

CAN A VIDEO-BASED EDUCATION PROGRAM HELP YOUTH UNDERSTAND
THEIR MIRANDA RIGHTS? FINDINGS FROM A RANDOMIZED TRIAL

by

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ABSTRACT

CAN A VIDEO-BASED EDUCATION PROGRAM HELP YOUTH UNDERSTAND THEIR MIRANDA RIGHTS? FINDINGS FROM A RANDOMIZED TRIAL

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Over one million juveniles are arrested in the United States each year (including 65,000 who are under the age of 12), and the law in most states allows juveniles to be treated the same as adults during police interrogations (Rogers et al., 2016 citing Federal Bureau of Investigation, 2013). Existing research indicates that *Miranda* warnings are varied and complex, rates of misconceptions are high, and comprehension rates are low, especially for juveniles (Grisso, 1980; Rogers, 2011; Rogers et al 2007). Juveniles are especially vulnerable to police interrogation tactics and may be two to three times more likely to falsely confess to crimes (Crane et al., 2016). To date, little existing research tests solutions to this problem. In the present study, an educational video designed to teach youth their rights is empirically tested using a randomized controlled design. Results indicate that the video helped improve comprehension and decrease the number of serious misconceptions held by youth with respect to both the *Miranda* warnings and the

underlying rights. Additionally, youth in the experimental group had fewer serious misconceptions at a one-month follow-up, although these results were not significant.

Two youth from the experimental group were also arrested and Mirandized by police during the study period and they both exercised their rights and did not give statements to police.

CHAPTER ONE: INTRODUCTION

In 2011, a ten-year-old boy in California shot and killed his abusive, neo-Nazi father while he slept. Before going to sleep that night, the father said he would disable all the smoke detectors and burn the house down while the boy and his family were inside (Phillips, 2016). When police arrived after the shooting, the ten year old asked, “how many lives do people usually get?” and when asked if he understood his right to silence, he said it meant he had the right to stay calm (Phillips, 2016). At the police station the boy waived his *Miranda* rights without the presence of an attorney; he was below average intelligence and suffered from a number of behavioral problems, and had been physically and emotionally abused, as well as subjected to drugs and alcohol in the womb (Phillips, 2016). The child was convicted of murder in 2013. His case was appealed based on an invalid waiver of *Miranda* warnings, but the California Supreme Court upheld his waiver and conviction by way of its denial of certiorari. The U.S. Supreme Court also denied certiorari in October 2016.

Legal Protections for Juveniles

In the United States, a ten-year-old child can be interrogated without an attorney present and legally waive their rights even if they demonstrate a lack of understanding of what those rights mean (*People v. Joseph H.* 237 Cal. App. 4th 517). After *People v. Joseph H.*, the California legislature proposed a statute requiring police to provide attorneys during interrogations of juveniles under the age of 18, but it was vetoed and never signed into law (Senate Bill 1052). In 2017, California passed a law requiring consultation with an attorney for suspects under the age of 15. This case highlights the lack of legal protections for juveniles during interrogations and raises questions about what it means to “knowingly” waive constitutional rights.

Over one million juveniles are arrested in the United States every year, including 65,000 under the age of twelve (Rogers et al., 2016 citing Federal Bureau of Investigation, 2013). In 2011, in California alone, 613 children under the age of 12 were arrested for a felony (Phillips, 2016). Studies show that -- while juvenile arrest rates have gone down recently -- the disparity between arrest rates for Black youth and White youth has increased (Rovner, 2016). This means that many of the impacts and downstream effects discussed in this dissertation may have a disproportionately worse impact on Black youth.

Legal Standard

The legal standard for waiving *Miranda* rights is that the waiver is “knowing, intelligent and voluntary” and this is assessed based on a “totality of the circumstances test,” which involves an “inquiry into all the circumstances surrounding the

interrogation” (including factors like age, mental condition, capacity, and education as well as actions by police officers) (*Fare v. Michael C.* 442 U.S. 707, 725). The legal definitions of voluntary, knowing and intelligent are not the same as psychological definitions and will be discussed in more detail below. Using a legal definition and analysis, the focus is on the behavior of the officer and not on the individual suspect’s knowledge, abilities and intelligence. If the officers did not act illegally and they gave some explanation to the suspect after reciting the *Miranda* warnings, the court often finds the waiver valid (*Fare v. Michael C.*, 1979; *In re Joseph H.*, 2015).

In 1966, the Supreme Court decided *Miranda v. Arizona*. The *Miranda* decision is designed to protect the 5th Amendment right that “no person...shall be compelled in any criminal case to be a witness against himself,” and in order to fully protect an individual’s 5th Amendment rights, the decision also protects the 6th Amendment right to the assistance of counsel (384 U.S. 436, 442). The Court was concerned that the 5th Amendment protection against self-incrimination was being circumvented by police compelling people to give incriminating statements before trial; therefore they included the requirement that suspects be told of their right to counsel before these pre-trial statements. Chief Justice Warren wrote in the decision that in order for a defendant’s custodial statement to be admitted in trial, he must be told prior to his statement that he has the right to remain silent, that anything he says can be used against him, that he has the right to consult with an attorney, and have the attorney present, and that if he cannot afford an attorney one will be appointed (384 U.S. 436).

The Court in this case defines custodial interrogation as law enforcement questioning while a person is deprived of their “freedom of action in any significant way” (384 U.S. 436, 444). Being deprived of freedom of action is not limited to being placed under arrest, courts consider many factors when deciding whether someone was in custody at the time of police questioning. In a 2009 case, the 9th Circuit held that a defendant was not in custody when two detectives approached him at work and directed him to come with them and questioned him for two and a half hours in a conference room (*U.S. v. Bassignani* 575 F.3d 879). The officers told the suspect he was not under arrest, but did not tell him he was free to leave. The court identified five factors to take into consideration when deciding whether a person is in custody: the language used by officers, whether the suspect is confronted with evidence of guilt and to what degree, the physical surroundings and the amount of pressure used to detain the suspect (*U.S. v. Bassignani* quoting *U.S. v. Kim* 292 F.3d at 973). If a suspect who is in custody elects to waive his rights, the court also requires the government to show that the person waived his rights knowingly, intelligently and without coercion (voluntarily) in order for the statements to be admitted in court.

The Supreme Court held in *Moran v. Burbine* that knowing and intelligent means a “full awareness of both the nature of the right being abandoned and the consequences of the decision to abandon it” (1986). The Supreme Court held in *Fare v. Michael C.*, that the standard for determining the voluntariness of a juvenile’s waiver of *Miranda* warnings should be the “totality of the circumstances” (or an examination of all of the circumstances in the case), which should demonstrate “uncoerced choice and the requisite

level of comprehension” (1979). Totality of the circumstances is a legal standard that tells courts to consider many factors when making a decision – from the age and intelligence of the individual to the specific circumstances of the interrogation. In practice, the courts often focus more on the behavior of the interrogating officers instead of an in-depth inquiry into the particular defendant and what they actually understood at the time of the interrogation. If the officers did not act illegally and they gave some explanation to the suspect after reciting the *Miranda* warnings, the court often finds the waiver valid (*Fare v. Michael C.*, 1979; *In re Joseph H.*, 2015). According to the Supreme Court, believing that the right to remain silent equates with a “right to remain calm” satisfies these legal requirements under *Miranda*, because the officer gave a general explanation of the *Miranda* warnings and the child understood right from wrong according to the Court (*Joseph H. v. California*, certiorari denied, 2016).

Legal Theory

The Supreme Court’s intent behind the *Miranda* decision was to ensure that the 5th Amendment rights in the Constitution “had not become but a *form of words*” without any practical effect (*Miranda*, p. 444 citing *Silverthorne Lumber Co. v. United States*, 251 U.S. 385, 392 (1920)). Chief Justice Warren outlined in the decision what was known about police interrogation techniques at the time, concluding “police . . . persuade, trick, or cajole [suspects] out of exercising [their] constitutional rights” (*Miranda*, p. 455). The Court noted that psychological intimidation can be as effective as physical intimidation in the interrogation room and warned: “unless adequate protective devices

are employed to dispel the compulsion inherent in custodial surroundings, no statement obtained from the defendant can truly be the product of his free choice” (*Miranda*, p. 458).

The Supreme Court fashioned the *Miranda* warnings with the theory that they would be “adequate protective devices...to dispel the compulsion inherent in custodial surroundings” (*Miranda*, p. 458). Chief Justice Warren discussed the need for “proper safeguards” to protect suspects from the “compelling pressures” during interrogations (*Miranda*, p. 467). The Court thought compelling pressures were factors like isolation, being unable to leave, not knowing how long the interrogation would last, and not having anyone to consult for legal advice (*Miranda*, pp. 449-452). The decision leaves the possibility open that States or Congress may come up with other “effective ways of protecting the rights of the individual” during interrogation, but concludes that “unless we are shown other procedures which are at least as effective in apprising accused persons of their right of silence...the following safeguards must be observed” (*Miranda*, p. 467). Justice Warren then outlines the basic *Miranda* warnings that must be provided for a statement to be admitted in trial. He states: “for those unaware of the privilege, the warning is needed simply to make them aware of it – the threshold requirement for an intelligent decision as to its exercise” (*Miranda*, p. 468). Furthermore, “a warning at the time of the interrogation is indispensable to overcome its pressures and to insure that the individual knows he is free to exercise the privilege” (*Miranda*, p. 469). The Court believed that reciting *Miranda* warnings would make suspects aware of their rights

(meeting the requirement for an intelligent waiver) and that it would insure suspects know they can exercise their rights (meeting the requirement for a knowing waiver).

The legal theory behind *Miranda* warnings, developed in the *Miranda* decision and subsequent cases, is that reciting *Miranda* warnings is an “adequate protective device,” a “proper safeguard” and is “effective in apprising accused persons of their right[s]” under the 5th Amendment (*Miranda*, p. 458 and 467). Existing social science research challenges this legal theory. The research on comprehension of *Miranda* warnings suggests that recitation of *Miranda* warnings is not an adequate safeguard to protect 5th Amendment rights because suspects do not understand the words recited and therefore cannot intelligently waive or exercise those rights (Grisso, 1980; Rogers, 2011; Feld, 2006).

Even after being told the *Miranda* warnings, many suspects and most juveniles do not understand what the warnings mean; this suggests that a mere recitation of words is not an “adequate protective device” (*Miranda*, p. 458). Chief Justice Warren greatly expanded protections for suspects in this historic decision. However, *Miranda* warnings do not account for the fact that many suspects do not understand what a right is, nor do they understand the role of an attorney, and they do not understand that their right to silence is further protected during court proceedings, such that an invocation of silence cannot be used against them (Rogers, 2011; Rogers et al. 2014). These misunderstandings undermine any protective effect and result in a situation where *Miranda* warnings are not “effective in apprising accused persons of their right[s]” (p. 467).

Existing Research

Regardless of what the legal standard is for waiver of *Miranda* rights, we know from research that most juveniles do not understand these rights. In 1980, Grisso studied juveniles' ability to understand the words and phrases in common *Miranda* warnings and whether they understand the meaning and significance of the warnings. Grisso (1980) found that 44.8% of juveniles and 14.6% of adults did not understand that they could consult with an attorney before the interrogation or have an attorney present during the interrogation and 61.8% of juveniles and 21.7% of adults thought a judge could punish them for invoking their right to silence. Rogers (2011) studied false beliefs about *Miranda* and found that 52% of defendants think they can have off-the-record conversations with police and 25.9% think a statement without a signed waiver cannot be used against them. Rogers (2008) also recognized that juveniles and other defendants do not even realize they do not understand or have false beliefs about *Miranda* warnings.

After waiving *Miranda* rights, the juvenile suspect gives a statement to police and that statement is a very strong piece of evidence used to convict the juvenile. In mock jury experiments, confessions led to the highest rates of conviction and are viewed by judges as juries as the most incriminating type of evidence (Kassin & Neumann, 1997). Even in mock jury experiments where jurors are made aware that the confession was coerced, these same individuals were still more likely to vote guilty after hearing confession evidence (Kassin & Sukel, 1997). Unfortunately we also know from research that juveniles are at an increased risk to give false confessions to police and this can lead

to wrongful convictions. Drizin and Leo (2004) state that false confessions are the main cause of wrongful convictions in 14-25% of cases.

Research on child witnesses indicates that juveniles are especially susceptible to false confessions because of a lack of maturity and decision-making capabilities as well as a focus on short-term rather than long-term consequences (Scott-Hayward, 2007). Many scholars believe police interrogation tactics cause false confessions because of the use of psychologically-coercive interrogation methods (Gould & Leo, 2010). Scholars have identified these coercive measures as causing stress, feelings of isolation and leading suspects to believe they have no choice but to confess. These methods often lead suspects to believe their guilt has been proven (Gould & Leo, 2010). Nirider and Bowman state that interrogation tactics lead to juvenile false confessions because the tactics were designed for adults (The Innocence Project, 2015). Juveniles' immaturity and inexperienced decision-making capabilities, combined with specific, effective interrogation tactics like rapport building, minimization, lies about evidence and witnesses, and leading questions produce false confessions (Feld, 2006). The National Registry of Exonerations reported that 38% of exonerations from juvenile convictions involved false confessions (The Innocence Project, 2015).

Unanswered Questions

Despite all the knowledge we have about *Miranda* comprehension, we know very little about how we can improve comprehension, specifically for juveniles. Grisso (1980) found that juveniles with two or more prior felonies and adult ex-offenders had higher

scores on some *Miranda* comprehension tests than those without any prior criminal history. This suggests that exposure to the legal system can shape knowledge, that juveniles can learn from experience, and that we may be able to teach juveniles about their rights. Feld (2006) found that juveniles with prior felony arrests were less likely to waive their rights (68% with prior felony arrest waived vs. 80% without prior felony), suggesting that experience in the criminal justice system leads to better comprehension. Furlong and Wall (1982) found that teenagers who took Street Law courses were less likely to waive their rights and more likely to request an attorney in simulated arrest situations. For that study, 48 high school students in Washington D.C. were subjected to simulated arrest scenarios after receiving street law courses, and 92% said they would not answer questions without an attorney. Interestingly however, these same students were still unable to correctly define specific terms in *Miranda* warnings, scoring an average of 13/20 on a definition quiz. After the legal training, these students did not perform well on a test, but they showed in simulated arrest scenarios that they understood the importance of remaining silent and requesting an attorney (Furlong & Wall, 1982).

Current Research

Based on what we know about *Miranda* misconceptions and the research on Street Law courses by Furlong & Wall (1982), a training program to help juveniles understand the role of an attorney, the meaning of a right, and the protections for their right to silence might help *Miranda* warnings to become “adequate protective device[s]” during the “compelling pressures” of interrogations (p. 458 and 467). The key question of

this research is whether a video-based training program that teaches juveniles about their 5th Amendment rights will improve their comprehension and understanding to a level that ensures that the 5th Amendment has “not become but a *form of words*” (*Miranda*, p. 444 citing *Silverthorne Lumber Co. v. United States*, 251 U.S. 385, 392 (1920)).

Thus, this study fills a gap in available knowledge and research. It uses an experimental design to test whether an education program for youth improves *Miranda* comprehension and understanding. This study also fills an important gap in the area of *Miranda* comprehension research because most prior research uses either undergraduate students or incarcerated youth as participants. While summarizing the existing research in this area, Rogers (2011) talks about what we know about undergraduates and what we know about defendants. There are very few studies in this subject area with inner-city youth participants.

CHAPTER TWO: MIRANDA CASELAW AND RESEARCH

Legal Status of *Miranda* Protections

In 1966, the Supreme Court decided *Miranda v. Arizona*. The *Miranda* decision is designed to protect the 5th Amendment right that “no person...shall be compelled in any criminal case to be a witness against himself” and by way of protecting this right, the decision also implicates the 6th Amendment right to assistance of counsel. The Court reasoned that providing a warning to suspects about their right to counsel would help them fully understand their 5th Amendment right against self-incrimination during a pre-trial interrogation. So in order to protect against compelled self-incrimination, the Court required suspects be advised of their 6th Amendment right to counsel. Justice Warren wrote in the decision that -- in order for a defendant’s custodial statement to be admitted at trial -- he must be told prior to his statement that he has the right to remain silent, that anything he says can be used against him, that he has the right to consult with an attorney, and to have the attorney present, and that if he cannot afford an attorney, one will be appointed (384 U.S. 436).

The Court in this case defines custodial as deprivation of “freedom of action in any significant way” (384 U.S. 436, 444). The 9th Circuit in *United States v. Kim* (2002) listed five factors to consider when determining if a person was in custody (language of officer, evidence of guilt, physical surroundings, duration of questioning and pressure

used to detain); other circuit courts have used a totality of the circumstances and reasonable person standard to determine the custody issue (*United States v. Romaszko* (2001) and *United States v. Luna-Encinas* (2010)). The totality of circumstances standard allows the court to consider many factors to determine if the person was in custody; it also gives the court flexibility to weigh certain factors more than others as long as there is a discussion in the decision. The “reasonable person” standard means that the court assesses whether a reasonable person would believe they were in custody given the facts in the particular case.

When determining the validity of a *Miranda* waiver, the court first determines the threshold issue of custody; if the suspect was not in custody *Miranda* warnings are not required. For example, if a detective calls a suspect on the phone and asks him questions about his whereabouts or participation in a crime, *Miranda* warnings are not required because the suspect is not in custody. In contrast, whenever an arrest is made, the suspect is in custody and *Miranda* warnings should be read in order for any statements to be admitted in court. One example of a non-arrest situation that could trigger the custody threshold is a police officer using a police cruiser to block in a vehicle with a suspect inside and then approaching the vehicle to ask questions and search the vehicle. In that situation, the suspect is not free to leave even though he is not under arrest and this could meet the legal threshold of custody.

The *Miranda* decision also requires the government (i.e. the prosecutor) to show that the person waived their rights knowingly, intelligently and without coercion (voluntarily) in order for the statements to be admitted in court. The legal definitions of

voluntary, knowing and intelligent are lower than psychological or other definitions; the legal standards focus on whether a person *could* understand in these circumstances and whether the interrogating officer explained the *Miranda* warnings, and not a case-by-case psychological assessment of the particular suspect and what they *actually* understood at the time (*Fare v. Michael C.*, 1979). The Merriam-Webster definition of knowing is “having knowledge.” Psychology scholars have studied the concept of knowing in terms of actual comprehension by the suspect; the question in those studies is whether the individual actually understood their rights at the time of the interrogation (Smalarz et al. 2016, Redlich et al. 2003, Viljoen, Zapf & Roesch, 2007). In contrast, the law does not examine a particular defendant’s knowledge or understanding, the legal definition of knowing does not include whether a particular suspect actually had knowledge of their rights, but whether the facts show that a reasonable person *could* understand or know their rights in that situation.

When reviewing a *Miranda* warning, because of the totality of the circumstances test, the courts focus on the actions of the interrogating officer, and not solely the mental capacity of the suspect (*Fare v. Michael C.*, 1979). If the officer informed the suspect of their rights under *Miranda* and there is no evidence of illegal tactics, the legal standard of knowing, intelligent and voluntary is most often met (*Fare v. Michael C.*, 1979). The legal definition of voluntary is very narrow and means a lack of police coercion (*Colorado v. Connelly*, 1986); coercion under the law is a narrow standard defined by the presence in the case of threats, violence, or improper promises (*Hutto v. Ross*, 1976).

This means that the officer's actions must meet a very high threshold in order to make a confession involuntary.

In practice, this means that a suspect stating he is confessing because voices told him to do so is not confessing involuntarily absent improper threats, violence or promises by police (*Colorado v. Connelly*, 1986). In *Colorado v. Connelly*, a man walked-up to a police officer in Denver and confessed to a murder. The police officer recited *Miranda* warnings to the defendant and the defendant subsequently gave a detailed statement. Later during discussions with defense counsel, the defendant said voices in his head made him confess to the crime and a psychiatrist examined him and concluded that he had hallucinations that interfered with his ability to make decisions (*Colorado v. Connelly*, pp. 160-163). The lower courts in Colorado ruled that his statements were inadmissible because they were not voluntary due to the defendant's mental condition. However, the Supreme Court overturned this decision and held that without evidence of coercive action by police, a statement is voluntary. This means that even if a person is coerced by other people or by voices in their head, the statements will still be considered voluntary under the law as long as the *police* did not coerce them. The legal definitions of knowing and intelligent do not require a full understanding of the implications of waiving *Miranda* rights in practice, but instead a showing that officers read the warnings and the suspect had the ability to communicate, determined by courts using the totality of the circumstances standard (*Fare v. Michael C.*, 1979).

Adding to the complexity of assessing *Miranda* waivers, the decision does not require police to advise all suspects of these rights; rather it established a "constitutional

rule of admissibility” (Clymer, p. 450, 2002). This means that a violation of *Miranda* only occurs at trial if a suspect’s custodial statement is admitted into evidence and they were not properly advised of their rights before giving the statement. In *United States v. Patane* (2004) the Supreme Court said that the “*Miranda* rule is not a code of police conduct, and police do not violate the Constitution (or even the *Miranda* rule, for that matter) by mere failures to warn” (542 U.S. 630, 637). This means that suspects do not receive any legal protection under the *Miranda* decision unless their case is resolved via trial. For suspects who accept plea offers or agree to plead guilty to charges, there is no mechanism to challenge violations of the *Miranda* decision.

In the U.S. federal court system, fewer than 3% of all charges go to trial; the vast majority of all cases are resolved through guilty pleas (Rakoff, 2014). Legal protections from the *Miranda* decision begin at trial when the prosecutor attempts to enter the defendant’s statement into evidence (and not during custodial interrogation); given the fact that most cases no longer end up in a trial, this has the practical effect of possibly limiting the protections of the *Miranda* decision. In cases that go to trial, defense counsel must file a motion to suppress and provide facts and evidence that show *Miranda* warnings were not given or that their client did not intelligently, knowingly and voluntarily waive their rights. In cases with enough evidence to support a successful motion to suppress, a defense counsel may advise their client to plead not guilty. Defense counsel have to help their clients balance the possibility of winning a motion to suppress based on *Miranda* with the risk of ultimately losing at trial.

Since 1966, a number of federal circuit cases have further defined and clarified the *Miranda* decision, providing more information about the purposes and scope of *Miranda* warnings. The Supreme Court held in *Michigan v. Tucker* (1974) that *Miranda* warnings are “not themselves rights protected by the Constitution but instead measures to insure that the right against compulsory self-incrimination is protected” (p. 444). In *Dickerson v. United States* (2000) the Supreme Court stated that *Miranda* warnings are not required by the constitution, and in *Missouri v. Seibert* (2004) said that the purpose of *Miranda* warnings is to reduce the risk of coerced statements. In other words, police may choose not to give *Miranda* warnings and that would not violate the constitution. A constitutional violation only occurs when a statement from a custodial interrogation is obtained without *Miranda* warnings and is admitted into trial. Additionally, police officers who do not read *Miranda* warnings to suspects are not civilly liable under 42 U.S.C. Section 1983 for violating the suspect’s constitutional rights, again confirming that the failure to follow *Miranda* guidelines is not itself a constitutional violation (Clymer, 2002). In 2004, the Supreme Court ruled that a common police practice of delaying *Miranda* warnings was unconstitutional (*Missouri v. Seibert* 542 U.S. 600). For years, many police were taught by national training organizations to interrogate suspects first, then take a break and provide *Miranda* warnings and then get the suspect to give the same statement again (*Missouri v. Seibert* at 609). There was a split among the Courts of Appeals as to whether this intentional practice of delaying *Miranda* warnings was constitutional until the Supreme Court decision in 2004 found the practice unconstitutional (*Missouri v. Seibert* at 607).

In *Berkemer v. McCarty* (1984), the Supreme Court expanded the *Miranda* ruling to any custodial interrogation (including for misdemeanor offenses) and said the purpose of *Miranda* is to prevent police from coercing or tricking suspects into confessing, to reduce the pressure of the custodial setting and to relieve courts from having to assess voluntariness on a case by case basis (p. 421). This means that the U.S. Supreme Court does not want judges to have to perform an individual psychological assessment of every defendant challenging the admission of his statement to police. After the *Miranda* decision, if interrogating officers did not read *Miranda* warnings, the defendant's statements would not be admitted in most cases ("unwarned statements may not be used as evidence in the prosecution's case in chief" *Dickerson v. United States*, 443-444, 2000). If officers do read the *Miranda* warnings to suspects, it makes it much easier for the prosecutor to establish that the defendant knowingly and voluntarily waived their rights and have the statement admitted in court. In many cases, the reading and explanation of *Miranda* warnings by police officers meets the knowing requirement – the courts find that after being read the *Miranda* warnings the suspect now knows their rights for the purposes of this legal standard (*Berghuis v. Thompkins*, 2010).

In the 1967 case of *In re Gault*, the Supreme Court extended *Miranda* protections to juveniles. Courts treat juveniles the same as adults in terms of legal standards related to *Miranda* warnings, requiring the same legal standard for reviewing *Miranda* waivers and assessing voluntariness (Feld, 2006). This means that (like *Miranda* waivers for adults) juvenile *Miranda* waivers must meet the "knowing, intelligent and voluntary" standard using the totality of the circumstances test. As mentioned earlier, the totality of the

circumstances test involves an “inquiry into all the circumstances surrounding the interrogation” (including factors like age, mental condition, capacity, education as well as actions by police officers) (*Fare v. Michael C.* 442 U.S. 707, 725). As with adults, juvenile waivers are considered to be voluntary absent police coercion, which is defined narrowly as threats, violence or illegal promises (*Fare v. Michael C.*). The legal definition of voluntary is very narrow and means a lack of police coercion (*Colorado v. Connelly*, 1986); coercion under the law is a high standard, narrowly defined as threats, violence, or improper promises (*Hutto v. Ross*, 1976).

Despite the lack of protection for juveniles in U.S. Supreme Court precedent, some state courts and legislatures have provided extra protections. States are free to extend greater rights than are afforded to their citizens based on their state constitutions because the federal constitution represents the minimum level of protection afforded to defendants. Iowa, Kansas, Massachusetts, Montana, New Jersey, New Mexico, and Washington all have requirements for the involvement of parents before or during juvenile interrogations (King, 2006). For example, in Massachusetts police are required to provide an opportunity for juveniles over the age of 14 to consult with an interested adult prior to asking juveniles to waive their *Miranda* rights (*Commonwealth v. Quint Q.*, 84 Mass. App. Ct. 507 (2013)). New Mexico law further prohibits the admission of statements by children under the age of thirteen (King, 2006; N.M. Stat. Ann. Section 32A-2-14). However, the majority of states (over 35 states) use the Supreme Court’s totality of the circumstances test for juveniles and adults alike (King, 2006). This means that the same low bar for admitting statements after *Miranda* warnings applies to adults

and juveniles. Even for those states with additional protections for juveniles, the presence of a parent or interested adult who also does not understand the *Miranda* warnings or their legal implications may not be helpful for juvenile suspects (Viljoen et al., 2007). A large body of existing research indicates that youth do not understand their rights during interrogations by police.

Juvenile *Miranda* Comprehension and Warning Content

In 1980, Grisso studied juveniles' ability to understand the words and phrases in common *Miranda* warnings and whether they comprehended the meaning and significance of the warnings. He had three samples of juvenile detainees (n=431) and two adult samples (for comparison purposes); one group was adult parolees (n= 203) and the second group was university employees (n=57). In the first study he assessed whether participants comprehended the words and phrases used in *Miranda* warnings using multiple measures – the Comprehension of *Miranda* Rights, Comprehension of *Miranda* Vocab, and the Comprehension of *Miranda* Rights True/False. For the second study he developed a measure to understand participants' ability to comprehend the significance of the rights and how they function. This measure focused on three areas of perception – understanding how an interrogation works and the role of police as adversaries, understanding the importance of the right to counsel and the role of an attorney, and fully understanding the right to silence. Grisso (1980) found that 44.8% of juveniles did not understand that they could consult an attorney before the interrogation or have an attorney present during the interrogation. Moreover, 61.8% of juveniles thought a judge

could punish them for invoking their right to silence. Overall, these results suggest that juveniles do not understand the language or implications of the *Miranda* warnings (Grisso, 1980).

Other research has shown adults with mental disabilities or psychological disorders do not understand the *Miranda* warnings (Kassin et al., 2010). Cooper and Zapf (2008) evaluated 75 inpatients at a psychiatric treatment center using the Grisso (1998) instrument to assess understanding of *Miranda* rights and Goldstein's (2002) revised instrument to assess understanding of *Miranda* rights. They found that psychiatric symptoms were negatively correlated with *Miranda* comprehension, even when they controlled for participants' IQ. Even with unimpaired adults, there is confusion regarding what the *Miranda* warnings mean. Grisso (1980) found that 14.6% of adults do not understand they may consult with an attorney prior to interrogation or have an attorney present for interrogation. Additionally, 21.7% of adults believed a judge could punish them for remaining silent during interrogation (Grisso, 1980).

Redlich et al. (2003) confirmed Grisso's findings that juveniles perform worse than adults on *Miranda* comprehension tests. This study had 35 participants -- 18 juveniles and 17 adults -- recruited from a high school and community center and used multiple measures to assess suggestibility, understanding of *Miranda* rights, and competence to stand trial. The study used multiple regressions to examine the relationship between scores on the various assessments and also compared scores on those assessments between the juvenile and adult participants. In a different study, juveniles were tested for a basic understanding of *Miranda* warnings and 58% were

considered impaired, whereas when they were tested for understanding and comprehension, 78% were impaired (Viljoen, Zapf & Roesch, 2007). In that study, the authors defined impaired as two or more standard deviations below the average adult scores on three scales assessing comprehension of *Miranda* rights, understanding of *Miranda* rights, and comprehension of *Miranda* vocabulary. These psychological assessment instruments are designed to be used in a one-on-one setting with a practitioner -- Grisso's Comprehension of *Miranda* Rights (CMR), designed to assess understanding of *Miranda*; Grisso's Comprehension of *Miranda* Rights – Recognition (CMR-R), an assessment that requires respondents to recognize and match similar sentences; and the Comprehension of *Miranda* Vocabulary (CMV) test requiring correct definition of terms.

Viljoen et al.'s (2007) study used Grisso's instruments to examine 152 juvenile defendants held in a detention facility. The CMR, CMR-R and CMV were used to assess the participants' understanding of *Miranda* and the Function of Rights in Interrogation (FRI) was used to assess their appreciation of *Miranda* rights. The FRI focuses on elements like the right to counsel, the right to silence and the function of an interrogation. Their findings indicate that some juveniles say they understand they have a right to an attorney, but -- when additional questions are asked -- they may not know the role of an attorney or understand that speaking with an attorney is helpful. This also suggests that depth of understanding may be important (beyond familiarity with the words contained in the warnings). After thirty years of studying juvenile comprehension, Grisso concludes that many do not understand the *Miranda* warnings in enough detail to navigate a police interrogation without the assistance of an attorney (Feld, 2006). Rogers et al (2014) also

found that juveniles were confused about the role of police officers and the role of defense attorneys, with many believing the police are there to help them and that defense counsel will disclose their confidential conversations to the judge. These misconceptions are very serious and harmful because they completely undermine any understanding of the rights encompassed by *Miranda* warnings. No matter how clearly a warning is written, it will never be able to teach a juvenile suspect enough to correct these misconceptions about the role of police officers and defense counsel.

Research on the content of *Miranda* warnings tells us there are over 945 different *Miranda* warnings across 638 jurisdictions, ranging from 21 to 408 words and with reading levels from second grade to college level (Rogers et al., 2007; Rogers et al., 2008; Rogers, 2008). The Supreme Court decision in *Miranda v. Arizona* gives jurisdictions flexibility when crafting their warnings, as long as the basic elements are present. Rogers et al. (2007) obtained *Miranda* warnings from sheriff's departments and public defender offices across the United States. They analyzed 560 warnings using the Flesch Reading Ease (Flesch, 1948) measure, the Flesch-Kincaid measure (Flesch, 1950) and the SMOG formula used to calculate reading levels (Rogers et al., 2007). They found the "right to an attorney" component had 142 variations, from less than ten words and below a 6th grade reading level, to 44 words and above a 12th grade reading level (Rogers et al., 2007).

Many scholars have recommended juvenile specific *Miranda* warnings in order to partially combat this problem. However, rather than ameliorating it, recent research has found that juvenile specific warnings are longer and in many cases are written at higher

reading levels than are warnings designed for adults (Rogers et al., 2012 and 2014; Rogers, 2008). This is often because juvenile specific warnings are written to provide more detailed information and this results in longer warnings (Rogers, 2008). The confusing language and high reading levels add to a juvenile suspect's inability to understand *Miranda* warnings in many situations. This is a problem because a failure to understand basic constitutional rights before and during an interrogation can lead to ill-considered waivers of 5th Amendment rights and, in the case of juveniles especially, it can lead to false confessions.

False Confessions and Convictions

A growing area of *Miranda*-related research concerns the link between false confessions and wrongful convictions. False confessions are a leading cause of wrongful convictions and three factors are found to be consistent contributors to false confessions: young suspects, coercive police tactics and long interrogation sessions (Feld, 2006). Drizin and Leo (2004) report that false confessions are the main cause of wrongful convictions in between 14 to 25% of cases. They examined 125 cases with known false confessions; these cases were identified from media and legal databases and corroborated with police reports, trial records or articles and books. They compiled a database on the 125 cases, including newspaper articles, transcripts, sometimes audio or video from interrogations, police reports and other materials. Prosecutions involving juveniles made up 33% of the cases and more than half of the suspects who falsely confessed were younger than 25. In 39% of cases, the interrogations lasted between 12-24 hours, while in

over 80% of cases, the interrogations lasted more than 6 hours (Drizin & Leo, 2004). Interrogations are designed to produce a confession and police are trained in interrogation tactics that cause stress, isolation, anxiety and powerlessness (Drizin & Leo, 2004). Tactics include suggesting that individuals should confess because there is no other option, bringing up the existence of other evidence (that may not be true), and suggesting that the charges or punishment will be less serious if the person confesses (Drizin & Leo, 2004).

Many scholars argue that juveniles are often taught to obey adults and they are less powerful than the adult police officers conducting interrogations and that these imbalances make them more vulnerable during interrogations (Feld, 2006). In the Drizin and Leo (2004) study discussed above, young people were over-represented, making up over half of the false confession cases. Feld (2006) obtained sixty-six records of interrogations of sixteen and seventeen-year-old defendants from a county in Minnesota. In his study, 80% of the juveniles waived their *Miranda* rights. Feld (2006) also identified common tactics used by police in his study, officers describing their role as neutral and objective, asking leading questions, confronting suspects with evidence and accusing suspects of lying. Research on child witnesses suggests that juveniles are especially susceptible to false confessions because of a lack of maturity and fully developed decision-making capabilities, as well as a focus on short-term rather than long-term consequences (Scott-Hayward, 2007). It is possible juveniles may think giving a statement to police and admitting to the accusations against them will get them home faster; they may not understand the long-term consequences of confessing criminal

activity to police. Additionally, juveniles are less able to resist interrogation tactics; they are more compliant with authority figures and more likely to tell police what they want to hear (Feld, 2006). In Feld's study, police confronted juveniles with statements allegedly made by co-defendants in 55% of the cases (2006). He also reported that in 36% of the cases, officers used tactics to raise juveniles' stress and undermine their confidence; for example, telling them remaining silent will result in worse punishment (2006). For these reasons, many scholars believe police interrogation tactics cause false confessions; what we know about these tactics is described in more detail below (Gould & Leo, 2010).

Interrogation Tactics

Existing research suggests that juveniles do not understand the meaning or consequences of *Miranda* warnings (Grisso, 1980, Redlich et al., 2003, Viljoen, Zapf & Roesch, 2007). Case law establishes the same legal standard and test for knowing, intelligent and voluntary waivers of *Miranda* rights by juveniles and adults despite the psychological evidence supporting different cognitive and mental abilities (Cohen & Casey, 2014). And police use the same interrogation tactics on juveniles and adults (Feld, 2006). It is important to learn more about interrogation tactics to better understand how they relate to false confessions. False confessions are present in many juvenile wrongful conviction cases; Drizin and Leo (2004) found 33% of the 125 false confessions in their study involved juveniles. The National Registry of Exonerations reported that 38% of exonerations from juvenile convictions involved false confessions (The Innocence Project, 2015).

Unfortunately, we know very little about police interrogation tactics in practice. Interrogations take place in private therefore, we have limited information about their effects (Leo, 1996). Police interrogation manuals often instruct officers to use the same techniques with juveniles and adults (Feld, 2006). Richard Leo (1996) conducted one of the few studies on interrogation tactics, examining 182 interrogations in California, and 78% of his sample waived their *Miranda* warning rights (which Leo interpreted as a “successful interrogation”). He worked inside Laconia Police Department observing and coding interrogations the department allowed him to attend. All of the interrogations Leo observed were for felony offenses, with 81% for crimes against persons. Out of the 182 interrogations, suspects who waived their *Miranda* warnings and gave incriminating statements were twice as likely to have their case resolved via a plea deal. Furthermore, 98% of the cases in his study that resolved via a plea deal resulted in convictions. Leo argues that these results provide support for the argument that confessions are very persuasive pieces of evidence. Leo observed that detectives almost always used two tactics – appealing to the defendant’s self interest (e.g. saying the defendant would be better off if he confessed, in terms of punishment or plea deal offers) and confronting him with evidence of his guilt (including false evidence) (Leo, 1996). The Supreme Court held in *Frazier v. Cupp* (1969) that an officer providing false evidence during an interrogation is not enough to make an otherwise voluntary confession inadmissible (394 U.S. at 739). Ten years later, Feld (2006) used the same coding and studied interrogations of juveniles in Minnesota, where 80% of the sample waived *Miranda* rights. Leo provided the unpublished coding form to Feld to use in his study, it is a detailed

document used to record whether juveniles waived their *Miranda* rights, what tactics officers used during interrogation, and the responses from juveniles (Feld, 2006).

Feld (2006) found that officers start with small talk, sometimes offering a drink or trying to build a bond with suspects before reading the *Miranda* warnings. In almost 20% of cases, officers described their roles to suspects “as neutral, objective fact finders trying to determine what happened, rather than as adversaries” (Feld, p. 258, 2006). This is important, because it could lead juveniles to believe the interrogation is not an adversarial process and lead them to trust and believe police. In the same percentage of cases, officers “advised the youths that they could distinguish between suspects who lied or told the truth, and reassured them that they would not lie to or trick them” (Feld, p. 258, 2006). In 49% of cases, officers used leading questions during the interrogation (Feld, 2006). A leading question is a question that contains many facts and statements and only allows for a one-word response. This can be problematic because the suspect is forced to either accept facts and statements that may not all be true, or deny statements and facts that may be partially true and then be accused of lying. Officers also attempted to make suspects doubt their confidence in denying guilt, confronted them with false evidence, tried to lessen the moral seriousness of the offense and identified problems in the suspect’s story (Leo, 1996). Leo reported the use of false evidence in 30% of interrogations (1996). Feld (2006) reports that in 36% of juvenile interrogations, the officer told the suspects that remaining silent could make the situation worse or that the suspects could face greater punishment if they did not confess. These tactics are notable because they include misrepresentations by police officers.

In Leo's (1996) sample, 70% of interrogations took less than one hour and 64% resulted in the suspect giving some kind of incriminating statement. This means that most interrogations do not take a lot of time and most suspects give incriminating statements. Police tactics are very successful at obtaining incriminating statements; after excluding the suspects who invoked their rights and terminated the interrogation, 76% of Leo's remaining sample (those who spoke with police) ultimately provided incriminating statements (1996). He also found that suspects who waived their *Miranda* rights were twice as likely to agree to a plea bargain, and 98% of plea bargains resulted in a conviction (1996). Redlich et al. (2018) found that defendants who fully confessed to crimes were more likely to plead guilty while defendants who did not confess had lower rates of guilty pleas. Thus, the decision to waive *Miranda* rights has significant downstream effects on case resolution and conviction. In fact, Drizin and Leo (2004) argue that juries will convict a defendant based solely on a confession, without any additional evidence. This means that the risk of false confession may translate into very significant consequences for juvenile suspects. One reason why juveniles may be overrepresented in cases with false confessions and wrongful convictions is because of their stage of brain development and decision making abilities.

Juvenile Brain Development

In the past, almost all research on adolescence and cognitive functioning came from psychological studies, but recently the field of developmental neuroscience has expanded and helped to explain the biological differences between adolescents' brains

and those of mature adults (Steinberg, 2009). The newer research into the neurobiological characteristics of adolescents is powerful because it tells us that youth do not have impulse control or consider long-term consequences (indeed they physically cannot) based on their brain development (Steinberg, 2009). Casey et al. (2008) developed a neurobiological model of adolescent brain development using imaging studies of children, adolescents and adults. The model explains how adolescents are able to use reason and understand risks but in many cases make risky choices anyway (Casey et al., 2008). This model explains that in adolescents, the limbic system takes over decision-making from the prefrontal cortex during emotional situations, which results in an adolescent making a poor choice while being cognizant of the fact that they are not making a good decision (Casey et al., 2008).

The U.S. Supreme Court has taken notice and recognized that there are “fundamental differences between juvenile and adult minds” (*Miller v. Alabama*, p. 2464 (2012), citing *Graham v. Florida*, 560 U.S. 48, 2010). The Supreme Court has recognized in many cases that, “children cannot be viewed simply as miniature adults” (*Miller*, p. 2470). There is strong scientific evidence of “immature cognitive functioning in juveniles” (Cohen & Casey, p. 63, 2014). Galvan et al. (2006) used functional magnetic resonance imaging (fMRI) to study the neurobiological development and reward-seeking behavior of 37 participants. They wanted more information about neurobiological factors that impact the risk-taking behavior commonly observed during adolescence. The participants were tested using a delayed-response test during which a cue presented on the screen and they had to use either their index or middle finger to

indicate its location on the screen. Each of the three cue pictures were linked to a small, medium or large reward. The participants were told they could earn more money in the study depending on performance – which would be measured by how quickly they used the correct finger to indicate where the cue was located. During this test the participants' brains were imaged using an MRI machine. The nucleus accumbens is a region of the brain associated with reward. Galvan et al. found that in the adolescent participants there was a much higher percentage of MR signal change in the accumbens region.

Additionally, the adolescent participants had significantly faster reaction times to the large reward cues. Galvan et al. (2006) argues that these findings suggest neurobiological differences in adolescents may relate to the increase in risky and reward-seeking behavior observed during the adolescent phase of development.

Many studies support the fact that the prefrontal cortex, necessary for behavior regulation, does not fully mature until the early twenties (Cohen & Casey, 2014). At the same time, there is an increase in dopamine activity in the socioemotional system of the brain, which leads to an increase in reward-seeking and risky behavior (Steinberg, 2009). Galvan et al. (2007) conducted an additional study with a subset of the participants in the fMRI study discussed above. They compared the fMRI results to three additional measures – a risk taking assessment, a risk perception assessment and an impulsivity measure. They found enhanced accumbens activity was positively correlated with participants' reports of risk-taking behavior and the likelihood of engaging in risky behavior in the future. They also found a positive correlation between the likelihood of engaging in risky behavior when a positive consequence (reward) was anticipated. They

discovered evidence of a change in anticipation of consequences between the child participants and adult participants that they argue could help explain observed adolescent risky behavior (Galvan et al., 2007). Steinberg et al. (2008) studied 935 participants between the ages of ten and thirty using multiple measures to assess intelligence, puberty status, impulsivity and working memory. They found adolescents showed increased sensation seeking with a decline into adulthood. They also found a steady decline in impulsivity from age ten into adulthood. Emerging evidence supports the argument that an interrogation room is a stressful and emotional situation and “the neurobiological and psychological immaturity of adolescents may render them more vulnerable to making poor decisions” (Cohen & Casey, p. 64, 2014).

Common interrogation tactics, like deception, manipulation and psychological persuasion may lead to a higher risk of false confessions in juveniles because of their stage of brain development (Scott-Hayward, 2007). Adolescents are much more sensitive to immediate rewards (Steinberg, 2009; Weigard et al., 2013), so if an interrogating officer tells a child that they will be released sooner if they talk, they may take the risk for the possibility of an immediate reward. They may also be more likely to disregard the future consequences of waiving their *Miranda* rights. Studies have shown that even 18 year olds are less focused on the future and more impulsive than adults in their mid-twenties (Steinberg, 2009).

Racial Disparities in Arrests and Implications

A growing area of research has identified significant disparities in arrests between White juveniles and Black and Hispanic juveniles. Between 2003 and 2013, the disparity between arrests of White youth and Black youth grew by 24% across the U.S. (Rovner, 2016). Research shows that White, Black and Hispanic youth are similarly as likely to get into fights, steal, use drugs or carry a weapon, but arrest rates for these common offenses are disproportionate (Rovner, 2016). This has implications for this research, because *Miranda* warnings follow arrest. If Black youth are much more likely to be arrested this means they may be more likely to suffer the downstream impacts of not understanding *Miranda* warnings or their rights.

Video-Based Education

This study uses an educational video (as opposed to live, in-person training) because it is more easily reproduced and less expensive to make publicly and widely available. The use of videos in education has become very popular and can be very effective, according to multiple meta-analyses (Brame, 2015). Before deciding to use a video-based program, however, it was important to understand how to maximize its effectiveness. Systematic research on the use of videos in education began in 2002 (Kay, 2012). In a comprehensive review of existing research on educational videos, Kay (2012) found that students had a positive attitude towards educational videos and that the use of videos improved study habits and did not reduce lecture attendance. She reviewed 53 studies on the use of videos in education and found evidence of a positive impact on test

scores and self-reports on performance from the use of educational videos. Most of the research reviewed by Kay (2012) involved undergraduate students. Kay's review of existing evidence provides support for the argument that videos can be an effective part of education (Brame, 2015). Brame is the Assistant Director at Vanderbilt's Center for Teaching and published resources on how to create effective educational videos, which are discussed in more detail below.

The cognitive theory of multimedia learning describes two channels in working memory that process and store new information, the visual channel and the auditory channel (Brame, 2015 and Mayer & Moreno, 2003). Educational videos that use both channels increase learning; in other words, displaying a diagram while having a background narrator explain the diagram helps students to retain the information better than showing a diagram alone or providing narrated instruction alone (Brame, 2015 and Mayer & Moreno, 2003). Mayer & Moreno (2003) discuss a series of eight studies completed at their university that found students performed better after presentations that combined animation and narration, compared to presentations that presented narration and animation sequentially. During the past fifteen years of research, education scholars have identified characteristics and provided guidance for creating effective educational videos (discussed in detail below).

Another recommendation coming from the research on educational videos is to use "signaling" (Brame, 2015). One example of signaling is the use of on-screen text to highlight certain information for students; this helps them process and store that information in memory (Brame, 2015). Mayer & Moreno (2003) discuss multiple studies

that found students performed better on subsequent tests after viewing narrated animation with signals that highlighted key facts (e.g. arrows, headings, or stressing words in speech) as compared to narrated animation without the use of signaling. Signaling also helps students understand which information is the most important to remember (Brame, 2015). Guo et al. (2014) collected data from 6.9 million video-viewing sessions, and found that six-minute-long videos were the best length to maximize student-viewer attention. In contrast, Guo et al. found that only 50% of viewers stayed engaged with a video lasting only a few minutes longer (9-12 minutes).

Similarly, Meyer (2008) and Guo et al. (2014) found that conversational speaking led to greater student viewer engagement. As a consequence, Guo et al. (2014) recommended that actors in videos speak with enthusiasm and at a relatively fast pace to keep students interested. Additionally, Zhang et al. (2006) compared interactive and non-interactive videos and found that students watching interactive videos learned more and enjoyed the process more. These are all practical and specific recommendations that were followed when creating the *Miranda* training video used in this research.

Existing Research on *Miranda* Education

There are no published studies in peer-reviewed journals that answer whether juvenile comprehension of *Miranda* warnings can be improved by an education program or whether improved comprehension leads to the invocation of rights in the real world. Furlong and Wall (1982) found that 48 teenagers who took Street Law courses were less likely to waive their rights and more likely to request an attorney in simulated arrest

situations, even though they could not properly define all of the relevant legal terms during a quiz. Those findings would appear to support the idea that students can be taught the real-world significance and importance of remaining silent and requesting an attorney, even if they may not score well on a survey or quiz about legal terms in *Miranda* warnings.

Additionally, in a dissertation, Clomax (2016) assessed the extent to which juvenile comprehension of *Miranda* could be improved by participation in a 20-minute lecture. A total of 44 juveniles participated in the Clomax study by taking a written *Miranda* comprehension assessment and then a second assessment directly following the lecture to test if comprehension improved. There was no control or comparison group. She used a portion of Goldstein et al.'s (2012) *Miranda* Rights Comprehension Instrument – called the Comprehension of *Miranda* Rights-Recognition-II (CMR-R-II) – as the pretest and posttest. This is a copyrighted and licensed measure that assesses understanding of the five parts of the *Miranda* warning (Clomax, 2016). Clomax (2016) found that the students scored higher on the posttest than the pretest and, therefore, concluded that juveniles can be educated and can retain information about their constitutional rights as they pertain to the *Miranda* warnings.

We know very little about practical methods to improve juvenile comprehension of constitutional rights, specifically those encompassed by *Miranda* warnings. The related research over the past three decades highlights the substantial downstream effects of juveniles failing to understand their criminal rights during interrogations. Empirical research suggests that most adults and juveniles waive their *Miranda* rights (Leo, 1996).

Generally speaking, juveniles and suspects with mental disabilities do not understand the *Miranda* warnings (Grisso, 1980; Kassin et al., 2010; Redlich et al., 2003). *Miranda* warnings themselves are varied and written at high reading levels (Rogers et al., 2007; Rogers et al., 2008). And, perhaps because of interrogation tactics as well as physical and cognitive differences, juveniles are overrepresented in false confessions and highly susceptible to making false confessions (Drizin & Leo, 2004; Scott-Hayward, 2007). This study attempts to fill an important gap in the area of *Miranda* warnings research, by examining whether an educational video can improve youth comprehension of *Miranda* warnings and whether the improved comprehension lasts 1-3 months. This study also fills an important gap by studying non-detained youth from two large urban cities.

CHAPTER THREE: DATA AND METHODS

Existing research suggests that youth do not understand *Miranda* warnings or the underlying rights (Grisso, 1980; Kassin et al., 2010; Redlich et al., 2003). Juveniles are overrepresented in false confessions and this is a serious problem because confessions are seen as very strong pieces of evidence in the criminal justice system (Drizin & Leo, 2004; Scott-Hayward, 2007). The objective of this research was to develop a practical, accessible, educational video that helps improve youths' understanding of their rights during police interrogation, and then to find out whether the video works in reducing misconceptions regarding *Miranda* warnings in youth. This study uses an experimental design to test whether the video helps reduce serious misconceptions about *Miranda* warnings.

Study Design

An experimental design was selected because it allows for the strongest conclusions about causation (Weisburd & Hinkle, 2012). The defining characteristic of an experiment is random assignment to experimental and control conditions. Internal validity is the ability to determine whether the relationship between two variables is causal or not (Cook & Campbell, 1979). Randomization leads to high internal validity because confounding factors are spread randomly between the experimental and control

group, so any remaining (or unknown) differences between the groups are not systematic. This means that measured differences between experimental and control groups can be ascribed to the treatment itself (Weisburd et al. 2001; Weisburd & Hinkle, 2012). Some scholars regard randomized experiments as the gold standard in design and methodology due to the very high internal validity (Farrington, 2003). In fact, a leading scholar in the field of Criminology has said there is a moral imperative to conduct randomized experiments whenever possible because of the confidence in the results from this type of design (Weisburd, 2003).

This study used an experimental design with a pretest of all respondents (Survey 1), random assignment to the experimental condition (seven-minute video), an immediate posttest for the experimental group (Survey 2) and then a second posttest for all participants approximately one month later (Survey 3). The control group did not take Survey 2 because it contained the same questions as Survey 1 and would have been administered immediately following the completion of Survey 1. IRB approval was obtained and renewed over the course of the study. The parental recruitment letter (A), parental consent form (B), 18-21 year old consent form (C) and child assent form (D) are all attached in the Appendix.

Description of Procedures

Hundreds of principals, camp directors, youth leaders and community leaders were contacted across the United States and provided information about the study via email. Many of these community leaders responded and discussed the study with the

author. The author followed-through with every organization that wanted to participate and set dates for participation, which resulted in four study sites. The leaders at the four study sites were school principals and a basketball camp director who agreed to support this research after being contacted via email and provided with information about the study. Parent information and consent forms as well as information and consent forms for participants over eighteen were mailed to these leaders at each study site. The principals and camp director gave copies of the correct forms to every student at each site at least two weeks prior to the identified date of participation. The forms explained the procedures and time requirements and parents had time to review and decide whether to provide consent. The forms provided parents with the author's email and phone number to contact with any questions. The principals and camp director reminded students about the opportunity in person and via email two days prior to the study date. The author was the sole researcher present and managing each study site and was always available to answer any questions.

Participants (with signed consent forms) came in small groups (10-15) to an unused classroom and were then given child assent forms explaining the study and process. Participants over the age of 18 did not require parental consent and signed their separate consent forms at the study site. After consent was provided, participants were provided a paper copy of Survey 1. At this time, the researcher also randomized all participants, assigning them to either the control or experimental group. Participants were instructed to raise their hand quietly when they finished Survey 1. As participants in the control group finished Survey 1 and raised their hand, the researcher collected the survey

and participants were told thank-you, that they were finished and to quietly leave the room.

After completing Survey 1, participants in the experimental group raised their hand and were given a laptop with headphones to view the video individually. They could pause and rewind as needed and adjust the volume. After indicating that they were done watching the video, they were given a printed copy of Survey 2. Once they completed Survey 2, they returned the survey and left the classroom. On average, the procedure took approximately fifteen minutes for participants in the control group and thirty minutes for participants in the experimental group. There were approximately 10 participants working at one time and all participants at each site completed the procedure in the same day. After approximately one month, the researcher returned to the same study sites and the same classrooms (except for one study-site that used a new classroom) and participants completed Survey 3 and received \$10 for their participation. Leaders at each site reminded participants of the follow-up a few days before the date. At the final follow-up, all control group participants were given the opportunity to watch the video after completing Survey 3. Some experimental group participants also chose to watch the video again.

The participants in the experimental group were not permitted to access the video during the one month follow-up window between Survey 2 and 3. Further, the video was not accessible to the public or the participants during the study. All participants were instructed not to discuss the study or the video with anyone else until the study was complete.

Randomization

Participants were simply randomized into experimental and control groups using Dr. Barak Ariel's Cambridge Randomiser (Ariel et al., 2012). The Cambridge Randomiser allows researchers to randomize in studies where the sample size is not known or identified in advance (Ariel et al., 2012). Small groups of participants came to designated rooms at each study site, consent forms were collected and students were randomized as they arrived.

This resulted in 43 participants in the experimental group and 44 in the control group.¹ Block randomization can help to increase statistical power and increase equivalence between experimental and control groups, but the populations at each of the four sites were very similar to each other. Since the overall sample size was not small, the decision was made to forego block randomization (Weisburd & Gill, 2014). As will be discussed in the Results section, the experimental and control groups ultimately produced no significant differences in terms of scores on the baseline survey, suggesting that simple randomization was effective (see Table 1 in data section below).

¹ Overall n=87, however two participants reported their age as 11 on Survey 1 and therefore their survey entries were coded as missing data since the approved age range was 12-21. This is why in the results section, analyses show an n of 85.

Description of Measures

As discussed above, this study utilized three surveys for data collection. Survey 1 began with questions gathering demographic information, such as grade level, age, ethnicity, gender and whether the participant receives free or reduced lunch at school. Following the demographic questions, participants were asked if they had ever been arrested (yes/no, how many times), if police had ever read them *Miranda* warnings (yes/no, how many times), and if they had spent time in a detention facility (yes/no). The next question on Survey 1 asked participants to write down any words or parts of a *Miranda* warning they can remember – this is the basis of the *Miranda* recall variable (the construction of the variable will be explained in detail below). Surveys 2 and 3 did not contain the demographic or prior arrest questions, they both began with the *Miranda* recall question.

Following the *Miranda* recall question, each survey contained the same 23 true/false questions from Dr. Richard Rogers' Juvenile *Miranda* Quiz (an unpublished measure). Dr. Rogers gave the researcher permission to use the JMQ. Additionally, the researcher signed a licensing agreement and paid PAR Inc. for the license to use the questions since they are the copyright holders of a portion of the JMQ. The JMQ was developed by Dr. Rogers from the *Miranda* Quiz (MQ) which was created in 2010 to assess misconceptions held about the five components of *Miranda* warnings (e.g. the right to silence, how evidence will be used, the right to counsel, the right to free counsel, and the continuing nature of these rights) (Rogers et al., 2013). The MQ is also copyrighted and held by PAR Inc. The MQ contains 25 true/false questions designed to

assess misconceptions held by adults. Four legal experts independently rated the MQ and the results suggest high content validity (interclass correlation (ICC) = .96) and scoring reliability (ICC = .97). To create the JMQ, Dr. Rogers adapted true/false questions from his original *Miranda* Quiz (MQ) for adults (Rogers et al., 2014) and then added additional questions that he based on results from juvenile-specific research. In order to adapt questions from the MQ, Dr. Rogers changed words like “retract” to “take back” (Rogers et al., 2014). Legal experts rated the JMQ and indicated that the survey has high scoring reliability (ICC = .98) and high content validity (ICC = .95). Because of copyright laws, the survey used in this research cannot be attached as an appendix, however Table 5 contains abbreviated versions of each question used in the three surveys.

Rogers et al. (2014) found the Juvenile *Miranda* Quiz has a low required reading level, with a Flesch-Kincaid reading level estimate of 5.8 per item. This means that the average reading level required to read and understand each item is just below a 6th grade reading level. The Flesch-Kincaid measure provides an estimate of the grade level associated with reading skills necessary to understand a written document by assessing the sentence length and average syllables per word contained in it (Rogers et al., 2007). Rogers et al. (2014) also report that independent experts rated each item of the JMQ for content validity and scoring and the intraclass correlation coefficients were .95 and .98 respectively (Rogers et al., 2017).

The Rogers’ Juvenile *Miranda* Quiz (JMQ) contains 40 questions in total. This study uses 23 of those questions for all three surveys, a list of abbreviated questions can be found in Table 5. The surveys focused on the four main elements of the *Miranda*

warning: 1. the right to silence, 2. the dangers associated with giving a statement, 3. the right to an attorney, and 4. the fact that an attorney can be provided free of charge (384 U.S. 436). Some items were re-worded or not used because they went beyond the scope of this research which was focused specifically on the most efficient and practical way to teach juveniles the four main elements of *Miranda* warnings and the underlying constitutional rights associated with these. For example, there are questions in the JMQ focused on the definition of terms like indigent, but because an understanding of indigent is not necessary in order to understand the main elements of the *Miranda* warning, these questions were not included. The average reading level at one study-site was between 3rd and 4th grade (as reported by the school counselor), so words like convict, suspect, indigent and guilty on the JMQ were changed to more simple terms (K. Alexander, personal communication, November 13, 2019). For example, instead of the word “guilty” the phrase “show you did something wrong” was used, and instead of the word “indigent” the phrase “if you don’t have money” was used.

Survey 3 ends with additional questions not present on Survey 1 and 2. At the end of Survey 3, participants were asked: “[o]ver the past month, since the first time you took this survey, have you been arrested” (yes/no) and “If yes, how many times?” (1-3, 4-6, 7-10, 10+). Participants were asked “[s]ince the first time you took this survey, has a police officer read the *Miranda* warnings to you?” (yes/no) and “[i]f yes, how many times?” (1-3, 4-6, 7-10, 10+). If they answered yes, they were asked “how did you respond” to the *Miranda* warnings (“I gave the police a statement” or “I told police I wished to remain

silent or asked for an attorney”). Survey 3 concluded with asking participants who watched the video four yes-no questions about their reactions to the video.

1. “Did you talk to anyone else about the training video and what you learned?” 2. “Do you think you learned something about your rights by watching the training video?” 3. “Do you think you will watch the video again in the future?” 4. “Would you recommend watching this video to your friends and/or family?”

Treatment

The treatment consisted of a training video created for the purposes of this research. A class of approximately twenty high school students at a large urban high school (in a different city from the four study sites) served as an informal focus group for the educational video. Research detailing common language, phrases and tactics used by police officers during interrogations of juveniles was reviewed and used to create the script for the first version of the video (Feld, 2006). Based on the students’ feedback and critiques on December 20, 2017 and January 3, 2018, the video went through three different iterations. The first version of the video had actors – a police officer, student, principal and lawyer – who acted out a story in which a high school student was arrested and interrogated at school. The focus group commented that the police officer was not believable (partly because he did not have a firearm) and they did not learn a lot from this version. As a result of this feedback, the second and third versions became more focused on instruction and added real-world clips of police officers to maintain viewers’ interest and attention.

The training video content was developed based on an informal review by the author of the literature describing common misconceptions about *Miranda* warnings in juveniles. Existing case law and legal research on *Miranda* warnings and constitutional rights during police interrogations and the author's experience as a criminal defense attorney also provided a basis for much of the content. The video was intentionally designed to be approximately 7 minutes in length, because research shows that 6-7 minute videos are the optimal length to enable students to stay focused and retain information (Guo et al., 2014). Guo et al. (2014) collected data from 6.9 million video-viewing sessions, and found that six-minute-long videos were the best length to maximize student-viewer attention. In contrast, Guo et al. found that only 50% of viewers stayed engaged with a video lasting only a few minutes longer (9-12 minutes). The video created for this research uses text in conjunction with speaking in the film to help highlight the most important information for viewers. This technique is called signaling and has been found to help students understand what information is the most important to remember (Brame, 2015). The video is now publicly available to view at www.youtube.com/c/katedoylefeingold.

Data

Participants

The participants were recruited from two large urban cities in the United States and ranged in age from 12-21 years. One study site was an inner-city basketball camp and three other sites were inner-city alternative high schools. The student population at all

three high schools was over 90% Black (K. Alexander, personal communication, November 13, 2019; B. Willmott, personal communication, November 19, 2019; J. Dancy, personal communication, November 15, 2019). Additionally 100% of students at these high schools qualified for free or reduced lunch, and the majority of students perform below grade level in reading and math as reported by school principals (K. Alexander, personal communication, November 13, 2019; B. Willmott, personal communication, November 19, 2019; J. Dancy, personal communication, November 15, 2019). The schools are dropout prevention and recovery schools with high rates of truancy, and many students face challenges like homelessness and mental health issues. Dropout prevention and recovery schools are schools for students who have experienced problems with truancy in the past or who have been suspended from traditional schools (K. Alexander, personal communication, November 13, 2019). After the principals and director agreed to participate and dates were identified for the study sites, paper copies of the parent information letter, the parent consent form, and the consent form for 18-21 year old participants were mailed to the study sites (see Appendix A-C for these documents).

All parents with children between the ages of twelve and eighteen were contacted by school principals or the camp director and provided with paper copies of the information and consent forms. At the study sites, parental consent forms were collected and child assent forms provided for participants between the ages of twelve and eighteen. Participants who were 18-21 years old received their own consent forms prior to participation. All participants were instructed not to discuss the study or the contents of

the video with other participants. Contact information was collected with the consent forms, but it was later destroyed once follow-up was complete. Every participant who completed the final survey (Survey 3) received ten dollars as an incentive to reduce attrition. All completed surveys will be preserved for five years as required by the Institutional Review Board.

Out of the overall sample (experimental and control group), 71% reported being Black or of multiple ethnicities, 9% reported being white, 1% reported being Latino or Hispanic and 1% reported “other” (18% did not respond). 80% reported receiving free or reduced lunch, with the remainder reporting not receiving free lunch. 95% reported English as the main language spoken at home with the remainder reporting Spanish or other. Table 1 shows demographic characteristics of the participants, broken down into experimental and control groups. This table further shows the similarities between the experimental and control groups with respect to age, gender, ethnicity and other characteristics.

Table 1. Characteristics of Experimental and Control Group

	Experimental (<i>n</i> = 43)	Control (<i>n</i> = 44)
Mean Age	15.9 years	15.6 years
Gender	22 Males; 19 Females	25 Males; 16 Females; 1 other
Ethnicity	75% Black	68% Black
Mean # of Arrests	.4 (<i>SD</i> = .99)	.3 (<i>SD</i> = 1.02)
Free Lunch	84%	84%

An a priori power analysis was conducted to estimate the necessary sample size. However, since no other similar published studies existed for comparison it was difficult to estimate the likely effect size. Using Power and Precision statistical software, given a two-tailed test with a .30 effect size and 80% power, it was estimated that 175 total participants would be needed across both the experimental and control groups. After spending two years actively recruiting and collecting data and reaching a total of 87 participants, the mean scores were examined in order to determine if further data collection was necessary. This test revealed an effect size much larger than the a priori estimate so data collection was ended at this point. Nonetheless, as discussed later, a larger study with greater statistical power is warranted, especially given the positive findings below.

Statistical Analyses

Multiple *t* tests were used to compare the experimental and control group on the main outcome variable – the scores on each survey. Since this research used random assignment to experimental and control conditions, independent samples *t* tests were used to assess the difference in means. First, an independent *t* test was run to compare the experimental group to the control group on Survey 1, to ensure there was no significant difference at the baseline. Second, a *t* test was run between the control group scores on Survey 1 and the scores on Survey 2 (all experimental group). Finally, a *t* test was run comparing the mean scores on Survey 3. To account for the count nature of this data, a negative binomial regression and Poisson distribution of the outcome measure by group

(experiment and control) was conducted. In addition, a linear regression of the outcome measure for Survey 1 and 2 by group with a term for study site was conducted. And finally, a mixed model regression analysis was run using the outcome data from Survey 1 and 3, with terms for group (experiment and control), time and study site. These results will be presented in Chapter Four.

Potential Limitations

One of the issues that can arise in an experiment like this is a violation of the Stable Unit Treatment Value Assumption (SUTVA) (Sampson, 2010). This could occur if members of the control group were exposed to, affected by, or introduced to the treatment (educational video) during the one-month follow-up period. This exposure would lead to a violation of SUTVA because the measured the treatment effect would not be limited to the experimental group, it would crossover and contaminate the control group. SUTVA was not an issue during the administration of Surveys 1 and 2 because the participants completed these surveys in one sitting. Specifically, all members of both groups completed Survey 1 immediately following their check-in and were not permitted to engage in conversation with others. Following this, members of the control group exited the room and members of the experimental group immediately proceeded to watch the video, to complete Survey 2 and then to exit the room. Thus, there was no opportunity for treatment contamination during this portion of the experiment.

However, treatment contamination may have occurred during the one-month follow-up period before Survey 3. A number of steps were taken to reduce the likelihood

of spillover effects. Both the experimental and control groups were told not to discuss the experiment or video with anyone until after the end of the experiment. Questions were included in Survey 3 with the purpose of discovering whether or not participants had discussed the video with others. Further, as mentioned above, the treatment video was not available to any participants during the follow-up period. A paired t test comparing the control group's Survey 1 scores to their Survey 3 scores ($n = 21$) revealed no significant difference (Survey 1 mean = 16.29 (SD = .80), Survey 3 mean = 16.95 (SD = .65)), $t = .77, p > .10$ (two-tailed). These results suggest that no significant treatment spillover occurred.

CHAPTER FOUR: RESULTS

This study found evidence supporting two of the three hypotheses. This chapter will present the results from the *Miranda* recall question, *t* tests, regressions, and bivariate correlations.

Contact with criminal justice system

A total of 85 participants completed Survey 1. As discussed in the methods chapter, Survey 1 began with demographic questions, as well as questions about contact with the criminal justice system. Table 1 summarizes the demographic characteristics of the experimental and control groups. Out of the entire sample, 85% of participants reported never being arrested with only 14% reporting one or more arrests. Similarly, 86% reported never being read their *Miranda* rights by police while 12% reported being read *Miranda* warnings in the past. 85% reported never spending time in a detention facility, with 13% reporting they had spent time in a detention facility. This is in contrast to many other studies in the area of *Miranda* comprehension, which report higher rates of police contact (e.g. Redlich et al., p. 399 (2003) reporting 68% of the sample had “police contact as suspected criminals.”). Most existing studies use detained juveniles as the sample, so they would naturally have more contact with police (e.g. Rogers et al. (2016)).

***Miranda* Recall**

All three surveys contained the *Miranda* recall question (“Please write down what you think a *Miranda* warning is. Please write any words or parts of a *Miranda* warning that you can remember”). As described previously, the four main elements of a *Miranda* warning are: 1. the right to silence, 2. the dangers associated with giving a statement, 3. the right to an attorney, and 4. the fact that an attorney can be provided free of charge (384 U.S. 436). In the *Miranda* decision, the Court wrote that custodial statements may not be admitted in trial unless a warning with these four elements was given to the suspect. The Court also wrote that suspects must be given the opportunity to exercise their rights throughout the interrogation (*Miranda* p. 479). Rogers et al (2016) describe this ongoing opportunity to exercise rights as a fifth element of *Miranda* warnings. They list this fifth element because the Supreme Court said in the *Miranda* decision that the “opportunity to exercise these rights must be afforded to him throughout the interrogation” (p. 479). This research did not code for the fifth element because not all police localities verbally advise of this element and because the Court language does not require a direct advisement of this element (Smalarz et al., 2016; *Miranda*, p. 444). Smalarz, Scherr and Kassin (2016) write that the first four elements are standard across all police jurisdictions while the fifth element is not essential and is inconsistently applied across police jurisdictions in the United States.

For this research, the *Miranda* recall responses were coded with a 1, 2, 3, or 4 depending on how many of the four main elements of the *Miranda* warning the participant described. If the participant recalled one element, the response was coded 1,

if they recalled all four, then it was coded 4. Table 2 contains percentages of scores received for the *Miranda* recall question on each survey.

As discussed in the methods chapter, Survey 1 was provided to participants directly following registration and prior to any interaction with the educational video utilized in this experiment. After the demographic questions, Survey 1 asked the *Miranda* recall question described above. In response, 62% of participants did not recall any of the four main elements. 12% of participants recalled one element while 15% recalled two elements. 5% of participants recalled three elements and 6% recalled all four elements.

After watching the seven-minute educational video created for this experiment, the experimental group completed Survey 2, which began with a second *Miranda* recall question using the same language described above. In response to this recall question, 16% of participants could now recall one element of the *Miranda* warnings, 37% of participants could recall two elements, 7% could recall three elements and 7% could recall four elements. On the Survey 2 recall question, 33% of participants could not recall any elements of *Miranda* warnings.

After a one-month period, during which time none of the participants had access to the educational video, participants were asked to return to take Survey 3. As discussed previously, only 39 participants (from the experimental and control groups) returned to take this final survey. On Survey 3's *Miranda* recall question, 33% of the experimental group and 38% of the control group could not recall any elements of the *Miranda* warning. 22% of the experimental group – compared to 19% of the control group – could recall one element. 33% of the experimental group – compared to 19% of the control

group – could recall two elements. None of the experimental group – compared to 5% of the control group – could recall three elements. While 11% of the experimental group – compared to 19% of the control group – could recall all four elements on Survey 3.

Table 2. *Miranda* recall results, percentage receiving each score.

Elements Recalled	0	1	2	3	4
Survey 1 (n=85)	62%	12%	15%	5%	6%
Survey 2 (n=43)	33%	16%	37%	7%	7%
Survey 3					
Experimental (n =18)	33%	22%	33%	0%	11%
Control (n=21)	38%	19%	19%	5%	19%

***Miranda* Misconceptions**

All three surveys contained the same 23 questions aimed at assessing common and serious misconceptions of the rights underlying *Miranda* warnings. As discussed earlier, these questions were derived from the Juvenile *Miranda* Quiz (Rogers 2010), which is an unpublished measure. Due to copyright restrictions, these questions may not be reproduced here or attached as an appendix. However, each question has been abbreviated below in order to allow readers to understand the import of the results reported in this chapter. Additionally, Table 5 (below) contains the percentages of error attached to each question for each wave of the survey. Each question is abbreviated in order to comply with copyright law. The items from Table 5 that are discussed here are highlighted in bold on the table.

One of the most common misconceptions on Survey 1 was the belief that it is illegal for police to lie to suspects, 61% of participants incorrectly believed this to be true. Similarly, 72% incorrectly thought that police are not allowed to accuse suspects of crimes that have not occurred. 26% of participants believed that (even if they had a lawyer) they would not be able to speak privately with their counsel. 48% further incorrectly believed that communicating to a police officer “I might want a lawyer” is the equivalent of stating “I want a lawyer.” Another serious misconception was the belief that lawyers hired by the court must tell the judge if they know a client is guilty – 55% of participants thought this to be true. And finally, 39% believed that they “should” talk to police because they are authority figures. Figure 1 depicts the distribution of scores on Survey 1.

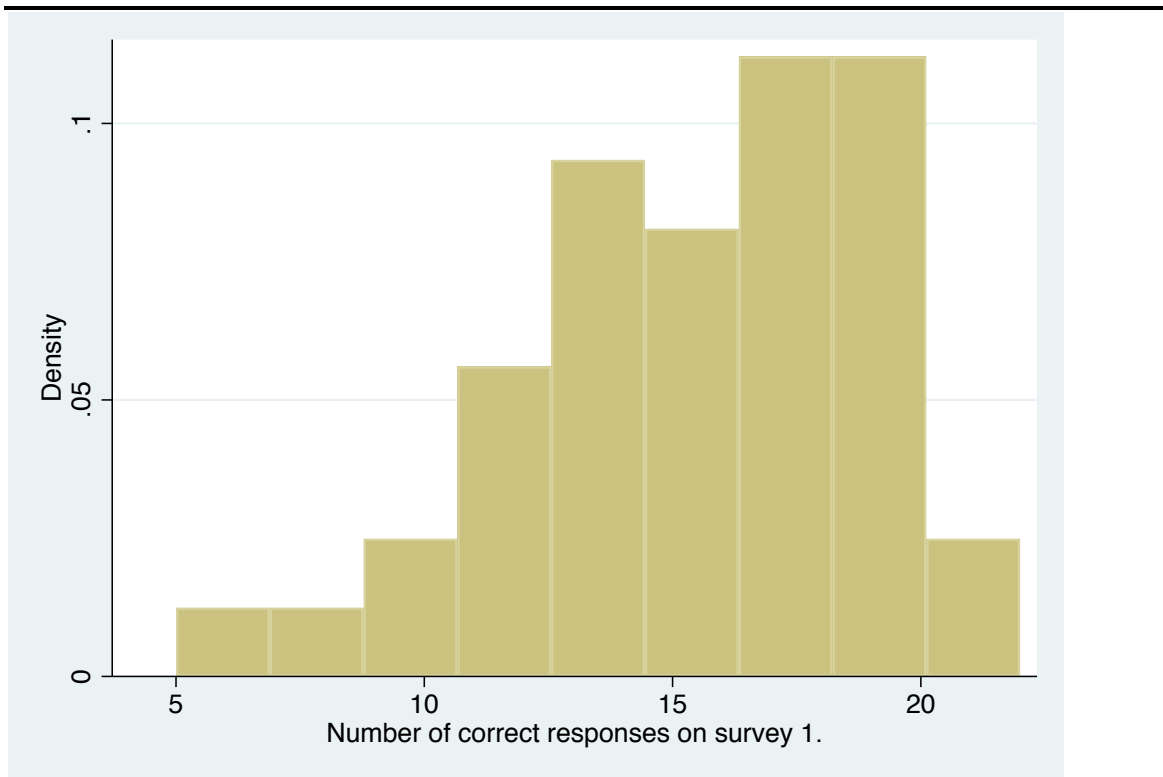


Figure 1. Distribution of scores on Survey 1

A t test was used to ensure there was no difference between the experimental and control group at baseline (Survey 1). An independent samples t test found no significant difference in Survey 1 scores between the experimental and control groups. The mean score for the experimental group was 15.67 (standard deviation (SD) = .62) and the mean score for the control group was 15.57 (SD = .53), $t = .13$, $p > .10$ (two-tailed). This confirms that randomization worked with respect to the participants' baseline understanding and misconceptions of the *Miranda* warnings.

The experimental group completed Survey 1, then immediately watched the educational video and completed Survey 2 directly following the end of the video. On

Survey 2, only 35% of the experimental group still (incorrectly) thought it to be illegal for police to lie to suspects and only 30% still (incorrectly) thought cops could not accuse suspects of crimes that did not happen. This is much lower than the percentages that held this misconception prior to the educational video – 61% and 72% respectively. A full 79% now understood they would be able to speak privately with their attorney prior to police questioning (compared to only 26% on Survey 1). And 70% of participants further understood that articulating “I might want an attorney” and “I want an attorney” are not the same in an interrogation context. 72% now responded correctly that court-appointed lawyers are not required to tell the judge if their client is guilty. And finally, following the viewing of the video, only 19% still believed they should talk to police because they are the authorities (compared to 39% on Survey 1). Figure 2 shows the overall distribution of scores on Survey 2, revealing a pattern of greater numbers of correct responses and generally higher scores than those from Survey 1.

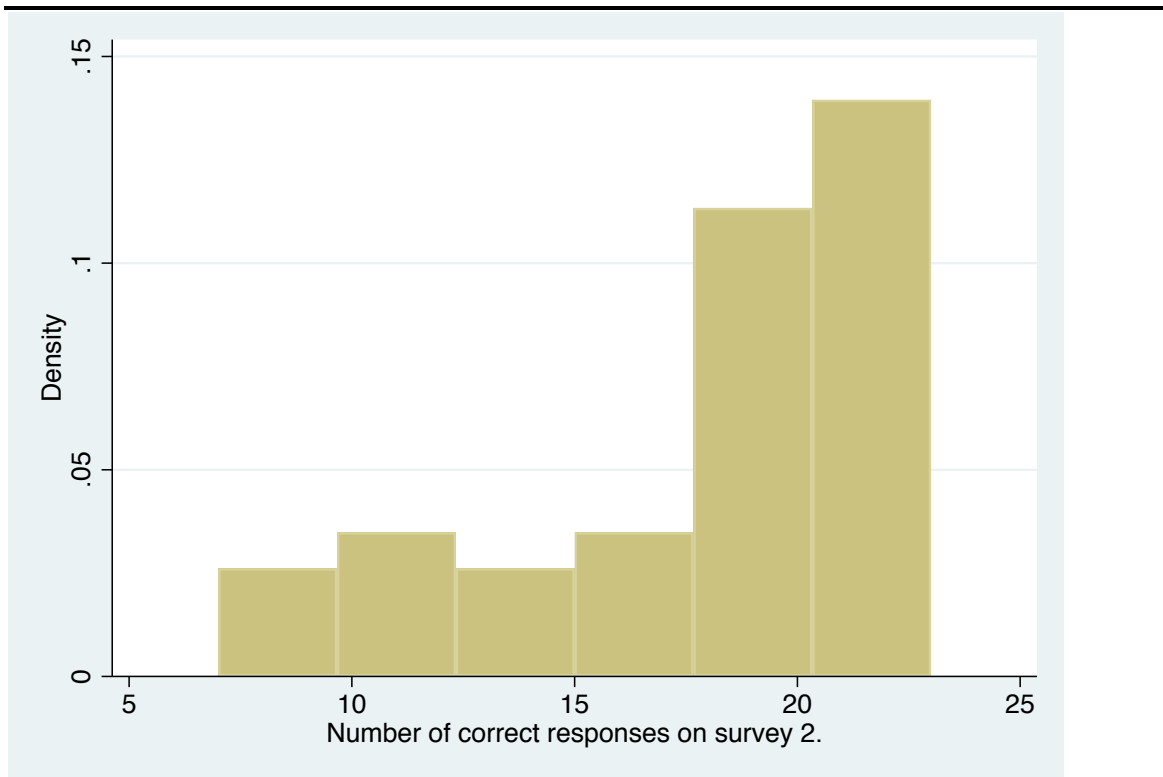


Figure 2. Distribution of scores on Survey 2

Looking at the means of the scores of the two groups we can see that the treatment had a meaningful impact on the outcomes. The mean for the experimental group (Survey 2) was 18.19 (SD =.70), while the mean score for the control group was 15.57 (SD = .53). The standardized difference in the scores (Cohen's *d*) was .64, which is often defined as a moderate to large difference (Cohen, 1977), but can be seen as a strong effect relative to other outcomes in criminology (Nelson et al., 2015).

In order to control for the design of the study, in estimating statistical significance I calculated a multiple regression model including treatment and study site. As is

apparent from Table 3 the effect of treatment is significant at greater than the .01 level.² It is also interesting to note that site variability was significant. This means that the study sites account for some of the variability in the overall significant outcome. While each study site showed a significant difference after treatment, this model shows there were differences in significance between sites with study site four having the largest impact on the outcome variable.

Table 3. Effect of Treatment and Study Site on Outcome.

Outcome	Coef.	Std. Err.	t	<i>p</i>
Site				
2	3.143	.989	3.18	0.002
3	3.563	1.27	2.80	0.006
4	4.244	1.17	3.62	0.001
Treatment	2.735	.815	3.36	0.001
Constant	13.297	.791	16.81	0.000
R-squared = .27 F (4, 80) = 7.27 <i>p</i> = 0.000				

After a one-month period, during which no participants had access to the educational video, participants were invited to return and take the final survey – Survey 3. Only 18 participants from the experimental group and 21 from the control group returned and completed Survey 3. Participants who did not return came fairly evenly from the experimental and control group. The first study-site lost the largest proportion of participants (27 out of 33 did not return for Survey 3) while the second study-site lost the

² While the data do not suggest strong problems of skewing or dispersion, I also ran count models to assess significance. Using a negative binomial model or a Poisson regression model the results are similar to those of the linear regression, with treatment significant at greater than .01.

smallest proportion (7 out of 26 did not return). Study-sites three and four lost 4 out of 12 and 10 out of 16 respectively. The first study site was a basketball camp with youth from a much larger geographic area that had to return to another school over the summer to take Survey 3, in contrast to the other sites where participants were students who returned to the same schools and classrooms during the school year. Table 4 provides more information about the participants who did not return to take Survey 3.

There was a positive difference between the experimental and control groups' mean scores on Survey 3. The experimental group's ($n = 18$) mean score was 17.78 ($SD = .66$) and the control group's ($n = 21$) was 16.95 ($SD = .65$). However the outcomes were not statistically significant.³ At the same time, the differences as measured by Cohen's d were meaningful, with a d value of .29. This suggests the importance of replicating this study with a large sample.

³ Binomial and Poisson regressions were also conducted and yielded similar results. For this analysis, I ran a mixed model regression with robust standard errors, in which the outcome (Y) was all survey scores from Time 1 (control and experimental) and Time 3 (control and experimental). The model included time, treatment, and a time treatment interaction (which is the measure of difference in difference change over time). The treatment by time interaction was not statistically significant. The models are reported in Appendix E.

Table 4. Participants Lost to Attrition.

Attrition Survey 3	Sex (M/F/other)	Age (mean)	Group (Tx/Cont)	Survey 1 (mean score)	Survey 2 (mean score)
Did Not Return for Survey 3 (n=46)	(30/14/0)	15.2	(25/23)	15.1	17.0
Returned for Survey 3 (n=39)	(17/21/1)	16.4	(18/21)	16.3	19.8

The percentages of error on individual questions on Survey 3 reveal some positive differences between the experimental and control groups. Only 33% of the experimental group (incorrectly) thought it to be illegal for police to lie to suspects, compared to 52% of the control group. 56% of the experimental group (incorrectly) responded that police cannot accuse suspects of crimes that did not happen, compared to 76% of the control group. 67% of the experimental group and 76% of the control group correctly indicated they would be able to speak privately with an attorney before interrogation. 67% of the experimental group correctly responded that “I might want an attorney” and “I want an attorney” are not the same, compared to 48% of the control group. 83% of the experimental group correctly responded that their lawyer does not tell the judge if they are guilty, compared to 71% of the control group. And finally, 83% of the experimental group and 67% of the control group responded that they should not talk to police just because they are authority figures. These results show a pattern of the experimental group – who watched the video – scoring with lower percentages of error on the survey questions designed to measure misconceptions about *Miranda* warnings and the underlying rights. Figure 3 shows the distribution of scores on Survey 3, revealing a

pattern of greater numbers of correct responses and generally higher scores than those from Survey 1.

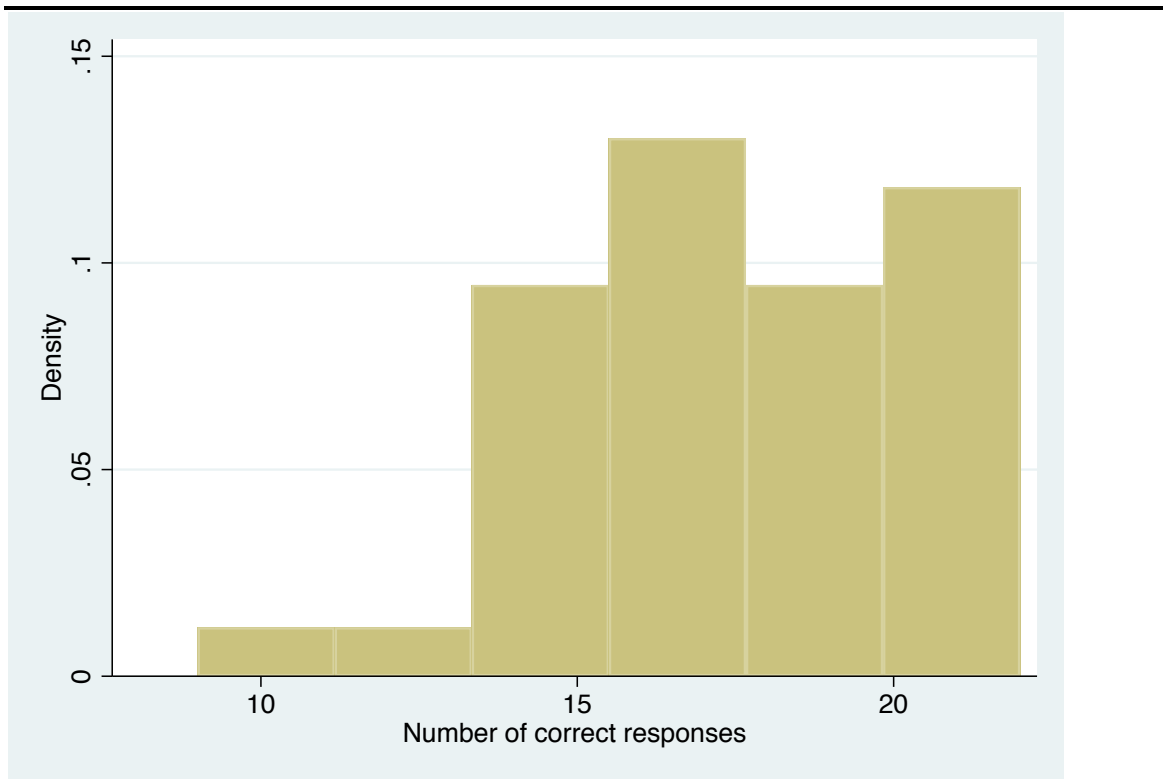


Figure 3. Distribution of scores on Survey 3

Table 5. Percentage of error on individual survey questions

Abbreviated Survey Questions	Survey 1 (n=85)	Survey 2 (n=43)	Survey 3 (tx / cont)
Questions about the right to silence and consequences of speaking:			
Right to silence means silence cannot be used against you	28%	12%	17 / 24 %
<i>Miranda</i> rights apply to guilty people only	13%	21%	22 / 19 %
You can ask for things to be off the record and they won't be used in trial	46%	33%	56 / 24 %
If you talk, everything you say will be used to prove you did something wrong	31%	9%	17 / 43 %
If you remain silent, your silence will be used as evidence of guilt	14%	14%	22 / 14 %
If you stay silent, that will not be used to prove you did something wrong	36%	33%	22 / 29 %
Questions about the right to a lawyer:			
Asking for a lawyer stops questioning	32%	19%	22 / 19 %
If you ask for lawyer, cops can question until lawyer arrives	32%	19%	39 / 24 %
If you don't have money there is no reason to ask for a lawyer	16%	12%	11 / 5 %
If you have a lawyer, you won't be able to talk before questioning	26%	21%	33 / 24%
"I want a lawyer" means the same thing as "I might want a lawyer"	48%	28%	33 / 52 %
A lawyer can help reduce the chance of being tricked	26%	12%	5 / 19 %

Table 5. (Continued)

Abbreviated Survey Questions	Survey 1	Survey 2	Survey 3
If the court gives you a lawyer, your family will end up paying	21%	9%	17 / 14 %
Your lawyer must tell the judge if you are guilty	21%	23%	17 / 29 %
Lawyers hired by the court must tell the judge everything	55%	26%	28 / 48 %
You can have a lawyer in the room during questioning by police	11%	12%	0 / 10 %
Your lawyer is on the same side as police	14%	7%	0 / 10 %
Questions about police behavior:			
It is illegal for cops to lie about witnesses or evidence	61%	35%	33 / 52 %
Cops can accuse you of crimes that never took place	72%	30%	56 / 76 %
If you need advice, it is better to ask police	18%	19%	11 / 5 %
You should talk to cops	39%	19%	17 / 33 %
Questions about the ongoing nature of rights:			
The police can change their minds about your rights	21%	12%	11 / 0 %
If you confess, you can still ask for a lawyer days later	13%	19%	28 / 19 %

Bivariate Correlations

Table 6 shows the correlations between a variety of relevant variables and results from the *Miranda* recall questions. The variables on Table 6 are age, number of reported arrests, the number of reported times the participant was read *Miranda* warnings in the past, the score on the first *Miranda* recall on Survey 1, the Survey 1 score, the score on the second *Miranda* recall on Survey 2, the Survey 2 score, and the score on the third *Miranda* recall on Survey 3 and the Survey 3 score. The strongest correlation was found (0.9325) between the reported number of arrests experienced and reported number of times mirandized in the past; this is to be expected since suspects are read *Miranda* warnings after being arrested.

Table 6. Correlation of Variables

	Age	Arrests	Mirandi- zed	Recall- 1	Survey -1	Recall- 2	Survey -2	Recall- 3	Survey- 3
Age	1.0000								
Arrests	0.1644	1.0000							
Mirand- ized	0.0767	0.9325	1.0000						
Recall-1	0.1560	0.0581	0.2529	1.0000					
Survey -1	-0.0269	0.0850	0.1342	0.3808	1.0000				
Recall-2	0.1562	0.1500	0.2681	0.3729	0.4481	1.0000			
Survey-2	0.3137	-0.0360	0.0336	0.1395	0.4935	0.0293	1.0000		
Recall-3	0.3537	0.0398	-0.0279	0.1968	0.5200	0.3735	0.2152	1.0000	
Survey-3	0.2463	-0.0365	0.0341	0.4601	0.6784	0.4614	0.5264	0.1365	1.0000

Past research in this area found age to be an important factor related to youth's understanding of their rights; however, in this study age is slightly negatively correlated with the scores on Survey 1 (-0.0269), suggesting that age was not strongly correlated with performance on Survey 1 before any exposure to the educational video. In contrast, age was positively correlated with the scores on Survey 2 (0.3137) and Survey 3 (0.2463), suggesting that older participants learned more from the educational video compared to younger participants and subsequently scored better on Surveys 2 and 3 when compared to younger participants. Figure 4 shows the distribution of the ages of participants in this study.

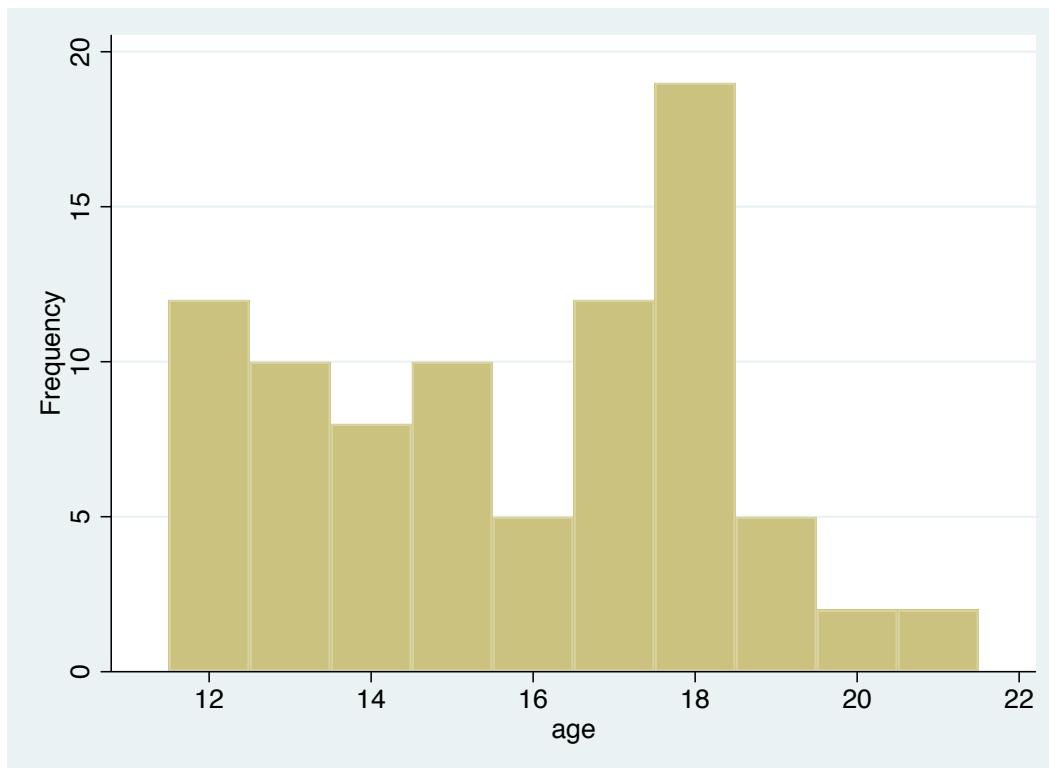


Figure 4. Distribution of Ages of Participants

Scores on the first *Miranda* recall question (administered directly following registration and the demographics questions) were positively correlated to all other scores with the stronger correlation to scores on Survey 1 (0.3808) and scores on Survey 3 (0.4601). This means that being able to recall more elements of a *Miranda* warning at the outset of the study was correlated with higher scores (and fewer *Miranda* misconceptions) on Surveys 1 and 3. There were even stronger positive correlations between Survey 1 scores and the other scores, with the highest being the *Miranda* recall on Survey 3 (0.5200) and scores on Survey 3 (0.6784). This means that having higher scores on Survey 1 at the outset of the study (fewer misconceptions about *Miranda*) was correlated with being able to recall more elements of a *Miranda* warning at the one-month follow-up and correlated with higher scores on the last survey. This suggests that participants who had a greater understanding of their rights at the outset of the study were more likely to perform better in the subsequent surveys during the study.

Police interaction during study and video feedback

As described in the methods chapter, all participants were invited to return approximately one month following the first wave of the study after they responded to Survey 1. Of the original 85 participants, 39 returned to take Survey 3. At the end of Survey 3, participants answered additional questions regarding any arrests or exposure to *Miranda* warnings since Survey 1 and their thoughts on the video. These questions are described in detail in the methods chapter.

Two participants, both in the experimental group, responded yes to the question “[s]ince the first time you took this survey, has a police officer read the *Miranda* warnings to you?” (yes/no) and they both circled “1-3” in response to the follow-up question, “[i]f yes, how many times?” (1-3, 4-6, 7-10, 10+). Additionally, both participants reported that they “told police I wished to remain silent or asked for an attorney” in response to the question asking “how did you respond.”

Survey 3 concluded with three yes-no questions (described in detail in the methods chapter) about participants’ opinions of the educational video used in this study. They were asked “[d]o you think you learned something about your rights by watching the training video?” and 88% responded yes. They were asked “[d]o you think you will watch the video again in the future?” with 54% responding yes. The final question was “[w]ould you recommend watching this video to your friends and/or family?” and 83% of participants responded yes. These results suggest that many participants think they learned about their rights from the educational video used in this study and that they believe it is something important for others to watch.

Conclusion

This study found evidence supporting two of the three hypotheses. First, juvenile understanding of *Miranda* warnings was significantly higher than the control group after watching the video-based education program. Stated another way, the experimental group had significantly fewer serious misconceptions about their *Miranda* rights after watching the (treatment) educational video. Second, the improvement in understanding did degrade

over the one-month follow-up period as hypothesized. However the experimental group still performed better than the control group on Survey 3 even though the results were not significant. And finally, although there was not enough data for statistical analysis, there was some evidence of a real-world impact on police interaction. Specifically, two experimental group participants reported being read their *Miranda* rights by police during the study period and both reported exercising their rights and not giving any statement to police.

CHAPTER FIVE: DISCUSSION

It has been over 50 years since the *Miranda* decision outlined the *Miranda* warnings and advanced the theory that they would be “adequate protective devices...to dispel the compulsion inherent in custodial surroundings” (*Miranda*, p. 458). Research published over the past four decades suggests that the theory introduced in the *Miranda* decision is not valid. Over one million juveniles are arrested in the U.S. every year, including 65,000 who are under the age of twelve (Rogers et al., 2016 citing Federal Bureau of Investigation, 2013). More than 300,000 juveniles (many of whom may not understand their *Miranda* rights) waive those rights every year without the presence of counsel (Sharf et al. 2017). Moreover, as discussed above, existing law allows police to treat juveniles in the same manner that they treat adults during interrogations – they can merely read the warnings and are not obligated to provide any additional explanation or assistance to children (Rogers, 2008). Further, in many states police are not even required to notify parents when they take a child into custody. This legal theory fails our youth and undermines a fair and just legal system.

Scholars in this area have identified 945 different *Miranda* warnings across 638 jurisdictions, ranging from 21 to 408 words and with reading levels from second grade to college level (Rogers et al., 2008 and Rogers, 2008). Many scholars have recommended juvenile specific *Miranda* warnings in order to partially combat this problem. However,

rather than ameliorating it, recent research has found that juvenile specific warnings are longer and in many cases are written at higher reading levels than are warnings designed for adults (Rogers et al., 20012 and 2014). Decades of research confirm that youth (and many adults) have serious misconceptions about *Miranda* warnings and the underlying rights upon which they are based (Grisso, 1980; Rogers, 2008; and Viljoen et al. 2007). Moreover it is clear that a mere recitation of the *Miranda* warnings does not correct the many serious misconceptions held by most people (Drogin & Rogers, 2015). In fact, research has suggested that most interrogated juveniles waive their rights (over 90%) and provide a statement in less than fifteen minutes (Feld, 2013).

Juveniles are overrepresented in false confessions and highly susceptible to making false confessions (Drizin & Leo, 2004; Scott-Hayward, 2007). The research on false confessions and wrongful convictions highlights some of the serious downstream effects stemming from a failure to fully understand *Miranda* warnings and the underlying rights. The decision to waive 5th and 6th Amendment rights and provide a statement to police has been called “the single most influential factor” leading to conviction and imprisonment (Rogers, 2008 citing Oberlander et al., 2003, p. 335). This is because confessions are seen as very powerful pieces of evidence and because the vast majority of criminal cases are resolved via guilty pleas where motions challenging interrogation tactics are waived. Over 95% of criminal cases are resolved via guilty pleas (Redlich et al. 2018). When a case is resolved via a guilty plea, motions to suppress are waived and these motions are the only mechanism to obtain relief from a violation of *Miranda*. This means that our current criminal system of pleas (instead of trials) leaves the vast majority

of defendants without legal protections from violations of the *Miranda* decision by police. Thus, the fact that most juveniles do not understand the meaning and significance of *Miranda* warnings is a very serious problem in our criminal justice system.

The intent behind this experiment was to create and test a possible solution, namely an educational video that could increase youth understanding of their rights in the context of police interrogations. This experiment tested a seven-minute video designed to teach youth about their 5th and 6th Amendment rights and found significant and positive effects from the video. Specifically, juvenile understanding of *Miranda* warnings was significantly higher than the control group after watching the video-based education program. This means that the experimental group had significantly fewer serious misconceptions about their *Miranda* rights after watching the educational video. The effect size for this result was large for the field of Criminology research, Cohen's $d = .64$. This improvement in understanding did degrade over the one-month follow-up period as hypothesized; this was possibly due to participant attrition. However the experimental group still performed better than the control group on Survey 3 even though the results were not significant. Two participants reported being read their *Miranda* rights by police during the study period; both were in the experimental group and both reported exercising their rights and not giving any statement to police. This research contributed to the area of *Miranda* research in four ways that will be discussed in detail below.

First, this experiment confirmed many of the findings from earlier studies about critical *Miranda* misconceptions in a population of inner-city youth not currently involved in the criminal justice system. As discussed in prior chapters, these

misconceptions include the belief that a judge can punish defendants for invoking their right to silence, that the right to an attorney does not include consultation prior to an interrogation, and the belief that the role of police is not adversarial during interrogations (Grisso, 1980; Rogers, 2014). On Survey 1, the baseline survey of experimental and control participants, 61% of participants believed that police are not allowed to lie to suspects and 72% believed that police are not allowed to accuse suspects of crimes that did not occur. These are critical misconceptions because one common interrogation tactic used by police is to confront suspects with evidence that does not exist (Leo, 1996; Kassin et al., 2010; Feld, 2013). If juveniles believe it is illegal for police to lie during interrogations, they will not question what officers tell them and the coercive effects of the interrogation could be more difficult to overcome. Police may tell young suspects that they will get home faster if they give a statement or that remaining silent will make the situation worse, and if youth believe police are not allowed to lie they may believe these statements. In the baseline survey, 55% of youth believed that lawyers assigned by the court must tell the judge if their client is guilty. This critical misconception undermines a trusting relationship with defense counsel and could lead to youth believing that requesting an attorney during interrogation is pointless. Even if youth understand they have a right to an attorney, if they do not accurately understand the role of the attorney then their knowledge may not help them.

The second important contribution from this research was identifying a practical and successful method to reduce serious *Miranda* misconceptions in youth. In addition to performing significantly better on the overall survey, many of the critical *Miranda*

misconceptions were reduced after participants watched the educational video, suggesting that a video educational program may be effective in increasing understanding. After watching the video, only 35% of participants still thought it was illegal for police to lie to suspects. Even more importantly, 79% of participants now understood that they could talk to their attorney privately before the interrogation and 74% understood that lawyers assigned by the court do not tell the judge if their client is guilty. The misconceptions about the role of an attorney are arguably some of the most damaging because they could lead youth to believe that exercising their rights would not help them and would lead to the same result as talking to police.

The third way this research contributed to the field of *Miranda* research is by identifying a possible way to improve *Miranda* recall in youth. The results from the *Miranda* recall question suggest that watching this educational video helps improve recall; on Survey 1 67% of respondents could not recall any element of a *Miranda* warnings, but after watching the video only 33% could not recall any element.

The final contribution from this research is the creation of a practical and successful method to teach youth the meaning and significance of *Miranda* warnings and the underlying constitutional rights. Over the past four decades of *Miranda* research scholars have made many recommendations such as, simplifying *Miranda* warnings, videotaping interrogations, requiring parental notification, or excluding statements from juveniles under the age of fifteen (Grisso, 1980; the American Bar Association; Redlich et al, 2003; Rogers et al. 2012). Indeed, Rogers et al. (2012) closed their article by saying research is urgently needed to identify how to convey *Miranda* warnings in an

understandable way that explains the meanings as well as the significance of waiving 5th and 6th Amendment rights. All of these recommendations by scholars require police to provide these protective measures to suspects during the innately adversarial process of interrogation. This is a serious conflict in the role of the police that could further confuse juvenile suspects. Moreover, police officers are trained to use deception and to downplay the importance of *Miranda* warnings in order to obtain a statement from suspects (Feld, 2013). Additionally, in the case of juveniles, given their particular stage of brain development, the inherent stressfulness of a police interrogation and the fact that the police officer is an authority figure who does not want the suspect to invoke their rights, some of these proposed solutions may not adequately resolve this problem.

The educational video tested in this research may be one method to ameliorate this problem and to convey *Miranda* warnings and their significance in a comprehensible manner. If police departments were required to play a short seven-minute video prior to juvenile interrogation or reading *Miranda* warnings, juveniles might better understand their rights and the magnitude of their decision. The results from this study suggest that providing this educational video to youth, before they are arrested or interrogated by police, may help them understand their rights during a stressful interrogation. Given the apparent scope of the problem, this research provides a possible and practical solution to adequately inform juvenile suspects of their rights prior to interrogation.

This research contributes to the field of Criminology in at least two ways. First, by creating and testing a low-cost method to improve a complex process in the criminal justice system that plays a role in crime control (i.e. police stops and interrogations). And

second, these results suggest that similar programs could be developed to address other topics in Criminology, for example implicit bias training for police. This research suggests that low cost video-based education programs can be effective in educating citizens or police about complex legal processes in the field of Criminology and subsequently improve those processes. This research also highlights the importance of understanding the law, especially constitutional law, and how it relates to topics within Criminology. In order to propose realistic solutions, scholars must understand the details of relevant case law and have a more in-depth understanding of legal definitions and theories.

Limitations of the Research

This study has a few limitations that should be acknowledged. One limitation is the low response rate for the final survey; only 39 participants completed Survey 3. This is a problem common to many studies, particularly in regards to those examining *Miranda* warnings. Although each participant was paid \$10 for completing Survey 3, this compensation was not enough to encourage most participants to return. Rogers (2008) found that most people are overconfident in their self-assessments of their understanding of *Miranda* warnings, a finding that may partly explain why this occurred. If people generally believe they already understand the *Miranda* warnings, they may be less likely to participate in a study or watch an educational video. Table 4 in the Results chapter describes the participants who did not return and shows that participants were lost fairly equally from the experimental and control conditions. Many participants in this study had

problems in the past with truancy, which could make them more likely to not attend school everyday and therefore miss the follow-up day for this experiment.

A second common critique of randomized experiments is generalizability. One of the ways this study attempted to address generalizability and expand participants was to use four separate study sites from two different large cities in the United States. This study also expanded beyond the participants usually used in *Miranda* research (i.e. detained youth) by recruiting participants from schools and camps who were not detained. Thus the results from this study are more generalizable to youth living in large urban areas than some of the past research in this area that uses samples of detained youth. Despite these steps taken to increase generalizability, it is still important to repeat this study with even more participants.

A final limitation is that we do not know about the respondents' standardized test scores in reading and math. If a student's scores were very low, this might have a negative effect on their ability to learn from the educational video. Although efforts were made to select language that would promote understanding, comprehension is always a concern in educational videos. Theoretically, random assignment should evenly distribute differences in reading ability, but there may still be differences in comprehension between the experimental and control group that remain undetected despite best efforts to uncover them.

Future Research

Scholars have worked for decades producing research that clearly identifies and describes a problem in our criminal justice system, specifically that juveniles do not understand *Miranda* warnings or the underlying rights. This problem is serious because it greatly impacts guilty pleas, convictions and the risk of false convictions. Police tactics are very successful at obtaining incriminating statements; past research has found that 76% of those who spoke with police ultimately provided incriminating statements (Leo, 1996). Leo also found that suspects who waived their *Miranda* rights were twice as likely to agree to a plea bargain, and 98% of plea bargains resulted in a conviction (Leo, 1996). Thus, the decision to waive *Miranda* rights has significant downstream effects on case resolution and conviction. In fact, Drizin and Leo (2004) argue that juries will convict a defendant based solely on a confession, without any additional evidence. Drizin and Leo (2004) report that false confessions are the main cause of wrongful convictions in between 14 to 25% of cases. This means that the risk of false confession may translate into very significant downstream consequences for juvenile suspects. Despite the decades of recommendations from scholars, the fact remains that state legislatures have passed few protections and this problem continues in the United States.

Future research should continue to test solutions like the educational video in this study, or take the results from this research to improve upon the educational video in this study. One way to further test this video would be to show it to suspects prior to simulated interrogations to see if it affects how many participants agree to waive their rights after hearing *Miranda* warnings. Another way to further test this educational video

would be to follow a much larger sample of youth and ask them questions about any real-world interactions with police and their responses. Future research could attempt to discover whether the improved comprehension found in this study will lead to significant changes in real-world interactions with police. In other words, will youth who watched the educational video be less likely to waive their rights and give statements to police after hearing *Miranda* warnings? In this study, two participants (both from the experimental group) were arrested and Mirandized by police between phases 2 and 3 of the study, and they both reported exercising their rights and refusing to give statements to police. Further research should focus on this question specifically, perhaps with mock police interactions or more ideally with a funded large-scale study that can follow more participants over a much longer period of time so that more data on reactions to police interrogations may be collected.

Another important area of research related to *Miranda* comprehension and solutions pertains to the new law passed in California – Senate Bill 395 Chapter 681 (2017). This law disallows the interrogation of juvenile suspects under the age of 15 and bars them from waiving their rights until they have spoken to an attorney in person, via phone or via videoconference. Future researchers should examine the extent to which this new law helps improve *Miranda* rights comprehension and reduces false confessions and convictions. It would also be interesting to study the youth who are protected under this new law in California to see if there are any wider or lasting benefits for them after they outgrow the protection. If youth under the age of 15 have the opportunity to speak with an attorney before interrogation, they may learn about the importance of exercising their

rights and this may have a lasting protective effect for any interrogations that occur in the future.

CHAPTER SIX: CONCLUSION

Public defenders often find themselves teaching clients after-the-fact about the importance of remaining silent and exercising their rights when interrogated by police. This author's experience as a public defender, coupled with Chapter 2's review of the research conducted over the past decades by Grisso, Rogers and many others, led to the idea for this dissertation. Providing education about the *Miranda* warnings and the underlying rights before youth are faced with an interrogation could help them understand the consequences and risks of talking to police. One solution to combat this problem is to create a free, widely accessible, education program for youth to learn about the *Miranda* warnings and the significance of the underlying rights before they are arrested and interrogated by police. The challenges of this approach, however, were to create a video that youth want to watch while simultaneously creating a video that would be effective in reducing misconceptions and increasing comprehension.

On the final survey, 88% of participants indicated that they thought they had learned something about their rights from watching the video and 83% said that they would recommend the video to other people. After the completion of the research, the author emailed many contacts made during the recruitment process to let them know the research was complete and the video was available online. Many youth groups, schools and clubs have expressed interest in showing this video to their students and the video

currently has over 1500 views online. Following the research, the author has attempted to facilitate this by creating a postcard listing the most important points from the video and containing an online link to the video. Copies of the postcard have been mailed to groups who expressed interest.

Some scholars have proposed a “professional neglect hypothesis,” arguing that attorneys and judges do not consider *Miranda* impairment in most criminal cases or challenge the admission of incriminating statements when they should be doing so (Rogers, 2011). Proponents of this hypothesis cite the low number of defendants referred to psychologists to assess *Miranda* abilities as evidence of professional neglect by attorneys (Rogers, 2011). One study surveyed American Psychological Association (APA) members and 401 psychologists responded that they conducted an average of 6.9 *Miranda* waiver evaluations over the past year (Ryba et al. 2007). The numbers from that one study were extrapolated to support the argument that too few *Miranda* assessments are conducted every year (Rogers, 2011).

These scholars say that legal professionals do not challenge the admission of statements based on *Miranda* because they assume defendants already know the warnings (Rogers, 2011). Rogers has called for a consensus on what would constitute a “breach of professional responsibility” on the part of attorneys, hypothetically assuming an attorney could spend decades in criminal defense and never raise an objection to a client’s waiver of *Miranda* rights (Rogers, 2011). This is poorly placed blame on legal professionals that ignores the complex and often unjust processes in our current criminal justice systems.

Assuming that the extrapolations from one survey (of 401 APA members) are correct, the low number of *Miranda* comprehension assessments conducted is more likely due to two reasons (not addressed by scholars proposing the neglect hypothesis): the high costs of psychological assessments and the complex pretrial decision-making process related to the trial penalty. An online search for expert psychological *Miranda* assessment reveals costs for clinical interviews of \$200 per hour, court preparation costs of \$200 per hour, court testimony costs of \$250 per hour, and travel costs of \$150 per hour plus expenses (Psycholegal Assessments, 2020). As a public defender, the author worked with a well-regarded psychiatrist who charged \$500 per hour for clinical assessments, with higher rates for court testimony (including the hours waiting to testify). Many defendants are unable to afford these types of fees and funding for public defenders is notoriously low.

There is substantial literature describing the trial penalty and its impacts that will not be fully explained here; however it deserves a brief mention because this neglect hypothesis alleges serious professional misconduct across a large segment of attorneys and may be detrimental to professional collaboration. The trial penalty is a concept that describes how criminal defendants are punished with more severe sentences for exercising their right to trial, compared to less severe sentences for the same crimes when defendants elect to plead guilty under the terms of a plea bargain (NACDL Report, 2018). Sentencing guidelines and mandatory minimum sentences give prosecutors and judges the ability to impose more severe sentences after a defendant exercises their right to trial and loses. Thirty years ago 20% of criminal cases resolved via a trial, compared to only

3% today (NACDL Report, 2018). Over 95% of criminal cases are resolved via guilty pleas (Redlich et al., 2018). Prosecutors write the terms of plea-bargains and offer defendants lower sentencing ranges, or less severe charges, in exchange for pleading guilty. This is important to the topic of *Miranda* assessments because when a case is resolved via guilty plea, motions to suppress are waived. A motion to suppress is the only mechanism to obtain relief after a violation of *Miranda*. As described in previous chapters, the Supreme Court held in *Miranda* that the repercussions for violations would be the suppression of statements in court and that is obtained through a motion to suppress. This means that defendants who accept a plea offer and agree to plead guilty waive their right to challenge any issues with their waiver of *Miranda* warnings or their interrogation. And we know that this is the situation most defendants find themselves in since only 3% of cases go to trial.

This means that many defense counsel – especially public defenders who are professionals dedicated to ensuring that everyone has legal representation – must aid their clients in balancing the possibility of winning a *Miranda*-based motion to suppress with the risk of ultimately losing at trial. Even if there are legal objections to the *Miranda* warnings, or evidence of impaired comprehension, it may not be in the defendant’s best interests to proceed to trial and raise those objections. For example, there could be other evidence that would lead to a finding of guilt, or the risk of losing the motion to suppress may be too high for the client to want to decline the plea offer and go to trial. The problem with assuming “professional neglect” in these cases is that it ignores all of the evidence about the existence of a trial penalty. Furthermore, all of the discussions

between defense counsel and client are confidential so it is impossible to know if *Miranda* comprehension issues were in fact discussed. Thus it is unfair to attribute the lack of *Miranda* comprehension assessments or *Miranda*-based motions to suppress solely to defense counsel's neglect when there are a myriad of factors involved in these complex criminal justice processes. The professional neglect hypothesis assumes defense counsel are unaware of or choose to ignore evidence supporting motions to suppress based on *Miranda*, when there is no evidence that this is the case and in fact evidence (e.g. trial penalty research) that other factors are influencing those decisions. This hypothesis also ignores the issue of funding and the potential expense of psychologists if a client's *Miranda* comprehension is at issue.

This research provides promising evidence supporting the effectiveness of a video-based education program to help youth better understand their rights and the roles of attorneys and police before they are stopped or interrogated by police. This educational video could be one tool used to help protect youth from the inherently coercive nature of interrogations. This is an important issue because of how many juveniles are arrested every year in the U.S., the interrogation tactics used by police, and the evidence we have that tells us most youth do not understand their rights even after hearing *Miranda* warnings (Drogin & Rogers, 2015). When decades of research clearly identifies a problem and proposed solutions are not adopted by government actors or have little positive impact, scholars should more readily step into the roll of developing and testing solutions and should work to increase professional collaboration.

APPENDIX A



IRBNet number: 1191864-1

Dear parent/guardian,

In the United States, police can arrest children as young as 10 years old and interrogate them without contacting their parents or giving them child-specific instruction about their rights.

We know from past research that children do not understand their rights when police stop them, or the *Miranda* warnings even though they have heard them before on TV.

Miranda warnings: “you have the right to remain silent, anything you say can be used against you in a court of law, you have the right to an attorney and if you cannot afford one it will be provided to you.”

I am a parent, an attorney, a Marine Corps veteran and now a PhD candidate at George Mason University. For my dissertation research I have designed a study to learn more about how we can help children understand their rights when police stop them and help them understand their rights during police interrogation.

I would really appreciate your child’s participation in this study, which will take a total of approximately 45-55 minutes of their time.

For the study, the participants will answer 33 written questions to understand what they already know about their rights and whether they’ve interacted with police in the past; this will take approximately 15 minutes. Then some

of the children will watch an educational video that is approximately 7 minutes long, followed by a shorter written survey (24 questions).

Some students will not watch this video at the beginning of the study and it is very important they do not see or talk with other participants about what they learned. At the end of the study I will make sure all the participants have access to the educational video.

After 1-2 months I will follow-up with you and your child with a final survey that is 33 written questions and will take approximately 15 minutes. If your child turns in the final survey, he or she will be given \$10 in cash. A small number of participants will be asked to answer 3-4 open-ended questions about their participation at this time.

Your child is invited to take the initial survey on:

What we learn from this study will be used to help other children better understand their rights during interactions with police. We will not identify your child personally in any reports we write about the surveys. It is important for the study that your child not talk about the surveys or the educational video with other children.

If you agree to allow your child to take the surveys and watch the educational video, please review and sign the consent/release form and send it with your child on _____ or follow the directions to email consent on the form. Even if you do allow your child to talk to us, it's OK if he/she refuses to answer some or all of our questions. Whether or not your child participates won't affect your child's grades in school or ability to take part in other activities.

Please contact Kate Doyle Feingold at kdoylefe@gmu.edu if you have any questions about the surveys or the consent form.

Sincerely,

Kate Doyle Feingold

APPENDIX B



Can an educational video help youth understand their rights during interactions with police?

PARENTAL CONSENT FORM

This study is being conducted by Kate Doyle Feingold, J.D., a PhD candidate at George Mason University in Fairfax, Virginia to learn more about how to help children understand their legal rights during interactions with police and how to help them avoid making false confessions. This is an independent study.

Your child's participation in this study is really appreciated. If you agree to allow your child to participate, your child will be asked to answer 33 written questions to understand what they already know about their rights and whether they've interacted with police in the past; this will take approximately 15 minutes.

Then some of the children will watch an educational video that is approximately 7 minutes long, followed by a shorter written survey (24 questions). Some students will not watch this video at the beginning of the study and it is very important they do not see or talk with other participants about what they learned. At the end of the study I will make sure all the participants have access to the educational video.

After 1-2 months I will follow-up with you and your child with a final survey that is 33 written questions and will take approximately 15 minutes. All children who turn-in the final survey will be paid \$10 in cash for their time. A small number of participants will be asked to answer 3-4 questions about their participation at this time, which will take approximately 10 minutes.

Your child's participation is completely voluntary. You may withdraw your child from the study at any time and for any reason. Your child may also refuse to participate or refuse to answer specific questions, even if you agree to let him/her participate. Your child may change his/her mind about participating at any time while taking the survey

and will be free to leave. There are no foreseeable risks for participating in this research. The potential benefits to your child include learning more about their constitutional rights during interactions with police. If your child turns-in the final written survey he or she will be paid \$10 in cash for their time.

The data in this study will be confidential. Any results from the surveys that we discuss in our written reports and presentations will be anonymous. We won't share your child's name or anything else that identifies your child or you. While it is understood that no computer transmission can be perfectly secure, reasonable efforts will be made to protect the confidentiality of your transmission.

This research is being conducted by Kate Doyle Feingold, J.D. at George Mason University. She may be reached at 540.273.5461 or kdoylefe@gmu.edu with any questions or to report a research-related problem. Her faculty advisor is Dr. Linda Merola, J.D., and she may be reached at LMerola@gmu.edu. You may contact the George Mason University Institutional Review Board office at 703-993-4121 if you have questions or comments regarding your or your child's rights as a participant in the research.

This research has been reviewed according to George Mason University procedures governing your or your child's participation in this research.

I have read this form and I agree to allow my child to participate in this study.

Signature of parent, guardian, or legally authorized representative:

Name of parent, guardian, or legally authorized representative:

For emailed consent, please send an email to kdoylefe@gmu.edu stating:

“Yes, I allow my child to take the surveys and watch the educational video.”

Please include your full name and the full name of your child in the email.

Contact Information collected for the purposes of contacting you and your child to take the final survey 1-3 months after taking the first survey. This information will be destroyed at the completion of the study.

Email:

Phone number:

Name of child: _____

Date: _____

APPENDIX C



Can an educational video help youth understand their rights during interactions with police?

18-21 YEAR OLD CONSENT FORM

This study is being conducted by Kate Doyle Feingold, J.D., a PhD candidate at George Mason University in Fairfax, Virginia to learn more about how to help youth understand their legal rights during interactions with police and how to help them avoid making false confessions. This is an independent study.

Your participation in this study is really appreciated. If you agree to participate, you will be asked to answer 32 written questions to understand what you already know about your rights and whether you've interacted with police in the past; this will take approximately 15 minutes.

Then some participants will watch an educational video that is approximately 7 minutes long, followed by a shorter written survey (23 questions). Some participants will not watch this video at the beginning of the study and it is very important you do not talk with other participants about what you learn. At the end of the study I will make sure all the participants have access to the educational video.

After 1-2 months I will follow-up with you with a final survey that is 32 written questions and will take approximately 15 minutes. All participants who turn-in the final survey will be paid \$10 in cash for your time. A small number of participants will be asked to answer 3-4 questions about their participation at this time, which will take approximately 10 minutes.

Your participation is completely voluntary. You may withdraw from the study at any time and for any reason. You may also refuse to participate or refuse to answer specific questions, even if you agree to participate. You may change your mind about participating at any time while taking the survey and will be free to leave. There are no

foreseeable risks for participating in this research. The potential benefits to you include learning more about your constitutional rights during interactions with police. If you turn in the final written survey, you will be paid \$10 in cash for your time.

The data in this study will be confidential. Any results from the surveys that we discuss in our written reports and presentations will be anonymous. We won't share your name or anything else that identifies you. While it is understood that no computer transmission can be perfectly secure, reasonable efforts will be made to protect the confidentiality of your transmission.

This research is being conducted by Kate Doyle Feingold, J.D. at George Mason University. She may be reached at 540.273.5461 or kdoylefe@gmu.edu with any questions or to report a research-related problem. Her faculty advisor is Dr. Linda Merola, J.D., and she may be reached at LMerola@gmu.edu. You may contact the George Mason University Institutional Review Board office at 703-993-4121 if you have questions or comments regarding your or your child's rights as a participant in the research.

This research has been reviewed according to George Mason University procedures governing your participation in this research.

I have read this form and I agree to participate in this study.

Signature of participant: _____

Contact Information collected for the purposes of contacting you to take the final survey 1-2 months after taking the first survey. This information will be destroyed at the completion of the study.

Email:

Phone number:

Name: _____

Date: _____

APPENDIX D



Can an educational video can help youth understand their rights during interactions with police?

Child Assent Form

The reason for this research is to learn more about how to help children understand their legal rights during interactions with police and how to reduce the likelihood of false confessions by children.

If you agree to help with this study, you will be asked to meet with me, Kate Doyle Feingold, J.D. from George Mason University, to take a written survey that will take approximately 15 minutes. After the initial survey some participants will watch a short educational video (7 minutes) and take another shorter survey that will take approximately 10 minutes. After 1-2 months I will contact you to take another survey that will take approximately 15 minutes to complete and at that time the remainder of the participants may watch the educational video. It is very important that you do not discuss the surveys or educational video with other children. If you turn-in the final survey you will be paid \$10 cash at that time. If you skip questions on the final survey because they make you feel uncomfortable, you will still receive \$10 cash when you turn in your survey.

Your parents have already agreed that you may participate in the study, so feel free to talk with them about it before you decide whether you want to join the study.

There are no risks for taking part in this study. If you don't want to answer a question you don't have to. You may benefit from this study by learning more about what to do when stopped by police.

We won't write your name on any of the surveys. We will not share your name with anyone. We might write reports or give presentations about the results of the study but we will not identify you or your parents.

You have a choice. You don't have to participate in this study if you don't want to. Even if you do decide to take the surveys, it's OK if you change your mind after you start. I will not get mad and nothing bad will happen to you. It won't affect your grades in school or stop you from doing other activities.

If you have any questions about this research, you can call me at 540-273-5461 or email me at kdoylefe@gmu.edu. You can also call Dr. Linda Merola, J.D. at 703-993-9419. The George Mason University Institutional Review Board (IRB) Office knows about this research and said it was OK for us to do it. You can call them at 703-993-4121 if you have any questions about being a part of this research.

The researcher will give you a copy of this page to keep for yourself.

Please fill out the form below to say whether you're OK with us talking to you, giving you the surveys and showing you the educational video.

Child Assent to Participation

1. I have read this form and I agree to help with this study.

_____ Yes

Date

APPENDIX E

Linear Regression Showing Difference in Difference Change Over Time

Outcome	Coef.	Rob. Std. Err.	t	<i>p</i>
Wave	1.259	.907	1.39	.168
Treatment	.151	.794	.19	.850
TreatmentxTime	.611	1.20	.51	.613
Site				
2	.637	.837	.76	.447
3	1.783	.850	2.10	.038
4	2.149	.954	2.54	.013
Constant	14.674	.716	20.49	.000
R-squared = .12 F (6, 117) = 2.95 <i>p</i> = 0.010				

Poisson Regression Showing Difference in Difference Change Over Time

Outcome	Coef.	Rob. Std. Err.	z	<i>p</i>
Wave	.077	.054	1.43	.153
Treatment	.010	.050	.19	.847
TreatmentxTime	.034	.071	.48	.632
Site				
2	.042	.053	.80	.425
3	.111	.052	2.13	.033
4	.149	.057	2.61	.009
Constant	2.687	.046	58.09	.000
R-squared = .0165 <i>p</i> = 0.0053				

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BIOGRAPHY

Kate Doyle Feingold graduated from Patch American High School in Stuttgart Germany in 2000. She received her Bachelor of Arts from New York University in 2004. She was commissioned in the United States Marine Corps in 2004 and served until 2012. She received her Juris Doctorate from George Washington University Law School in 2007. She has been licensed to practice law in the Commonwealth of Virginia since 2007.