTC,

2011). This suggests that instruction and training practices within Ohio's police academies conforms to and reflects the most current research about eyewitness testimony and its role in wrongful conviction.

It is important to note that minimal instructional material was found in the "Lineup" section of the curriculum (OPOTC, 2011), that specifically addresses eyewitness "show-ups," often referred to as field identifications. Although mention is made regarding a show-up's suggestiveness, there was no material found that expounds upon how that suggestiveness can begin the process of wrongful conviction. Cicchini et al. (2010) have provided an example of how eyewitness suggestiveness can enter into an investigation early on in the form of show-ups:

A show-up is an identification procedure in which police present a single suspect to an eyewitness and then ask the eyewitness whether the suspect is the perpetrator. Typically, show-ups are conducted in the area of, and shortly after, the alleged crime. Often when the eyewitness views the sole suspect, the suspect will be in police custody and may even be hand-cuffed or locked in a police squad car. Show-ups are very convenient for law enforcement as they allow for quick and easy resolution of the investigation, without having to take the time to assemble a lineup or photo array. (p. 388)

This convenience for law enforcement officers often comes at a high price due to the risk of misidentification. When an eyewitness views a single suspect in a police show-up (instead of six or eight individuals, as would be the case when a witness is presented with a lineup or photo array), and this suspect is presented by a police officer,

most people would assume the officer has apprehended the right person (Cicchini et al., 2010).

Gould et al. (2010) also have noted that the natural and inherent psychological processes involved in eyewitness misidentification are complex and intricate:

“Eyewitness misidentification is caused by natural psychological errors in human judgment” (p. 841). To the extent that eyewitness misidentification is complex and intricate, Cicchini et al. (2010) indicated that eyewitness identification evidence is often unreliable and is, in fact, the leading cause of wrongful convictions. Roach (2010) pointed out that DNA exonerations also have shown that eyewitness misidentification is the leading cause of wrongful convictions, even when the eyewitnesses themselves frequently have been the victims of the crime.

In addition to a substantial lack of material within the OPOTC curriculum that addresses procedural protocol in show-ups, there is also no instruction presented in the curriculum that alerts police recruits to the fallacies and dangers of eyewitness identification or that addresses faulty eyewitness identification as a leading cause of wrongful convictions. Many police officers perceive eyewitness identification as powerful evidence and are not aware of flaws associated with it. Information associated with witnesses’ recollections, the physical and psychological changes witnesses undergo during stressful times, and the mechanics of memory are all topics that have not been well articulated to police officers either at the academy or in the field. Since “show-ups” are an integral part of law enforcement, procedures for this type of eyewitness evidence should be presented to police cadets in the form of instruction directed at procedures that result in fairness and accuracy.

False confessions. Sections within the OPOTC curriculum pertaining to interrogations provide police recruits practical and legal advice that is in alignment with empirical research, but in the same content section of the curriculum, there are contradictory statements. For example, in the “Interview and Interrogation Techniques” section of the OPOTC curriculum advocates voluntary and trustworthy confessions, yet, at the same time, the curriculum also recommends that police officers use deception in order to persuade a suspect to confess (OPOTC, 2011). Leo and Drizin (2010) have pointed out that fabricated evidence has been used to convince suspects that the State’s case against them is so compelling that their guilt will be established. Likewise, Zimbardo (1971) and Ofshe and Leo (1997) have suggested that “police-induced false confessions result from a multistep process and sequence of influence, persuasion, and compliance, and they usually involve psychological coercion” (as cited in Leo & Drizin, 2010, p. 12). According to Ofshe and Leo (1997), methods that psychologically coerce suspects’ “perception of the situation, expectations of the future, and motivation to shift from denial to admission are some of the primary causes of false confession” (as cited in Leo & Drizin, 2010, p. 17).

The “Legal Aspects of Interview and Interrogation” section of the OPOTC curriculum indicates that for a confession to be valid, it must be given freely and voluntarily, without duress, and with full knowledge of the consequences (OPOTC, 2011). This same section also states that a confession is valid only if it was not secured through psychological intimidation but rather as a product of rational intellect and free will (OPOTC, 2011). The test for a voluntary confession is whether a suspect’s will was overcome at the time he or she confessed. However, the “Interview and Interrogation

Techniques” section of the OPOTC curriculum also informs cadets that deception is recommended as a means to secure a confession. Examples of this contradictory and deceptive language can be found in the curriculum and include the following circumstances and procedural recommendations for investigators:

1. Tell the suspect he/she cannot win their case.
2. Only produce enough evidence to the suspect to make him/her think you know more than they do.
3. Tell each suspect (if there are more than one) that the other has confessed.
4. State to each suspect the other has blamed him/her for everything.
5. Point out advantages to confessing and the disadvantages of not confessing (OPOTC, 2011).

This language contradicts legal language in other sections of the curriculum that emphasize the necessity of making certain that confessions are voluntary and trustworthy and not obtained through psychological coercion.

One possible explanation for this contradiction is the ambiguity surrounding what tactics or words constitute actual psychological coercion. Although lying to a suspect about what evidence has been obtained may be legal, it brings into question the point at which lying becomes psychological coercion. Depending on the stressors that have been imposed on a suspect, such as the amount of time a suspect is without food or sleep, interrogation conditions, and the statements that the interrogator may make to the suspect, it is possible that lying to a suspect about the available evidence against him or her could be the point at which a suspect breaks and confesses to a crime he or she has not committed simply to end the interrogation, reduce risk of additional charges, or lessen

further perceived punishment. Depending on the physical and mental condition of the suspect, along with the interrogation methods utilized, it is possible that a suspect may believe that his or her only recourse is to tell interrogators what they want to hear—i.e., a confession. Once a confession has been obtained (whether by ethical/unethical or legal/illegal means), it becomes difficult to recant and often serves as a catalyst for wrongful conviction.

In addition to contradictions in the OPOTC curriculum related to eyewitness testimony, also omitted from the OPOTC curriculum is language directed at instructing police recruits about the adverse effects of psychological coercion, which also can lead to false confessions. There is no language in the curriculum that mentions false confessions as a leading cause of wrongful convictions. Leo and Davis (2010) suggested that police training has failed to properly teach officers about the adverse effects that coercive interrogation may have on suspects. Leo and Davis (2010) also observed that “many American police not only fail to understand the causes and effects of police-induced false confessions, but they also possess incorrect and misleading beliefs based on their training” (p. 43). According to Gould et al. (2010), the National Innocence Project has estimated that two-thirds of DNA exonerations in homicide cases involve false confessions. Leo and Davis (2010) determined that confessions are universally viewed as persuasive evidence of guilt and that if a false confession is introduced at trial, it will likely lead to a wrongful conviction.

One possible reason for this omission in the curriculum is the result of pressure to solve crimes that are often placed upon police officers. For example, police officers are often under pressure to solve certain violent crimes as expeditiously as possible. The

public can, and often will, forgive the police for not solving property crimes, such as thefts and burglaries, but the public prioritizes violent crimes, such as homicides and rapes, demanding that they be solved quickly. These demands are often magnified by pressure from the media on police administrators. Naturally, these administrators then apply this pressure to investigators to solve these cases. When investigators experience extreme pressure to solve violent crimes quickly, it becomes easy to move toward case closure with a confession from a suspect, even if that confession was obtained under questionable circumstances.

To summarize findings after comparing the OPOTA curriculum with empirical research that addresses eyewitness identification and confession evidence, first it can be recommended that the curriculum should be revised to add instructional material that familiarizes cadets with the issue and frequency of wrongful conviction in addition to its primary causes. Secondly, the curriculum should be revised to add instruction relative to faulty eyewitness identifications. This revised instruction should not only specifically address procedures and protocols directed at field identifications, but it also should address the procedural topics of accuracy and fairness in the general usage of eyewitness evidence. Third, the curriculum should be revised to address the topic of false confessions and their impact on wrongful conviction. Fourth, the curriculum should be revised to align the legal section of the curriculum with the procedural section that relates to obtaining confessions. Specific attention should be directed at defining more specifically what legally constitutes psychological coercion. Fifth, the curriculum should be revised to include instruction that aligns with empirical research on how certain interrogation tactics lead to false confessions.

Research Question 2

RQ2: What perceptions do Ohio police officers have regarding obtaining eyewitness identification and confession evidence?

To answer RQ2, an 18-item questionnaire was administered to experienced investigators in three large, urban police departments in Ohio. The purpose of the questionnaire was to obtain investigators' perceptions about eyewitness identification and confession evidence. After collecting data using the questionnaire, the researcher conducted a series of one-way ANOVAs to compare levels within four factors to determine whether statistically significant differences existed among these levels. The following factors and levels were compared: Gender (two levels), ethnicity (four levels), age range, (four levels) and education of participants (four levels).

Gender. The results of the study indicated that significant differences exist between the perceptions of male and female investigators. First, female investigators indicated that they believe more strongly than do male investigators that a confession is not necessarily an indicator of guilt and that it does not necessarily mean the case is solved. Secondly, female investigators indicated that they believe more strongly than do male investigators that innocent people may confess to crimes that they, in fact, have not committed. Third, female investigators are more likely than male investigators to recognize that ethnicity can affect eyewitness testimony.

These results suggest that female investigators may apply more intuition, open-mindedness, and skepticism during investigations than do male investigators. Male investigators, however, indicated that they believe more strongly than do female investigators that it is possible for eyewitnesses to identify an innocent suspect. Male

investigators also indicated that they believe more strongly than do female investigators that their field experience has influenced their views about confession evidence more so than the training they received in the police academy. These results indicate that male investigators perceive stronger differences than females between their instruction at the academy and their personal field experience.

Age. After comparing participants' responses on each item of the questionnaire based on four levels of age range (21-30, 31-40, 41-50, and 51-60), the researcher determined that participants within the oldest age range (51-60) have the highest degree of uncertainty that a case will soon be closed even though a witness has identified a suspect. Participants within this age range also indicated that they believe their academy training is inconsistent with their experience in the field. The group of investigators in the second oldest age range (41-50) indicated that they believe more strongly than participants in other age ranges that ethnicity affects the accuracy of eyewitness identification. Additionally, participants in this age range also indicated that they believe more strongly than participants in other age ranges that a confession to a crime does not necessarily mean guilt. In short, these results indicate that older officers (i.e., those who likely have more on-the-job experience) are more aware than participants in other age ranges of flaws in the eyewitness identification as well as problems associated with confessions. The results also suggest that officers graduating from the police academy may not be entering the field with the knowledge necessary to avoid problems and overcome flaws with eyewitness identification and confessions from suspects.

Education. Four levels of education were compared (high school, associate's degree, bachelor's degree, and graduate degree). The results indicated that investigators

with bachelor's degrees have less confidence in eyewitness identification accuracy than do investigators at other educational levels. Results also suggest that investigators with associate's degrees believe more strongly than do investigators at other education levels that they have not contributed to a wrongful conviction.

These results indicate that investigators with bachelor's degrees may have a heightened awareness of the vulnerability issues connected with eyewitness identification. This aligns with the purpose of higher education, which is to prepare students to think through situations, carefully weighing factors that are present in various scenarios.

Investigators with associate's degrees reported that they believe more strongly that they have not contributed to a wrongful conviction than do investigators at other educational levels. These results may indicate that community colleges offering associate's degrees are in need of updating their curriculum so that they remain aligned with the latest empirical research on wrongful conviction. Although the results of this study do not make clear the specific disciplines in which these investigators majored, it seems reasonable to expect that degrees should be aligned with the career field that the student enters. If this is the case with the participants of this study, then this suggests that community colleges should consider providing curriculum that adheres to the current empirical research that has been conducted on wrongful convictions. Community colleges offering degrees to students majoring in criminal justice should educate their students about the frequency of wrongful convictions as well as their causes. The lack of this knowledge learned at the community college level, as well as a lack of wrongful conviction training being offered in the OPOTC curriculum, may be contributing factors that account for the attitude associated with this educational level.

Ethnicity. No statistically significant differences were found between the ethnicity levels.

Recommendations

To minimize the frequency of wrongful convictions, four recommendations can be provided based on the analysis of the results for RQ2. First, the utilization of female investigators is recommended for interrogation when possible, especially for cases in which evidence is weak, since female investigators may not be as likely as male investigators to close a case quickly based on a confession.

Secondly, male investigators should be utilized as often as possible when obtaining eyewitness evidence. Based on the results of this study, male investigators seem to recognize more readily than do female investigators that eyewitnesses do mistakenly point out innocent people as suspects. It is understood that assigning gender-specific investigators may not always be practical. However, when possible, utilizing females and males in the most efficient manner can potentially reduce error possibilities in eyewitness and confession evidence.

Third, movement toward employing police personnel with bachelor's degrees should be considered since they show more awareness of issues connected with eyewitness identification.

Fourth, utilizing older, more experienced investigators is preferred when obtaining eyewitness or confession evidence, since this group has a heightened awareness of eyewitness and confession flaws.

Research Question 3

RQ3: What human performance technology intervention(s) could be implemented for Ohio law enforcement regarding eyewitness identification and interrogation methods to reduce wrongful conviction rates?

Justice is an overall goal of the criminal justice system, which is comprised of police, courts, and corrections. Ideally, at the center of each of these components is a commitment to truth and justice. The need to convict the guilty and exonerate the innocent is an important aspect of the criminal justice system. Reducing the rates of wrongful conviction, therefore, is strategically aligned with the goals and mission of the criminal justice system.

This research question required an applied response. Human performance technology (HPT) is discussed in this section as a potential means of reducing the rates of wrongful conviction in Ohio. In this section, HPT is applied specifically to the results of RQ1 and RQ2.

According to Pershing (2006), “Human performance technology (HPT) is the study and ethical practice of improving productivity in organizations by designing and developing effective interventions that are results-oriented, comprehensive, and systemic” (p. 6). Pershing (2006) also described HPT as the systematic and systemic removal of barriers in performance. Since the process leading to wrongful convictions usually begins with the initial investigation conducted by law enforcement, it is reasonable to focus on performance improvement at the law enforcement level. Based on the results of the first two research questions in this study, the discussion of RQ3 concentrates on the use of

HPT to improve the performance of individuals involved in obtaining eyewitness and confession evidence in criminal investigations.

Although there are times when the appropriate intervention to improve performance is some form of instruction, HPT interventions typically are multi-faceted and may include tactics and procedures, policies, communications networks, and instruction. The range of HPT interventions can be very broad. According to Pershing (2006), “Interventions are designed and developed to respond to specific needs, which are gaps between where an organization is and where it seeks to be in the future” (p. 13).

Empirical research and the OPOTC curriculum. Results from this study indicate that there is some degree of disconnect between empirical research and the OPOTC curriculum. A goal of the OPOTC curriculum is to instruct cadets in becoming police officers as they assume an integral role within the criminal justice system. The OPOTC curriculum introduces cadets to the criminal justice system, often for the first time. For that reason, an updated instructional design should be incorporated into the OPOTC curriculum. Morrison, Ross, and Kemp (2007) indicated that the instructional design process is used for improving skills and reducing knowledge deficiencies. An updated OPOTC curriculum should include information relating to the social issue of wrongful convictions in general. This instruction could provide information relating to wrongful conviction rates, DNA usage, exonerations, and causes of wrongful conviction. Currently, no OPOTC curriculum information exists that addresses the problems that contribute to and perpetuate wrongful conviction. A redesigned OPOTC curriculum should introduce cadets to general information about wrongful convictions and the

frequency with which they occur. Change cannot be expected to occur without knowledge.

A redesigned OPOTC curriculum should include specific information about the two most common errors that lead to a wrongful conviction: faulty eyewitness identification and false confessions. Information in a redesigned OPOTC curriculum should focus not only on the fact that errors involving eyewitness identification and confession evidence can lead to wrongful convictions but also on police practices that sometimes facilitate these errors. Blocks of OPOTC instruction should be redesigned to inform cadets that when obtaining eyewitness identification and confession evidence, only the most ethical and fair methods should be used in order to minimize the possibility of error. This redesigned instruction should be articulated and demonstrated by OPOTC instructors. A redesigned OPOTC curriculum should further include revision of sections where currently there are contradictions between the legal guidelines and practical strategies for conducting interrogations. The revision of the curriculum should be an ongoing process that aligns with and responds to current research findings. This revision process should not be considered a one-time or an occasional event. Appropriate subject matter experts should contribute to the redesign of the curriculum.

The current curriculum indicates that the instructional delivery methods pertaining to interviews, interrogation, and lineups are primarily lecture and group discussion (OPOTC, 2011). A revised curriculum should also address varied delivery methods of instruction within these sections. From an HPT perspective, the delivery of instruction is important for learner comprehension. Police cadets should be given the

opportunity to practice skills they are expected to attain. Actively involving the cadets during the instructional training helps learners retain the instructional material.

According to Morrison, Ross, and Kemp (2007), an essential part of the instructional design process is evaluation. Developing testing instruments to measure the learner's acquired knowledge, skill performance, and changes of attitude should be included in the evaluation process. The evaluation process of instructional design consists of three distinct components, or phases: formative evaluation, summative evaluation, and confirmative evaluation. These evaluation phases address learner skills, knowledge in the instructional setting, and the transfer of the learner's knowledge and skills in the completion of field duties. For example, "Formative evaluation asks, 'How are we doing?' Summative evaluation asks, 'How did we do?' Confirmative evaluation asks, 'How are we still doing?'" (Morrison, Ross, & Kemp, 2007, p. 242). Regarding the reduction of wrongful conviction rates, confirmative evaluation is essential to ensure that knowledge and skills learned in the police academy are being transferred to the workplace effectively over an extended period of time. If the results of confirmative evaluation fall below an established threshold, further instructional redesign may be warranted.

The results of this study indicate that the current OPOTC curriculum lacks information pertaining to the causes of wrongful conviction. However, redesigned OPOTC instructional and evaluation procedures alone are not sufficient to facilitate positive change in rates of wrongful conviction. According to Morrison, Ross, and Kemp (2007), instruction is not a panacea: "Instructional design starts by first identifying the performance problems and never assumes that instruction is the answer to all problems" (p. 6.) HPT practices, however, extend beyond instruction in order to make the most

efficient use of human resources within organizations. Errors that lead to wrongful conviction reflect systemic problems, and these problems cannot be completely solved by redesigning instruction at the beginning of a police officer's career.

From instruction to practice. Redesigning the OPOTC curriculum may potentially elicit awareness of procedural methods necessary to guard against faulty eyewitness identification and false confessions; however, the knowledge learned must be transferred, reinforced, and practiced in the workplace. Assuming the OPOTC curriculum has been redesigned, graduating officers will continue to enter police organizations in which many existing officers do not have the same knowledge base concerning faulty eyewitness identifications and false confession. Established investigators may be unaware that they are obtaining eyewitness and confession evidence in a potentially erroneous manner. The police culture may not support the information and practices that officers have learned at the academy under a redesigned curriculum. This vocational culture shock has the potential to lessen the impact of efficient instruction unless it is addressed.

“Making the transition from training to performance may seem obvious, but it is not necessarily easy to accomplish” (Pershing, 2006, p. 899). Pershing (2006) also has suggested that HPT not only concerns itself with how work performance can be improved but also addresses the culture that exists where the work is performed. To cultivate an environment of awareness within a police agency regarding wrongful conviction errors and to improve (i.e., reduce) rates of wrongful conviction, it is imperative that organizational management implement HPT practices and strategies (Pershing, 2006). Management first must be made aware of the causes and effects of wrongful conviction as well as the rates at which these errors lead to wrongful convictions. Training for police

administrators directed at changing attitudes and gaining their support for change is essential for improving departmental culture.

Imperative to successfully reducing the rates of wrongful conviction in Ohio is management's ownership and acknowledgement of the fact that they play a pivotal role in the establishment of their department's culture. Administrators must be aware of how improved performance will positively influence not only their department but also society in general. The performance of administrators, as well as officers who report to them, is critical and must be viewed systemically. Departmental administrators are catalysts in this transition. Training in this regard can often be accomplished at conferences held for police chiefs or sheriffs in Ohio or through other in-service training opportunities. Support from management is imperative for organizational change to take place. Without this support, no long-lasting cultural change can be expected in a police organization.

The transfer of knowledge and the appropriate attitude about the injustice of wrongful convictions should pervade the organizational structure and include all administrators and supervisors. Awareness of the wrongful conviction problem and errors that lead to it must be addressed and emphasized among all stakeholders in police organizations throughout Ohio. Organizational and cultural change will take place only if and when all personnel charged with the authority of supervising others act in alignment with current research on reducing errors that lead to wrongful convictions. Before subordinate investigators can be expected to increase their knowledge of wrongful convictions, adopt an appropriate attitude about this pervasive problem, and adjust the procedures and tactics they use to obtain eyewitness and confession evidence, they must

be able to draw support from their supervisors. Change must occur from top management and work its way downward.

In-service training about wrongful conviction should be mandated by OPOTC and implemented during a specified period of time for all police personnel charged with investigative responsibility. Positive reinforcement from supervisors and administrators is essential if subordinates are to accept and embrace new training. Since training does not necessarily lead to learning without the learner having a positive attitude, supervisors must demonstrate their enthusiasm about decreasing wrongful conviction rates to all personnel under their authority. Training and reinforcement are key ingredients in making investigative changes at the law enforcement level.

Once all appropriate departmental personnel have been properly trained about wrongful convictions and their causes, continued positive reinforcement for investigators conducting eyewitness identifications and interrogations should be provided. Without positive reinforcement, knowledge gained from training may be lost. To prevent this loss from occurring, the department should make some cultural changes as well. First, the pressure placed upon investigators to solve heinous crimes under a strict time restraint must be eliminated. The public's demand for cases to be solved quickly is often compounded by the media, which creates political pressure for departmental administrators. This pressure is then transferred to investigators working the cases, creating an environment in which mistakes can occur in an effort to resolve cases quickly. In order to reduce mistakes that lead to wrongful convictions, it is imperative that investigators be allowed to work cases methodically, without undue pressure placed upon them by department administrators. Reducing pressure to solve a case quickly and

focusing more on accuracy can enhance investigators' ability to collect and evaluate additional confirming evidence when obtaining eyewitness identification or a confession. Important in successfully reducing wrongful conviction rates is management's acknowledgement that haste can lead to increased mistakes.

Secondly, positive reinforcement programs should be implemented in the form of a reward system when investigators accurately determine that an eyewitness identification is inaccurate or that a confession has been falsely given. This reinforcement could come in the form of financial reward, vacation days, public acknowledgement, partial criteria for promotion, or a combination of all four each time an investigator discovers a mistake that could have resulted in a wrongful conviction.

Third, investigators, supervisors, and administrators should be reminded often about the rates and causes of wrongful conviction. Reminders can include supervisors passing along current wrongful conviction case studies, mentioning causes of wrongful conviction during roll call, placing posters and brochures in appropriate locations where they will be viewed by investigators, and offering continual in-service training. Through existing technology, reminders, case studies illustrating exoneration, and updated research concerning wrongful convictions can be electronically transferred to department vehicles as well as office computers. This visual information can serve as reinforcement for behaviors that promote careful investigation.

Systems theory illustrates that all subsystems within any organization are interrelated. Therefore, making changes in one subsystem necessarily influences other subsystems. Redesigned training at the police academy may alone not accomplish the goal of sufficiently reducing the number of wrongful convictions in Ohio. All current law

enforcement personnel, from administrators to patrol officers, should be informed and educated about wrongful convictions and their causes. This training should be aligned with positive reinforcement techniques and should be presented in each Ohio law enforcement agency.

As law enforcement administrators consider HPT for the purpose of reducing wrongful conviction rates, planning and vision should reflect society's priorities and values. Focusing on reducing the rates of wrongful conviction in Ohio, and thereby facilitating positive societal change, is not only an ethical thing to do, but also will be of value to a number of stakeholders. Stakeholders who are paramount in wrongful convictions include the constituents within the criminal justice system, innocent people accused of crimes, taxpayers, victims of crimes, and the public in general, especially when the real perpetrator is left uncharged and free to commit additional crimes.

Utilizing HPT to reduce the rates of wrongful conviction aligns with critical theory in that it serves to bring about social and cultural change. Critical theory encourages people to interact, form networks, and become activists. It helps people to examine the conditions of their environment and envision new possibilities (Creswell, 2007). Understanding oppression as it pertains to individuals who have been wrongfully convicted is an initial step in reducing the causes of wrongful conviction. Most police officers enter the field with a desire to help those who have been victimized. Police will readily embrace the notion that the wrongfully convicted are indeed victims once they become aware of the issue and its causes. Utilizing instruction, and a broad range of other appropriate HPT interventions, coupled with cultural organizational change and positive

reinforcement, HPT can become a catalyst for reducing rates of wrongful conviction, thus bringing about societal transformation.

Recommendations For Practice

The results of this study lead to several recommendations for reducing wrongful conviction rates in Ohio:

- Redesign instruction in the OPOTC curriculum to familiarize cadets with the broad social problem of wrongful convictions. This redesigned instruction should emphasize the primary causes of wrongful conviction as well as investigative practices that would reduce errors in early investigative stages.
- The OPOTC curriculum should be delivered in a manner that provides sufficient opportunity for cadets to practice the skills they are expected to perform.
- Expand the use of female investigators during the interrogation process and male investigators in obtaining eyewitness identification evidence.
- Use experienced investigators holding bachelor's degrees more often when obtaining eyewitness and confession evidence.
- Utilize human performance technology interventions to potentially bring about positive change within Ohio police departments for the purpose of reducing investigative errors and thus reduce wrongful conviction rates. These interventions should involve techniques to improve training; increase personnel awareness; increase employee motivation; provide positive reinforcement; and change attitudes among police administrators,

supervisors, and investigators. Specific subject matter experts should be utilized to facilitate this change.

- Training, human resource allocation, and performance improvement techniques designed to reduce wrongful conviction should be shared nationally using networking vehicles such as conferences, law enforcement publications, and national databases.

Recommendations For Future Research

This study concentrated on errors that lead to wrongful convictions at the law enforcement level of the criminal justice system. Suggestions for future research include the following:

- A study of errors that take place at the judicial level. This research should examine the knowledge that judges and attorneys possess regarding the subject of wrongful conviction and its causes. It also should examine the practice of allowing eyewitness and confession evidence into the court record.
- Examine the instructions juries receive as well as the knowledge that they possess regarding wrongful convictions. A study should take place regarding the jury's scrutiny of eyewitness and confession evidence as they deliberate cases.
- A future study should explore basic police training curriculums and perceptions of investigators in other states.

- A study of OPOTC and other states' instructional delivery methods should be conducted to determine whether cadets are actively involved in the training process or passive participants.
- Examination of broader, non-instructional interventions from an HPT perspective that addresses selection criteria for cadets and trainers as well as issues related to needed resources, such as time allotment, money, and staffing.
- Future studies should examine industries, such as the airline industry and the medical profession, to better understand their procedures for investigating and reducing errors and apply those procedures to the criminal justice system.
- An examination of countries that currently have innocence commissions for the purpose of thoroughly investigating wrongful convictions, then making recommendations to reduce future mistakes, should be considered. The study should focus on the efficiency of these commissions in their ability to help reduce wrongful convictions.
- Replicate this study utilizing rural departments, or a combination of rural and urban departments, in order to increase the sample size, thus determining whether results are similar in various populations and with an increased sample size.

Limitations

This study was limited in several important ways. First, the results of the OPOTC curriculum analysis cannot be generalized to the basic training curriculums of other states

because curriculum varies from state to state. Secondly, concerns about anonymity and confidentiality may have inhibited the respondent investigators from answering the questionnaire items with complete honesty, as is common whenever questionnaires are used. Third, results of this study cannot be generalized to other components of the criminal justice system besides law enforcement.

Conclusions

Wrongful conviction within the criminal justice system is a problematic societal issue that warrants attention. This study provides a greater understanding of issues that lead to wrongful conviction at the law enforcement level within the state of Ohio. The Attorney General's Office, which oversees the OPOTC curriculum, should consider redesigning the current OPOTC training materials to increase the knowledge of cadets entering the field of law enforcement about wrongful conviction and improve their investigative skills. Mistakes leading to a wrongful conviction most often occur at the law enforcement level. Continued interventions directed at limiting investigative mistakes must take place within individual law enforcement agencies. HPT can provide an appropriate and varied spectrum of tools to improve performance in those agencies.

With a possibility of 60,000 or more people currently serving prison sentences for crimes they did not commit, the time has come to make drastic changes in the criminal justice system. Individuals at administrative, judicial, and legislative levels must begin to take major steps directed at reducing the rate of wrongful convictions. Convicting an innocent person is never purposeful. However, once an innocent person has become a criminal defendant, it can be difficult to reverse that status. Therefore, an immediate focus must be placed on prevention of errors at the law enforcement level.

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Appendix A

Required Training

The researcher has successfully completed the Human Subjects Research Training & Education course required by The University of Toledo. The researcher has in his possession a certificate of completion from The National Institutes of Health (NIH) Office of Extramural Research. The NIH Web-based training entitled “Protecting Human Research Participants” was completed on 5/20/09, certificate number: 233027.

The researcher has successfully completed the Social & Behavioral Researchers & Students Curriculum required by The University of Toledo. The researcher has in his possession a certificate of completion from CITI Collaborative Institutional Training Initiative. This basic course was completed on 7/27/12, reference number: 8357710.

Appendix B

Letter to Police Chiefs

Dear Chief _____:

I am a doctoral candidate at The University of Toledo in Toledo, Ohio. After spending 25 years as a deputy sheriff in Ohio, I currently am a professor teaching criminal justice classes in the School of Public Safety and Emergency Preparedness at Owens State Community College, also in Toledo. The purpose of this letter is (1) to introduce you to the research I am currently conducting as partial requirements for the degree of Ph.D. and (2) to ask for your assistance and permission to conduct this study using participants from within your department. Although you have already indicated your willingness to participate in prior email correspondence, the Institutional Review Board (IRB) requires a more formal approval from you. The topic of the proposed research is Eyewitness Testimony, False Confession, and Human Performance Technology: An Examination of Wrongful Convictions: It is designed to improve the efficiency and performance of criminal justice professionals in Ohio.

During the past two decades, the issue of wrongful criminal convictions has received considerable attention. This attention is mostly due to the advancement of DNA technology, which has been a catalyst for the exoneration of hundreds of convicted individuals in the United States. It is well established that two major causes of wrongful conviction are faulty eyewitness identifications and false confessions. It is my intention through this research to gain a clearer understanding of the values, beliefs, and behaviors of criminal investigators that could contribute to wrongful convictions, then suggest

human performance technology interventions to help reduce the incidence of wrongful convictions.

Four large police departments in Ohio have been designated for this research. One of those departments falls under your leadership. With your permission, I would like to survey experienced felony investigators within your department. If you agree to allow your investigators to participate in this study, I would ask that you, or your designee, complete and sign the attached research participation form and return that document to me at your earliest convenience. I have included a self-addressed, stamped envelope for your convenience. At a later time, I will be asking you to prepare a list of experienced investigators meeting specific experience criteria. Those criteria would include investigators that have at least five years of felony investigation experience, and with at least twenty-five felony investigations in which he/she was the primary investigator in the case. I would then ask that I be provided the names and their professional contact information, including email addresses, of this pool. This information that I will need for the study can be most easily be accomplished by email. The entire pool of possible participants will be invited to complete an online survey that should take no longer than thirty minutes. They will be sent an informed consent document and given adequate time to ask any questions they might have prior to deciding whether to participate in the survey. Each participant will be mailed or emailed information to explain the survey procedures. The participants involved in this study will remain confidential and the survey answers are anonymous. Further, their participation will be completely voluntary. I would ask that you, as chief, or your designee, provide each possible participant in the participant pool a letter on department stationery that indicates your approval of this

research and that there is protection of anonymity and confidentiality for everyone involved. There will be no record of who does or does not respond to the survey, and the completed survey will not designate who the responding participant was. Please encourage the participant pool to be involved with this important research by completing the online survey. This research is important to the credibility of the law enforcement profession as we strive to reduce the number of wrongful convictions. After your formal approval of departmental participation in this research, and all approvals are gained from the university's IRB, I will contact you again, asking for contact information of all participants meeting the experience criteria of this study. Also, I will send you a sample letter that you can use or modify to send to the participant pool that acknowledges your approval of this study, and encourages their participation.

I am hopeful you will partner with me in this endeavor. Should you have any concerns or questions, please do not hesitate to contact me. Thank you very much for your time and your consideration in this relevant research.

Sincerely,

Terry L. Johnson
Terry.Johnson2@rockets.utoledo.edu
(419) 388-3800

Appendix C

Research Participation Approval

The _____ Police Department will participate in the doctoral research being conducted by Terry L. Johnson of The University of Toledo for the purposes of reducing wrongful conviction incidents within the State of Ohio.

Signature of Chief or designee _____

Printed Name _____

Title _____

Your Contact Information including email address and phone number:

(I will use the above named individual for future contact relating to this research)

Please return this completed form to:

**Terry L. Johnson
1038 Seneca Drive
Wauseon, Ohio 43567
(419) 388-3800**

Appendix D

Letter to Participant Pool

Dear Detective,

My name is Terry Johnson. I am a retired law enforcement officer in Ohio, and currently teach criminal justice courses at a community college in Toledo. I am also a doctoral student at The University of Toledo. I am conducting research as part of my degree requirements that is titled *Eyewitness Testimony, False Confession, and Human Performance Technology: An Examination of Wrongful Convictions*. I believe you will agree that mistakenly convicting even one innocent person is a tragedy. Yet, many innocent people have been exonerated over the past two decades in the United States, due to DNA advancements identifying the real perpetrator.

The study will involve receiving information on the perceptions, beliefs, and values of experienced investigators with regard to obtaining eyewitness identification evidence, and also obtaining interrogated confessions. The study will also analyze the Ohio Peace Officer Training Curriculum, to ascertain whether the current curriculum coincides with the latest scholarly research pertaining to eyewitness identification and confession evidence. Last, Human Performance Improvement interventions will be suggested in an attempt to reduce the wrongful conviction rates in Ohio.

I would like to invite you to partner with me in this important study. Your participation is vital to helping reduce the rates of wrongful convictions. You have been selected to participate because of your experience as a professional investigator. The experience criteria for this study is that you have at least 5 years experience in investigations, and at least 25 felony investigations of which you were the primary investigator. Four urban police departments in Ohio have agreed to participate in this study. Your department has graciously agreed to participate and has determined investigators that meet the experience criteria of this study.

Your participation is voluntary and involves the taking of a survey. Although your department does know the officers who meet the experience criteria and have received this letter, no one will know who does, or does not, participate. Participation in this study is anonymous and confidential. Further, all results will be analyzed in aggregate, utilizing all four departments. No specific department or individual will be specified. I encourage you to participate in this important study, that has the potential of reducing wrongful convictions in Ohio. Participation should take no longer than 15 minutes of your time, and involves taking a survey that is posted online at the following link:

<http://www.surveymonkey.com/s/2C9VW53>

When accessing the survey, you will first read an informed consent page, which must be agreed to, and then you will be allowed access to the actual survey. I thank you in

advance for your anticipated participation. If you have any questions at all, please do not hesitate to contact me.

Terry Johnson
419-388-3800

Dr. Berhane Teclehaimanot
419-530-7979

Appendix E

Informed Consent Form

ADULT RESEARCH SUBJECT - INFORMED CONSENT FORM *Eyewitness Testimony, False Confession, and Human Performance Technology: An Examination of Wrongful Convictions*

Principal Investigator: Dr. Berhane Teclehaimanot, Associate Professor, (419) 530-7979

Terry L. Johnson, Doctoral Student, (419) 388-3800

Purpose: You are invited to participate in the research project entitled, *Eyewitness Testimony, False Confession, and Human Performance Technology: An Examination of Wrongful Convictions*, which is being conducted at the University of Toledo under the direction of Berhane Teclehaimanot, Ph.D. and Terry L. Johnson, M. Ed. The purpose of this study is to reduce the rates of wrongful criminal convictions in the State of Ohio. The research will include surveys to include perceptions and procedures experienced police investigators have and use in developing eyewitness and confession evidence in criminal cases. The researcher will analyze the surveys, as well as the OPOTA curriculum, and suggest human performance improvement interventions as a means to lower the rates of wrongful convictions.

Description of Procedures: This research study will take place in four large urban police departments within the State of Ohio. The researcher will be using a survey instrument that will be administered through the Internet. The survey should take participants no longer than 15-20 minutes to complete. The surveys will be voluntary and anonymous, with answers not being identified with individual participants or departments.

Permission to record: Will you permit the researcher to audio record during this research procedure?

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>	_____
	Here		Initial Here	Initial

After you have completed your participation, the research team will debrief you about the data, theory and research area under study and answer any questions you may have about the research.

Potential Risks: There are minimal risks to participation in this study. Answers to the survey may make you feel upset or anxious. If that happens, you may stop participating at any time.

Potential Benefits: A direct benefit to you, if you participate in this research, may be that you will learn about how quantitative surveys are conducted and may learn more

about the causes of wrongful convictions and how they can be reduced. Others may benefit by learning about the results of this research.

Confidentiality: No one within your department will know who is participating and who is not. Nor will departments be identified with the results. Results will be reported in aggregates. The consent forms with signatures will be kept separate from responses, which will not include names and which will be presented to others only when combined with other responses. Although every effort will be made to protect your confidentiality, there is a low risk that this might be breached.

Voluntary Participation: Your refusal to participate in this study will involve no penalty or loss of benefits to which you are otherwise entitled and will not affect your relationship with the Police Department in which you serve. In addition, you may discontinue participation at any time without any penalty or loss of benefits.

Contact Information: Before you decide to accept this invitation to take part in this study, you may ask any questions that you might have. If you have any questions at any time before, during or after your participation you should contact a member of the research team: Dr. Berhane Teclehaimanot, (419) 530-7979 or Terry L. Johnson (419) 388-3800.

If you have questions beyond those answered by the research team or your rights as a research subject or research-related injuries, the Chairperson of the SBE Institutional Review Board may be contacted through the Office of Research on the main campus at (419) 530-2844.

Before you sign this form, please ask any questions about any aspects of this study that are unclear to you. You may take as much time as necessary to think it over.

SIGNATURE SECTION – Please read carefully

You are making a decision whether or not to participate in this research study. Your signature indicates that you have read the information provided above, you have had all your questions answered, and you have decided to take part in this research.

The date you sign this document to enroll in this study, that is, today's date must fall between the dates indicated at the bottom of the page.

Name of Subject (please print)	Signature	Date
Name of Person Obtaining Consent	Signature	Date

Appendix F

Survey Instrument

Please complete the biographical data below, then proceed to the survey, indicating your thoughts to the statements from 1 (strongly agree) to 5 (strongly disagree).

Sex? Male _____ Female _____

Ethnicity? _____

Age? 21 - 30 _____ 31 - 40 _____ 41 - 50 _____ 51 - 60 _____ 61 + _____

Highest education level: High School _____ Associate's Degree _____

Bachelor's Degree _____ Graduate Degree _____

SURVEY QUESTIONS

When investigating a felony case, I rely on eyewitness identifications from **victims**.

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

When investigating a felony case, I rely on eyewitness identifications from **witnesses**.

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

I have confidence in the accuracy of eyewitness identifications when developing a suspect.

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

When a witness identifies a suspect, the case is usually closed soon afterward.

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

The race or ethnicity of a suspect does not affect the accuracy of eyewitness identification.

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

If a suspect confesses during an interrogation, the suspect is usually guilty.

1	2	3	4	5
Strongly	Agree	Neutral	Disagree	Strongly
Agree				Disagree

Innocent people rarely confess to crimes they have not committed?

1	2	3	4	5
Strongly	Agree	Neutral	Disagree	Strongly
Agree				Disagree

I use the same procedures every time I interrogate a suspect.

1	2	3	4	5
Strongly	Agree	Neutral	Disagree	Strongly
Agree				Disagree

When a confession to a crime is obtained, I feel the case is pretty well wrapped up.

1	2	3	4	5
Strongly	Agree	Neutral	Disagree	Strongly
Agree				Disagree

Sometimes lying or using trickery in the pursuit of justice, and as sanctioned by the courts, is okay when obtaining a confession.

1	2	3	4	5
Strongly	Agree	Neutral	Disagree	Strongly
Agree				Disagree

My training in the police academy about eyewitness identification evidence is consistent with my experiences in the field.

1	2	3	4	5
Strongly	Agree	Neutral	Disagree	Strongly
Agree				Disagree

My training in the police academy about confession evidence is consistent with my experiences in the field?

1	2	3	4	5
Strongly	Agree	Neutral	Disagree	Strongly
Agree				Disagree

I can recall at least one time when I knew an eyewitness was wrong in pointing out a suspect.

1	2	3	4	5
Strongly	Agree	Neutral	Disagree	Strongly
Agree				Disagree

I can recall at least one time when someone I interrogated confessed, and later I discovered he or she in fact did not commit the crime he or she had been accused of.

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

At some point in my career, I believe I may have unknowingly been involved in a wrongful conviction.

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Compared to what I was taught in the police academy, my field experiences as an investigator have changed my views about eyewitness testimony.

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Compared to what I was taught in the police academy, my field experiences as an investigator have changed my views about confession evidence.

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

It is possible that I may have contributed to a wrongful conviction.

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Appendix G

Data Collection Letter

Researcher's Notation: This below copied letter was emailed to contacts in four urban cities in Ohio on November 15, 2012. Attached was the Participant Pool Invitation Letter, which contained the online survey link.

On November 19, 2012, I followed up with all contacts by phone, asking them to confirm receipt of the emailed letter and attachment, and also asking whether they had questions or concerns that I could assist with. I left a voice mail message on all but one contact whom I spoke with in person.

On November 26, 2012, I again wrote emails to two contacts due to not receiving confirmation of their receipt of the email and participation letter. I had previously received email receipt confirmation from one other.

As of November 28, 2012, I have heard receipt confirmation from all contacts participating in the study with one exception.

On November 29, 2012, I received email confirmation from the last contact indicating that he had received my invitation and has sent it on to nearly 70 detectives.

It has been a very long time, but my research study has now been fully approved by the University's IRB. I so much appreciate your patience, as I know you agreed to be a part of this study months ago. Much of the study's approval process was out of my hands, but finally, I can say we are now ready to go!

Attached to this email is a participant invitation letter, which must be electronically distributed to each investigator that meets the established experience criteria. That criteria being that the investigator have at least 5 years experience as an investigator and that he/she have at least 25 felony investigations of experience in which he/she was the primary investigator of the case. The attached invitation letter that each potential participant will receive from you, has embedded in the body of the letter, a link to Survey Monkey that when clicked, will take the participant to the survey. The first page of the survey includes the informed consent, which must be agreed to in order to continue. The next page is a short demographic page. That page then is followed by the survey itself. This survey should take no longer than 15 minutes.

I would very much appreciate it if you would encourage the investigator's participation as you electronically disseminate the participation letter from me. This study has the potential of helping to reduce wrongful convictions in the State of Ohio. I would also appreciate it if you could drop me a line indicating how many of your officers received the invitation to take part in this study. No one will know who does, or does not take the survey, and the answers are not connected to any specific individual. Further, all data will

be recorded in aggregates, with four large Ohio departments participating. No department or individual will be singled out in any way.

I thank you in advance for making certain my invitation letter to take part in the study is disseminated to the participant pool with your encouragement. My plan will be to contact you in early December, then again in early January to remind and encourage participation.

I want you to know that when this study is completed, I would be happy to supply you with results if you desire. Please do not hesitate to contact me at any time with any questions or concerns.

I am most appreciative of your assistance and also your patience with this process! If you would confirm receipt of this email and it's attachment that would be great. Thank you!

Terry Johnson
419-388-3800

Appendix H

Follow-Up Data Collection Letter

Researcher's Notation: The below copied letter was emailed to contacts in all participant cities on December 4, 2012.

I hope this email finds everything going well. My purpose for this correspondence to ask you to recontact the pool of participants that meet the experience criteria (5 years in investigations with at least 25 felony investigations), and encourage them to complete the online survey, if they haven't already. I understand how busy everyone is, and I assume the first correspondence may have been forgotten by some. A reminder and encouragement from management can help a great deal.

To date, 27 investigators have responded to the survey in total from all four departments. I have no idea who has or has not responded, nor do I know what departments are represented in those responses. I can only see total numbers. That number does seem low. From a prior email to you and the contacts from the other three departments, I had asked for estimates of investigators that meet the experience criteria. It was indicated there would be about 200 possible participants from all four departments. I was hoping that at least half of that number would respond to the survey to have a more meaningful data analysis.

Between now and Christmas, I would like to have another "push" to encourage investigators to participate in this online survey. For your convenience, I have attached the Participant Letter again. The attached letter has the online survey link embedded in the contents. If you would send a reminder to participate and encourage them about the importance of this study, along with the attached letter, to as many investigators as possible in your department, I would be very grateful.

Thank you very much. As always, please do not hesitate to contact me with any questions or concerns you might have.

Terry Johnson
419-388-3800

Appendix I

Survey Follow Up

Researcher's Notation: The below copied letter was emailed to contacts in all four cities on January 3, 2013.

First, I wish you and members of your department a safe, healthy, and prosperous 2013! I hope you have had a wonderful holiday season! I truly mean that, although I remember well some of my department's toughest calls were during this time of year.

The purpose of this email is to ask for your assistance one more time. As of this morning, 65 people have responded to the survey between all four departments that are participating. I would like to make one more "push" of encouragement to participants meeting the experience criteria (5 years experience as an investigator with 25 felonies of which they were the primary investigator).

This study has the potential of helping to reduce the incidence of wrongful conviction in Ohio, and your investigator's input is extremely valuable. Respondents in this important study will be contributing toward an effort to improve the criminal justice system in Ohio.

Please remind the participant pool that if they haven't already, and wish to participate, to go to the Survey Monkey link and take this very short survey. For convenience, I have attached the Participant Invitation Letter with the survey link embedded in the text. **The survey will be left online until January 15, 2013.**

I will appreciate any encouragement you can give your staff to participate. Thank you so much for all you have already done.

Terry Johnson

Appendix J

Final Follow Up

Researcher's Notation: This last reminder and thank you letter was sent to all contacts on 1/14/13

I would like to thank you, your chief, and your department for participating in this important study, designed to potentially help to reduce the incidents of wrongful convictions in Ohio. I am very appreciative for all you have done to assist me with the identification of experienced investigators and the distribution of this study. I also wish to thank everyone who took the time to complete the online survey. Their input is extremely valuable to the success of this study.

The survey will be taken off line on 1/15/13. If there is anyone meeting the experience criteria who has not taken the survey, but would be willing to, please encourage them to do that today.

Please pass this heartfelt thanks on to your investigators that took the survey and to your chief of police.

If I can be of any assistance to you in the future, please do not hesitate to ask.

Terry Johnson
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