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A Learning Style Group Comparison of Southern California Public School Employees:  
Investigating the Level of Understanding Family Educational Rights and Privacy Act  
(FERPA) When Using a Preferred Learning Style Training

A Dissertation Submitted in partial fulfillment of the  
Requirements for the degree  
Doctor of Public Administration

Jorge Galarza

Division of Online and Professional Studies

Department of Public Administration

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A Learning Style Group Comparison of Southern California Public School Employees:  
Investigating the Level of Understanding Family Educational Rights and Privacy Act  
(FERPA) When Using a Preferred Learning Style Training

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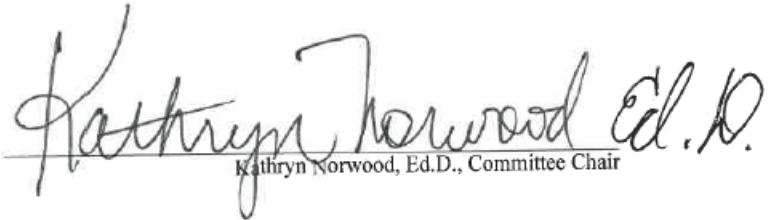
Jorge Galarza

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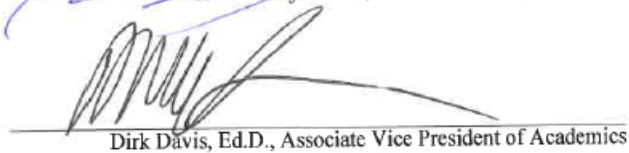
Kathryn Norwood, Ed.D., Committee Chair



Greg Bowden, Ed.D., Committee Member



Riste Simjanovski, D.P.A., Committee Member



Dirk Davis, Ed.D., Associate Vice President of Academics

## ABSTRACT

**Purpose.** The purpose of this study was to examine whether a Family Educational Rights Privacy Act (FERPA) sponsored training that matches the employee's learning style preferences increases the level of understanding FERPA protocols. It is hypothesized that if the training style does not match the employees' preferred learning style, there is the possibility that FERPA policies and procedures are not adequately learned and used, especially when it is appropriate for an employee to reveal or disclose confidential information and when there are exceptions.

**Theoretical Framework.** This study was based on Neil Fleming's VARK (visual, aural/auditory, read/write, kinesthetic) model. The VARK model states that everyone learns differently, and delivering information about how people learn best will increase content retention.

**Methodology.** A booklet that contained both a VARK questionnaire and a FERPA quiz was used in this study. The VARK questionnaire was used to identify participants' learning styles. In addition, an audio FERPA training was used as an instrument to test how auditory and nonauditory learners scored on their FERPA quiz.

**Findings.** The data indicate that the auditory learners' group overall scored much higher than nonauditory learners. Although some individual nonauditory learners score high, this can be the result of different factors.

**Conclusions and Recommendations.** Results indicate that overall auditory participants retained more content and as a result scored high in their FERPA quiz. Future scholars should consider investigating how participants would score if visual, read/write, or

kinesthetic training were used instead of auditory materials and examining mixed learners and how one type of training impacts their content retention.

*Keywords:* learning styles, FERPA, public schools, Southern California, audio training supporting staff, and teachers

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## CHAPTER 1: INTRODUCTION

This dissertation study investigated the value of receiving training in a format that matches a participants' preferred learning style. The quantitative group comparison study was based upon direct observation and analysis of data obtained from Southern California public school employees who consented to participate in the study. Some of the employees received the training in their own preferred learning style, and some employees did not receive the training in their own preferred learning style. The objective of this study was to investigate whether training employees in their learning preference improves their level of information retention.

### **Background**

The possibility of a cyber attack, data loss, information breach, and employee error in public organizations appears unavoidable. Specifically, in public academic institutions that manage students' personal and confidential information, various situations can occur that can lead to data breaching without properly trained and informed employees. Institutions, employers, and employees depend on technology and software to facilitate daily tasks and activities. However, no amount of technology and software can protect students' confidential information without properly training and informing employees of safety procedures. The federal government implemented the federal law known as the Family Educational Rights and Privacy Act (FERPA) of 1974 to protect the privacy and personal information of students. The increasing dependency on safeguarding information given the increasing instances of attacks, spoof, and ransomware raises the need to understand the obligation of FERPA security and privacy compliant programs and behavior among employees (D'Arcy & Greene, 2014). The law

applies to all schools that receive funds from the government, which requires compliance within the institution. In public academic institutions, the type of training used plays a critical role in compliance with FERPA's security information concerns. Failure to comply with FERPA guidelines results in consequences such as lawsuits and loss of government funding. As a result, public organizations have introduced various training programs to best equip employees to safeguard any personal information within an institution. Many of the programs used in public schools do not focus on implementing FERPA training that matches employees' learning styles. On the contrary, administrators in public schools implement any FERPA training that complies with FERPA laws and may ignore the effectiveness in different employees. Current FERPA training programs focus on either visual, auditory, or kinesthetic training. Public schools choose not to incorporate a FERPA training program that is suitable for all employees' learning style. Ensuring that employees retain information is critical because laws constantly change, and public schools need workers to promptly understand up-to-date federal guidelines.

Government laws constantly change and require public schools to maintain current regulations and employee awareness. Most public institutions lack FERPA knowledge among employees. Efforts to improve employee knowledge and compliance through training continues to be a struggle. The intent of this study was to explore how a FERPA training program that either matches or does not match an employee's learning style impacts his or her level of FERPA retention.

Security policies and programs implemented by upper level administrators govern what protocols best comply with FERPA's guidelines. Von Solms, Von Solms, and

Caelli (1990) stated that it should be the first level of proper security training that begins with the intervention by top-level management implementation.

Public administration is the implementation of government policy and academic discipline to prepare civil servants to work in the public sector. For a public school to provide a secure service to the community, compliance of FERPA procedures and protocols needs to exist in the institution (Reidenberg et al., 2013).

Protecting a family's personal information is invaluable because there is no price that can replace an individual's clean record. It is important for families to ensure that their children's records stay protected and continue as they grow into adulthood. Stealing an adult's personal information creates problems in his or her credit history, which may impact his or her ability to purchase a home, car, or obtain a personal loan. If a young student has his or her identity stolen, his or her credit history may be impacted before reaching adulthood. Clearing a person's record takes time and money to fix. Therefore, public organizations that collect, file, and manage the community's personal information must ensure that the public's information remains secure. The implementation of FERPA provides guidelines to public schools to ensure employees follow secure practices when managing students' personal information. The Department of Justice's Privacy Enforcement and Protection Unit enforces federal and state laws to provide strategies to protect privacy and encourage best privacy-practice policies.

California legislative civil code Division 3 under Chapter 1 Information Practices Act of 1977 in Article 5 Agency Requirements Section 1798.20 stated that each agency requires implementation of rules of conduct and instruction for individuals who operate, disclose, or maintain records containing personal information to comply and follow

proper procedures (California Legislative Information, n.d.). Furthermore, Section 1798.21 mandated that each agency requires appropriate administrative, technical, and physical safeguarding of data to ensure the security and confidentiality of personal records hold proper procedures (California Legislative Information, n.d.).

The California Department of Justice, implementing a privacy training program, ensures employees understand policies, procedures, and obligations of managing student data and personal information (Harris, 2016). The privacy unit enforces state and federal privacy laws and develops programs to educate individuals and organizations on privacy obligations, rights, and best practices. Institutions unaware of FERPA regulations manage and store confidential records differently, which can pose a safety risk without proper privacy protocols.

The Fordham Law School found that 95% of local school districts nationwide depend on cloud services to manage and maintain student data (Reidenberg et al., 2013). This study found that 20% of school districts failed to understand and govern information safety procedures (Reidenberg et al., 2013). Reidenberg et al. (2013) demonstrated the need to implement proper FERPA compliance training to prevent employees from unknowingly disclosing student information. Additionally, institutions adapting to new technology to improve productivity and effectiveness may also cause noncompliance of FERPA and the need for continuing training updates.

Updated FERPA compliance training procedures help public institutions to maintain students' personal information safely even with the shift of technology. As a result of FERPA, public academic institutions must maintain safety training procedures to protect students' confidential records.

Confidential records that schools must protect include directory information, social security numbers, identifiable data, progress reports, and test results (Harris, 2016). Failure to safeguard student records can result in identity theft. Senate Bill No. 1386 states that identity theft continues to grow at an alarming rate in California. Criminals who steal personal identity information, such as social security numbers, use the data to open credit card accounts, write fraudulent checks, buy cars, and commit other financial crimes (California Legislative Information, 2015). Ultimately, employees at public academic institutions must maintain and are mandated to safeguard the students' data.

The protection of information within public schools depends on the type of training and implementation of a security policy that best increases FERPA compliance. The administration's responsibilities and actions require them to ensure all training safety procedures in compliance with FERPA remain active and functional. Typically, the administration team implements a training policy to increase the security awareness and understanding of FERPA by faculty and staff (Eminağaoğlu, Uçar, & Eren, 2009; Thoms, 2008). Ultimately, information protection relies on the understanding and awareness by the employees who work with confidential information in the organization. Southern California public school employees and employers maintain and manage a lot of private and personal information. Employees in Southern California public schools must understand and identify possible data risks that emerge externally and internally. Therefore, effective training allows public schools to reduce FERPA violations. Active institutions that take the necessary steps in safeguarding data increase the protection and security of information (Benham, 2011).



The faculty and staff (end users) who access and work with student information security systems hold responsibility to ensure the security of data within the public schools complies with FERPA. Any employer or employee unaware of FERPA data safety protocols in public academic institutions increases data breach vulnerability, lawsuits, and loss of government funds. This means all those encountering students' information need FERPA training. Luo, Brody, Seazzu, and Burd (2011) explained that insufficient training and understanding of security threats within an organization lead to successful data breaches of valuable information. Furthermore, the risk of employees violating FERPA increases when inadequate training procedures exist in organizations. Employers and employees need to understand the importance of FERPA's data safety guidelines as a high priority to help an organization identify and prevent security risks (Aloul, 2012; Cox, 2012).

Any data breach affects not only the public but also the employees within public organizations (Akhunzada et al., 2015). Liability issues and consequences that individuals and public academic institutions face may result in the potential loss of federal financial aid and individual lawsuits (McElmurry-Green, 2013). In 2015, organizations in the United States reported 79,790 security incidents and 2,122 confirmed data-breach cases (Widup, Rudis, Hylender, & Spitler, 2016). Ultimately, examining FERPA's private information security guidelines in public organizations provides a better understanding of the training process and employee awareness. Adequate training procedures increase employee awareness to protect private data and reduce the risk of violating federal laws. The importance of understanding FERPA regulations provides administrators with a direction for implementation of training programs. Furthermore,

implementing a FERPA program and policy compliance increases employee and employer awareness and reduces the possibility of data breach, identity theft, and violation of federal laws.

### **Statement of the Research Problem**

This study addresses the concerns with FERPA training program procedures to increase employee awareness when managing students' personal information. Protecting public academic organizations' valuable information raises various concerns because an increasing number of data-breach risks emerge from internal and external factors. The high probability of experiencing a record breach and/or releasing data to unauthorized users requires employees to understand FERPA data security guidelines (Cox, 2012; Green, 2014; Yaseen & Panda, 2012). Among the largest obstacles organizations encounter with protecting information include human factors, insider threat, and inadequate security policies (Kearney & Kruger, 2014). Employees and employers who do not follow FERPA security policies and remain unaware of the safety procedures pose a serious threat in violating federal laws, jeopardizing students' personal information, and losing government funds (Y. Chen, Ramamurthy, & Wen, 2012). Acquiring access to data by deceiving employees and employers remains a more feasible pathway for identity theft to occur than an outside attacker searching for technological flaws (McCrohan, Engel, & Harvey, 2010). When organizations' hardware and software protection protocols reduce external hacking, intruders shift to unaware employees through e-mails and online traps such as phishing and spoofing to gain access into the institution (Garfinkel, 2012). Deceptive techniques often cause public academic institutions'

faculty, staff, and administrators to become unwitting victims of an attacker trying to steal private and personal data.

The implementation of FERPA security guidelines to keep private information safe and provide direction for an organization remains ineffective if training programs fail to increase the employee understanding and awareness of data risks (Mishra & Chasalow, 2011). The average cost to an organization in the United States per data-breach incident is approximately \$5.9 million with approximately \$16 billion stolen through identity theft, impacting over 12.7 million individuals within a year (Sen & Borle, 2015). One's own personal information holds great value because it provides an individual with an identity, credit, history, and government services. Jarman and Luna-Reyes (2016) stated that collecting this information bears a cost and revealing it to others may be perceived as costly as well. The public value is a reflection of the services available to people, which can include jobs, health care, banking, finance, material items, government incentives, and retirement plans (Jarman & Luna-Reyes, 2016). Personal information holds great public value because public organizations, such as public schools, possess data that are costly. Valuable information can be used for many purposes such as solving problems, obtaining a better life, and receiving benefits (Jarman & Luna-Reyes, 2016). Therefore, having personal information not only opens many opportunities but also changes the lifestyle of people, which is why it is important to safeguard valuable data.

Bean (2012) stated that the cost of inadequate security training for protecting data continues to increase, and organizations require a more vigilant approach in identifying any new emerging threats and challenges. Despite preventive measures by organizations

to protect private information, data-breaching incidents continue to occur in the United States (Sen & Borle, 2015). Therefore, management must evaluate, develop, and expand private information security practices to increase employee information security awareness (Ansen, 2014).

### **Purpose Statement**

The purpose of this study was to examine whether a FERPA-sponsored training that matches the employee's learning style preferences increases the level of understanding FERPA protocols. It is hypothesized that if the training style does not match the employees' preferred learning style, there is the possibility that FERPA policies and procedures are not adequately learned and used, especially when it is appropriate for an employee to reveal or disclose confidential information and when there are exceptions. First, this study examined elementary public school's employees' level of FERPA retention by examining how employees best understand and learn information. Second, this study investigated how public school employees' learning preference impact their retention and knowledge of FERPA information security guidelines. This study used a quantitative method to collect data, examine, and present the findings. A purposive sampling, which is a nonprobability sample, was used in this study. The purpose of a purposive sampling was to identify, select, and categorize participants into two groups. The selected population represented visual, aural/auditory, read/write, and kinesthetic preferred learning styles. The selected population consisted of two groups that included faculty staff and classified staff within Southern California public schools. Faculty staff is defined as teachers. Classified staff is defined as front office personal, assistants, janitors, and any type of supporting staff. All participants were given a visual,

aural/auditory, read/write, and kinesthetic (VARK) questionnaire and a FERPA audio training followed by a FERPA test. The VARK questionnaire, when graded, determined the preferred learning style of the participant who was then placed into an auditory or nonauditory group. The group of participants who received training that matched their learning preference were hypothesized to score higher than the group who did not receive FERPA training that matched their learning style.

The results of this research serve to provide an extensive understanding of how learning styles impact the way employees better retain and understand FERPA laws. Recognizing the type of FERPA training given and the employees' learning preference in public academic institutions allows for a better federal law compliance organization. Additionally, employee awareness and knowledge of information security risks relates to the type of FERPA training program a public school implements.

Understanding training compliance procedures and Southern California public school employee's perception of protecting information allows for increased awareness and identification of security threats within an organization. Ultimately, all public schools that receive government funding from the U.S. Department of Education must comply with FERPA regulations, which require public schools to implement a training program to fulfill legal obligations. Administrators in public schools can implement a variety of compliance FERPA training programs to educate employees of federal laws including visual, aural/auditory, read/write, and kinesthetic learning styles. Not everyone learns and retains information the same way (Fleming, 1995).

This study examined whether effective FERPA training programs depend on the employees' learning styles. The Southern California public school selected training

method and identified employee learning style suggests to what extent the relationship exists between retention of training and learning styles of employees. Implementing a FERPA training program that does not match employees' learning style may demonstrate difficulties in retaining information as stated in the learning styles theory. The study results should assist administrators of public organizations to consider learning styles when developing and implementing effective training programs and policies that impact the community. The research also can serve as a collection of data that will provide additional information for further research into policy data protection within public organizations.

### **Research Questions**

The research questions helped the researcher understand how FERPA-compliant training programs that match an employee's learning preference affect his or her understanding of FERPA regulations. To investigate FERPA-compliant training and procedures and the impact they have on learning styles implemented in Southern California public schools, the following research questions served to guide the study:

1. To what extent does FERPA training that matches an employee's learning style affect an employee's retention level of FERPA training?
2. To what extent does FERPA training that does not match an employee's preferred learning style affect an employee's retention level of FERPA training?

The research questions used in this quantitative method study served to examine a relation, if any, between an employee's learning preference and how a FERPA training is delivered. The information gathered in this study can provide public academic institution administrators with options to develop and implement adequate FERPA-compliant

training programs that minimize the risk of violating federal law. Additionally, this study can provide knowledge to administrators when developing and implementing any other informative training programs. Ultimately, the study may also serve as a reference for future research studies to expand on FERPA awareness procedure training programs in Southern California public schools.

### **Hypotheses**

Individuals have the capacity to capture, retain, and understand information.

Different types of practices have been implemented by institutions to maximize how an employee can follow any rules, regulations, and laws. As a result, this study investigated the two research questions and their hypothesis to understand how a FERPA training that matches an individual's learning style impacts his or her ability to retain information.

Answering the two research questions provided the answers to the hypothesis or alternative hypothesis. The research null hypothesis and the alternative hypothesis include Research Null Hypothesis (RH0) and Alternative Hypothesis (RH1).

RH0: Learning styles have no effect on FERPA training.

RH1: Gearing FERPA training to a person's learning style will increase his or her retention of FERPA and their FERPA compliance scores.

Providing adequate FERPA training that matches an individual's learning style can benefit knowing how information is best retained. Employees who can retain vital information reduce the probability of a worker violating federal laws in a public organization. The hypothesis for this research study was the idea that gearing FERPA training to a person's learning styles will increase his or her understanding of FERPA compliance scores and lowering the FERPA violation.

The alternative hypothesis for this study was that learning styles will not have a statistically significant relationship to the FERPA training scores. Everyone learns and understands information differently, which requires appropriate FERPA training to increase awareness in public academic institutions (Fleming, 1995). Insufficient FERPA compliance training programs and ineffective exposure to the federal law impact employees' understanding of protocols. Different federal laws and policies that public academic institutions require employees to not only follow but also understand require effective decision-making by administration. Therefore, public academic institutions that implement FERPA training programs that match employees' learning style should have a greater level of understanding of federal laws.

### **Significance of the Problem**

Southern California public schools are mandated to provide FERPA training to their employees to maintain compliance with federal regulations. Education and awareness provide the fundamental tools to encourage security compliant behavior (Parsons, McCormac, Butavicius, Pattinson, & Jerram, 2014). FERPA's private information security regulations increase employees' awareness, which benefits both organizations and students by addressing the issue of potentially disclosing private and personal information to unauthorized recipients. Organizations and individuals risk losing not only valuable data but also millions of dollars to institutions and workers in damage (Sen & Borle, 2015).

The literature has yet to explore the importance of creating an effective FERPA compliance program to protect confidential student information and create more awareness of periodic changes to FERPA regulations in public academic institutions.



The literature discussed an overview of FERPA record retention, confidentiality, federal legislation background, public rights, consent, disclosure, and the enforcement of FERPA (Copenhaver, 2006). Additionally, the literature discussed the issues of staff training and file management that exist in public organizations (Copenhaver, 2006).

Private and personal information commonly used in public schools displays the identity of an individual and serves as a traceable validation of someone's existence. Personal information accumulates over time and provides value to people and institutions. People's personal information can serve to open bank accounts, find employment, apply for credit, and obtain finance. Criminals use a variety of strategies to obtain people's personal information for different avenues for their benefit. They target and attack organizations that collect, store, and manage personal information to retrieve any valuable data. Senate Bill No. 1386 states that identity theft continues to grow at an alarming rate in California. Students enrolled in grades K through 12 public academic institutions typically do not have a credit history, which makes them ideal targets.

Any personal information released without proper consent may result in the public institution forfeiting any government funding. Public academic institutions that encounter data-breach incidents risk losing more than government funding; they can also experience a decrease in overall enrollment (Styles, 2015). Violations of FERPA regulations not only attract legal actions against both individuals and public schools but also create risk of loss of federal funding to the school. FERPA prohibits federal funding for institutions that release educational records without proper student consent (WeComply, 2012). Losing federal funding causes financial problems for most institutions because the government aid accounts for many expenses. According to the

U.S. Department of Education (2005), each student enrolled in a public school (K-12) costs \$8,977 dollars. Therefore, researching training procedures and employee awareness provides crucial information to help public academic institutions to understand gaps that lead to weak safeguarding of student data practices. Ultimately, to implement and improve effective data safety training procedures that comply with FERPA and increase employee awareness, further research is needed. Exploring the type of practices found in public schools and examining their effectiveness in fostering employee awareness allows for future researchers to expand the study or possibly test the findings in current public institutions.

### **Definitions**

**Data breach.** An unauthorized or illegal access, viewing, or obtaining of data by an individual who purposefully steals information (Gupta & Sharman, 2012). Data breach includes any electronic and hard copy information that an employee uses or works with in the organization.

**Data protection.** The process of safeguarding important information from corruption, unauthorized access, and/or loss (Digitale Gesellschaft, n.d.). The responsibility of an employee to protect information from exposure of both paper and electronic form. Maintaining information safe from unauthorized users and taking necessary actions to retain data safety.

**Directory information.** Consists of a student's educational record not generally considered harmful or an invasion of privacy if disclosed. General information in the student's educational record that does not risk the individual's privacy or cause great harm if disclosed. The type of data under the directory information includes the student's

name; address; date of birth; enrollment status; telephone listing; e-mail; photograph; participation in activities, including sports, height, and weight; and place of birth.

**FERPA.** The acronym that refers to the Family Educational Rights and Privacy Act of 1974, as amended, enacted as Section 438 of the General Education Provisions Act.

**Information security awareness.** The various levels of understanding of preserving information based on the values embedded in the organizational culture (Kayworth & Whitten, 2010). The routine activities of employees in an organization that influence the understanding of securing information. Upper management in public organizations creates information security policies to provide a level of instructions on information security threats, participate in information security projects, and promote an information security organizational culture (Bulgurcu, Cavusoglu, & Benbasat, 2010).

**Insider threat (internal threat).** Trusted individuals who manage data in an organization with insufficient understanding of information security knowledge in internal operations and safety protocols often attract data breaching. Insider threats include current employees, former employees, contractors, consultants, or vendors. Insider threat occurs when authorized or unauthorized access to data causes a violation of the security policy (Green, 2014).

**Learning styles.** A set of preferences that individuals have to best process and retain new or old information.

**Personally identifiable information:** Information or data in this category includes, but is not limited to, social security number, student's identification (ID), and personal characteristics or easily traceable identity, name of the student, the parents'

names, and the names of other family members. This is the information most at risk for data breach.

**Phishing:** The fraudulent practice of sending e-mails that resemble and mimic a reputable company information to trick individuals into providing personal information, such as passwords and credit card numbers.

**Security awareness training.** A method used to educate employees about possible security threats and breaches. The training includes causes of data loss, policies and procedures to safely use technology and preserve information, and updates of new threats and prevention practices (Kim & Homan, 2012).

**Security policy.** Written standards of operation created by upper management within an organization to provide directions, rules, guidelines, and responsibilities to address information security situations. The security policy provides the proper and secure method for employees to take when using information security measures (D'Arcy & Greene, 2014).

**Southern California public schools.** An educational organization controlled, funded, and managed by a government agency such as public elementary schools, universities, and colleges.

**Spoofing.** Imitating something by matching appearance and characteristics. The act of tricking an individual into thinking a website, a phone number, an account, a service, and an authority are legitimate.

**VARK.** Neil Fleming designed the model VARK, which is the acronym that stands for visual, auditory, read/write, and kinesthetic. The VARK model is the sensory modalities that are used for learning information.

## **Organization of the Study**

This study is organized into five chapters, which include Chapter 1, the introduction; Chapter 2, the literature review; Chapter 3, the methodology; Chapter 4, the findings; and Chapter 5, the conclusion of the research. Chapter 1 introduced the study to allow readers to understand what the research consists of and what steps were taken. Therefore, Chapter 1 included the introduction, the statement of the problem, the purpose of the study, the research questions, the hypothesis, the significance of the study, and the definitions of the terms.

Chapter 2 provides the readers with a review of relevant literature associated with this research topic. The purpose of Chapter 2 is to inform readers and provide an in-depth understanding of relevant past studies and data that assist in explaining this study. In addition, Chapter 2 addresses the history background, data breaching risks, FERPA, FERPA guidelines with exceptions, safety procedures and guidelines, FERPA compliance, FERPA employee awareness, FERPA training, FERPA training in public academic institutions, training procedures, security culture, learning styles, concept map, and the conclusion.

Chapter 3 provides the methodology section of this research paper, which focuses on the steps taken to answer the two research questions. The purpose of this chapter is to not only answer the two research questions but also determine whether the hypothesis is valid or whether the alternative hypothesis is valid. Chapter 3 consists of the introduction, research questions, research design, population and sample, instruments, validity and reliability, data collection, questionnaire design, FERPA training, FERPA quiz, data analysis, and the conclusion.

Chapter 4 presents the results of the study and what details require further investigation. Nevertheless, Chapter 4 provides the core information to conduct this group comparison research study.

Chapter 5 is the last section in this search study, which discusses and analyzes the results. The findings and the data obtained from Chapter 3 determined how individuals fared with the FERPA training that matched their leaning styles. Chapter 5 provides the conclusion of the project and what recommendations future scholars can take to further the study.

## CHAPTER 2: REVIEW OF THE LITERATURE

This literature review addresses the issues of data protection, Family Educational Rights and Privacy Act (FERPA) guidelines, safety procedures, training, and learning styles. A review of the literature on data protection demonstrates the need for public academic institutions to safeguard students' private information because data breaching affects not only the institution but also the community as well. Organizations must understand that protecting private information is critical because retrieving, altering, and using data can harm an individual's record and can in the absence of an enforcement policy impact employees' awareness. California legislative bills provide public academic institutions with policies and programs to safeguard personal information, but data breaches continue to exist. Communities trust public academic institutions to protect any personal information given when enrolling students. Therefore, it is necessary to explore how learning styles affect training programs and increase employees' level of understanding when complying with FERPA.

### **Historical Background**

The state government funds and operates public academic institutions for students in grades K through 12 to provide an education to the community at no cost. According to the California Department of Education (n.d.), over 6,000,000 students from the school year 2016-2017 received public education. Southern California public schools must collect, store, and manage a massive amount of data that identifies students but also contains personal and valuable information. Information that schools collect includes name, address, phone, social security number, birth date, parents' names, and other valuable data. Students' private and personal information serves as an identity used to

gain access to different services such as bank accounts, loans, employment, and many other services. Any accidental or unknowing sharing of data can lead to a criminal stealing the identity of the students, causing harm to their personal record. As a method to reduce unauthorized sharing of personal information, the government introduced a federal law (FERPA) to protect the privacy and information of student data. FERPA requires all public academic institutions to maintain a data safety protocol that complies with the federal law. All public academic institutions must ensure that proper data protection guidelines comply with FERPA and foster employee awareness.

Private and personal information displays the identity of an individual and serves as a traceable validation of someone's existence. The volume of personal information accumulates over time and provides value to people and institutions. Because personal information is so valuable, criminals seek different avenues to obtain people's personal information for their own benefit. California Senate Bill No. 1386 states that identity theft continues to grow at an alarming rate in California. Criminals who steal personal identity information, such as social security numbers, use the data to open credit card accounts, forge checks, buy cars, and commit other financial crimes (California Legislative Information, 2015). Students enrolled in grades K through 12 public academic institutions typically have no credit history, which makes them ideal targets. The personal information of a student can lead to billions of dollars in stolen identity. Stolen information through identity theft was approximately \$16 billion in 2014, impacting over 12.7 million individuals within a year (Sen & Borle, 2015). Data breaching also causes financial problems for institutions. The average cost to an



organization in the United States per data breaching incident is approximately \$5.9 million (Sen & Borle, 2015).

However, intentional criminal data breaching is not the only threat; unintentional data breaching among employees can also occur. Unintentional data breaches among employees remain the top cause of FERPA violations because employees are either not fully aware of the federal law or do not have proper training. Uninformed public institution workers can harmlessly share students' personal information to legitimate family members without realizing they are violating FERPA. The decision public school employees make on the protection and sharing of student data can create not only data safety concerns but also violate FERPA laws.

Any personal information released without proper consent may result in the public institution forfeiting any government funding. Public academic institutions that encounter data breach incidents risk losing more than government funding; they can also experience a decrease in overall enrollment (Styles, 2015). Violations of FERPA regulations not only attract legal actions against individuals and the public school but also lead to the risk of losing federal funding. FERPA prohibits federal funding for institutions that release educational records without proper student/parent consent (WeComply, 2012). As a result, researching training procedures and employee awareness provides crucial information to help public academic institutions understand gaps that lead to weak safeguarding of student data practices. Ultimately, to implement and improve effective data safety training procedures that comply with FERPA and increase employee awareness, further research needs to occur. Examining people's learning styles and how they concur in fostering a level of understanding of FERPA laws

allows future researchers to expand the study or possibly test the findings in current public institutions.

### **Data Breaching Risks**

Data breaches cause concern for organizations that collect, store, and manage students' personal information. The breach of public academic institutions' critical private information affects millions of current and former students (Widup et al., 2016). Workers in public academic institutions maintain different levels of comprehension and awareness in data protection. Not everyone learns and retains information the same, which creates an issue when implementing a data safety policy that complies with FERPA. Criminals constantly introduce different techniques and strategies to gain access to personal information. Phishing remains one of the most important threats to target because approximately 8,000,000 worldwide cases targeting unaware employees in organizations have emerged (Lungu & Tabusca, 2010). Using phishing tactics creates the illusion of an authorized organization requesting personal information. Phishing occurs through websites, e-mails, phone calls, and a combination of any of the three (Kumar, 2015). Public academic institution employees who do not recognize the threat or understand the proper procedures are the leading causes of the breaching of students' personal information. Spoofing caller ID, e-mails, and websites create serious concerns for public academic institutions because criminals can mimic an authorized organization.

Creating a false caller ID, e-mail address, and website creates powerful tools to trick any unsuspected worker in a public school. According to Wesson, Shepard, and Humphreys (2012), spoofing matches the transmission GPS signal structure interference to match and manipulate the receiving device identity. A spoof attack can counterfeit a

signal and change a program's caller ID, e-mails, and websites (Wesson et al., 2012). Victims unwillingly assist attackers who operate under the guise of an authorized organization seeking data by sharing personal information (Florencio & Herley, 2005). The end user holds responsibility to ensure that any personal information safely reaches an authorized organization or individuals without compromising the students' identities. An unaware end user in the Southern California public schools is a major threat to a security breach (Ogutcu, Testik, & Chouseinoglou, 2016). Regardless of the equipment and software used by the public academic institution, the responsibility of safeguarding data rests on the employee who stores and manages the students' personal information. Public schools' major risks include employee awareness of data protection protocols and what procedures need to take place to keep the level of risk down.

Fry (1999) found during an investigation that an institution suffered a serious breach of information caused by complete ignorance of FERPA regulations. The unaware user failed to comply with FERPA causing an intentional, unintentional, and malicious breach of valuable student information to occur. Fry believed that violating FERPA requires a disciplinary action to prevent future purposeful infractions. Institutions need to ensure that any student personal information managed by an employee requires proper training to avoid the loss of government funds. Revoking government funding from public academic institutions for violating FERPA may promote greater compliance (Daggett, 1997). Public academic institutions that risk losing government monetary assistance will push to implement any regulations needed to qualify for federal funds. According to Daggett (1997), any victim of identity theft should receive monetary compensation from the institution, and employees or institutions

should be reprimanded for not complying with FERPA laws. The use of such disciplinary action may lead to employees and institutions taking the proper steps to safeguard data in compliance with FERPA.

Researchers identify security awareness as a challenge to the end user, which poses a major privacy information security threat (Ashenden, 2008; Warkentin & Willison, 2009). The decision of an employee to share students' personal information depends on the knowledge each employee has in understanding FERPA and the exceptions FERPA provides. Deceiving an authorized user to access private information remains a much more probable approach than identifying a weakness in the organization's firewall technology (McCrohan et al., 2010). Ultimately, employees at public academic institutions must maintain an understanding of safety awareness protocol in order to safeguard data. For these reasons, Southern California public schools are required to maintain programs that comply with FERPA and increase employee awareness.

### **Family Educational Rights and Privacy Act**

Public academic institutions enroll millions of students every year, which requires a data protection plan to reduce exposing personal information to unauthorized users. FERPA protects the privacy of student education records and categorizes the type of information into the directory information and the personal identifiable information (FERPA Regulations, 2009).

## **Types of Information**

### **Directory Information**

General information in the student's educational record that does not risk the individual's privacy or cause great harm if disclosed. The type of data under the directory information includes but is not limited to the student's name, address, date of birth, enrollment status, telephone listing, e-mail, photograph, and participation in activities, including sports, height, weight, and place of birth.

### **Personally Identifiable Information**

The type of information or data in this category includes but is not limited to social security number, student's identification (ID), and personal characteristics or easily traceable identity, name of the student, the parents' names, and the names of other family members. This is the information most at risk for data breach.

## **FERPA Guidelines With Exceptions**

The law applies to all schools that receive government funds under the U.S. Department of Education program. Southern California public schools require a safe environment while students obtain an education. Students who enroll in public academic schools need to provide different personal information to attend school. All the personal information received from students requires employees to safely collect, record, and manage the data. Different public academic institutions process data safety with methods that can cause vulnerability issues. Upper management provides employees in public academic institutions with several responsibilities, but the one major obligation workers must follow includes safeguarding private confidential information by complying with

FERPA's guidelines. FERPA serves to provide institutions a direction to legally maintain, store, and share students' personal information.

According to Protecting Student Privacy (2010), schools must obtain a written permission from parents or an eligible student before releasing any information. Schools may disclose directory information such as the student's name, date and place of birth, address, telephone number, honors and awards, and dates of attendance without a written consent. However, before disclosing directory information, FERPA requires schools to properly provide sufficient time to notify parents and eligible students. Notifying parents and eligible students of a possible disclosing of directory information allows them to deny the request. Other exceptions that FERPA allows schools to disclose student records include the following:

- School officials with legitimate educational interest.
- Authorized officials for audits or evaluation purposes.
- Other schools to which a student is transferring.
- Accrediting organizations.
- Judicial orders or lawfully issued subpoenas.
- Organizations conducting a study on behalf of the school.
- Health and safety emergencies.
- State and local authorities in the juvenile justice system.
- Authorized parties linked with the student's financial aid.

FERPA states that information must remain private and not released to third parties outside the institution. FERPA allows information to be shared when there is legitimate educational interest, parents of students, written consent, or a subpoena court

order. Before releasing any student information, employees should consider the situation and decide whether providing any data complies with FERPA. Styles (2015) validated this concern by stating that Southern California public schools should only disclose the minimum data requested. Failure to comply with FERPA guidelines may result in devastating consequences not only for the organizations but also for the students (Protecting Student Privacy, 2010). Organizations risk losing government funding, and students risk exposing their personal information to criminals (Sealand, Schwiebert, Oren, & Weekley, 1999). Furthermore, any organization that puts people's identities at risk creates major concerns for the public.

Employees who do not follow security policies can ultimately cause a serious threat to an organization's information (Al-Omari, El-Gayar, & Deokar, 2012; Y. Chen et al., 2012). Communities trust public academic institutions to not only provide students an education but also protect them from criminals seeking to obtain personal information from unaware organizations. When a security breach violates the public trust, enrollment will suffer. Many public academic institutions implement FERPA training programs to address the concern of insufficient employee awareness to the federal law. The responsibility for increasing employee awareness to FERPA regulations depends on proper employee training. It is imperative that administrators of public academic institutions implement a data safety training procedure program that complies with FERPA and assists in employee awareness.

### **Safety Procedures and Guidelines**

Public academic institutions have introduced many types of information awareness training programs that comply with federal safety laws, but the practices

remain insufficient to increase employee awareness. Hurley-Hanson and Giannantonio (2009) validated this concern by stating that many institutions do not maintain an adequate information security policy and those organizations with a data safety plan do not regularly update their policies. Employee awareness and safety procedures for protecting student data depend on how administrators implement training that complies with FERPA. According to Werlinger, Hawkey, and Beznosov (2009), nontechnical safeguarding data awareness requires the administration to implement training procedures and strategies to address the concerning issue of private information security.

A variety of different training procedures exist for public academic institution administrators to adapt and implement. The U.S. Department of Education established the Privacy Technical Assistance Center ([PTAC], 2015) to provide resources for educational stakeholders to understand and learn about data privacy, security practices, confidentiality, and management of student information (Shen, Chen, & Su, 2017). PTAC provides updated practice guidelines, training materials, and direct assistance with security, privacy, and confidentiality concerns.

A comprehensive security program provides public organizations with critical protection tools to safeguard confidential student records. Solutions and procedures that address data security operations within public academic institutions require employee compliance. To ensure that a security plan contributes to students' data protection, the institution should offer a program that offers clear guidelines and tools for implementing security measures and encourages compliant behaviors in all employees (Dominguez, Ramaswamy, Martinez, & Cleal, 2010; Hagen & Albrechtsen, 2009; Parsons et al., 2014; Stewart & Lacey, 2012). By referring to PTAC, schools will find programs, procedures,



and guidelines that comply with FERPA as an approach for student data protection solutions. Several categories that PTAC identifies that comply with FERPA include the following:

- **Policy and governance:** Develop a data governance plan to implement policies and standards that clearly identifies staff responsibilities for maintaining data securely and provides the necessary material to increase employee awareness.
- **Personnel security:** Public organizations should conduct regular checks and training to ensure employees understand data security protocols and require employees to participate in policy training to ensure confidentiality remains current.
- **Mobile devices:** Any personal information stored in servers or mobile devices such as smartphones and laptops require encryption to prevent unexpected exposure of data caused from lost or stolen devices.
- **E-mailing confidential data:** The use of e-mail to transfer confidential information poses a high-security risk, which PTAC does not recommend organizations to practice. Safe alternative practices to protect sharing of personal data include mailing paper copies using secure carriers, desensitizing data before processing, and encrypting all electronic files.
- **Incident handling:** If an incident occurs, then public academic institutions require maintaining a procedure to contain and fix the problem. Appropriate roles and actions from users, security personnel, and managers require proper understanding of safety procedures (PTAC, 2015).

Public academic institutions that focus on implementation of effective training procedures that comply with FERPA decrease the vulnerability of data breaches.

Implementing privacy information security policies that provide hands-on education and guidance increases employees' recognition of critical information safety protocols (Siponen, Mahmood, & Pahlila, 2014).

### **FERPA Compliance**

All public academic institutions must maintain FERPA guidelines to ensure that faculty and staff manage student information safely. Unfortunately, even though the federal law requires public institutions that receive funding to comply with the guidelines, all too frequently public schools misunderstand the FERPA guidelines (McDonald, 2015). FERPA consists of several regulations, procedures, trainings, and exceptions, which institutions need to comprehend to maintain a data-safe environment. State and federal laws routinely update the requirements for administrators of public academic institutions to remain current. Administrators who are not aware of FERPA updates may lead employees to incorrect assumptions and decisions that can create costly errors (McDonald, 2015). Informed administrators and employees reduce accidents in the public school while maintaining legal compliance. When FERPA content is updated, the verbiage may cause employees to misunderstand the complex federal law. Ramirez (2009) validated this statement by stating that FERPA guidelines and verbiage cause employees in institutions to misunderstand complex terminology. The complexity of FERPA laws and concepts makes employee training imperative to increase awareness. Nevertheless, complying with FERPA laws proves challenging for an institution to establish protocols to safeguard student data (Ramirez, 2009).

Employees who are unaware because of not receiving adequate training may ignore FERPA regulations, creating vulnerability issues. Typically, employees practice

what they understand, and without suitable knowledge of FERPA, workers will not know how to comply with the federal law when sharing student information. Southern California public schools must require training for employees to be familiar with FERPA guidelines. Although the U.S. federal government requires all public institutions that receive funding to comply with the guidelines, the responsibility for training employees rests on the administrators of the public schools (Buchanan, 2009). Employee awareness depends on the administration's willingness to provide effective training procedures that comply with FERPA and maintain student information safety. The Family Policy Compliance Office (FPCO) provides several different types of FERPA training materials that serve to enhance employee awareness. The different training programs through FPCO provides several options to protect student information.

Monitoring proper safety training procedures that comply with FERPA allows for a public organization to select the best fit program that serves to improve its employees' awareness. Public schools need to assess the level of awareness that employees have for FERPA guidelines to reduce the risk of violating federal law. Faculty and staff who fail to comply with FERPA laws create liability issues and considerable consequences. Therefore, it is imperative that administrators who implement training procedure programs in Southern California public schools must fully understand FERPA laws to properly assist in employee awareness.

### **FERPA Employee Awareness**

The familiarity of school staff with FERPA regulations depends on different factors, such as educational level, consistent exposure, requirement for employment, and in what format they are receiving FERPA training. Even with individuals understanding

what FERPA stands for, many administrators, faculty, and staff do not fully understand what information may be released and to whom (Turner-Dickerson, 1997).

Consequently, employees who work in public academic institutions and do not understand FERPA laws increase the chance of violating the federal law. Werosh (2013) noted that violation typically occurs when faculty and administrators perform their jobs without understanding much about the FERPA guidelines, and these employees do not intentionally or maliciously expose student information.

Faculty and staff members in public academic institutions nationwide do not maintain sufficient knowledge of FERPA regulations. Gilley and Gilley (2006) demonstrated that 41.8% of public academic institutions' employees indicated that they are not familiar with FERPA guidelines, 29.4% indicated slight familiarity, 26.5% indicated moderate familiarity, and 2.3% indicated extensive familiarity with FERPA. At the time of this study, FERPA training remains a concern for public academic institutions. Sikolia and Biros (2017) noted that 47% of organizations do not have a FERPA training program and those that do demonstrate that 53% of employees do not receive adequate information. The Oklahoma State Regents for Higher Education (2008) Task Force conducted a study in which the results indicated that public academic schools did not maintain an adequate FERPA regulation practice. This lack of knowledge only spells potential disaster for those schools without proper FERPA training policies in place. The data from previous studies indicated that a large number of employees in public academic institutions lack FERPA awareness and the repercussions are seriously placing students' personal information in jeopardy.

Several studies indicated that most public academic institutions do not provide employees with training procedures related to FERPA regulations (Oklahoma State Regents for Higher Education, 2008; Sikolia & Biros, 2017). Sikolia and Biros (2017) stated that the few institutions that adhere to FERPA regulations only present the federal law to employees without offering or requiring an in-depth training program that matches an employee's learning preference to increase awareness. With minimal information on FERPA and a lack of proper learning style training, an employee's level of understanding will continue to be minimal. Ultimately, employees who do not receive proper training will continue to increase the chances of violating FERPA laws, leading to dire consequences for the individual and institution.

Many public academic institutions struggle with increasing the level of FERPA compliance, and even more fail to incorporate an adequate training program that matches an employee learning style (Fleming, 1995). Furthermore, these problems occur because of insufficient disciplinary actions (Oklahoma State Regents for Higher Education, 2008). If public academic institutions violate FERPA and a student files a complaint with the U.S. Department of Education (DOE), the consequences might cause the institution to reconsider implementing a training program that complies with FERPA. Any investigation that the DOE conducts and finds evidence of violating FERPA will result in the loss of government funding. Ramirez (2009) noted that the risk of losing government funding increases administration's urgency to familiarize themselves with FERPA.

According to Jones (2008), public schools do not regularly evaluate their training procedure programs to ensure that highly satisfactory FERPA understanding exists among employees. Jones validated this concern by stating that administration and

professional staff members should provide employees with FERPA training that will maximize their level of awareness. When adequate training procedure programs increase, data breaching incidents decrease (C. C. Chen, Shaw, & Yang, 2006). The responsibilities of implementing a FERPA training that matches employees' learning styles fall directly on the public schools.

The current data indicate the need for proper FERPA training and an increase in understanding how best to deliver training to public institutes (Gilley & Gilley, 2006). Gilley and Gilley (2006) discovered that most public school employees do not fully understand FERPA requirements. Furthermore, Gilley and Gilley indicated that none of the public academic institutions provided adequate communication or training to employees regarding FERPA. From the institutions that did maintain some sort of FERPA training procedure, administration failed to maintain an updated training program that complied with the federal law. New employees may not grasp, retain, or increase FERPA awareness if the current FERPA training does not fit the employees learning preference. Understanding employees' preferred learning style is as important as identifying adequate FERPA training programs. As new employees enter the workforce, FERPA training should be evaluated for effectiveness among new workers.

FERPA law has guidelines to assist administrators of public schools in increasing individual awareness of the federal regulations. One of the guidelines is notifying parents and eligible students annually of their rights under FERPA (Protecting Student Privacy, 2010). Furthermore, notifications to individuals should include special letters, inclusion in PTA bulletins, student handbooks, and newspaper articles. FERPA leaves the decision

of how best to increase awareness of the public and employees to the discretion of each school.

### **FERPA Training**

All public organizations at some point or another encounter problems and require administration or government involvement to find a solution. Originally, FERPA's main objective involved focusing on the systematic issues within the institution. According to Graham, Hall, and Gilmer (2008), the federal government implemented FERPA to specifically address the systematic issues of an organization. FERPA guidelines initially did not address the violation issues found when employees or public schools share students' private or personal information to unauthorized users. The loss of government funding serves as a punishment to public schools for failing to comply with FERPA regulations (Sen & Borle, 2015).

Nevertheless, online programs used by public schools to ensure reduction of safety issues can potentially cause breaching of students' information. The American Association of Collegiate Registrars and Admissions Officers (AACRAO) provides professional development, guidelines, leadership in policy, standards, interpretations, and best practices for public academic institutions. Furthermore, AACRAO's (n.d.) best practices for public academic institutions include but are not limited to management of records, enrollment management, and admission. AACRAO offers a variety of training procedures, safety materials, and other information that relates to FERPA. AACRAO's (2006) FERPA training guide provides public schools with guidance to improve their employees' knowledge of the federal law in maintaining student information safety.

AACRAO (2010) suggested that public academic institutions should notify all students about the FERPA guidelines to increase awareness within the institution.

DOE's FPCO states that public institutions require appropriate training procedures that will identify authorized users and deny other recipients from receiving any students' personal information (Family Educational Rights and Privacy; Final Rule, 2000). The federal law recommends that public academic institutions take a proactive approach and ensure that all procedures within the institution do not violate students' personal information by wrongfully releasing data to unauthorized users (Protecting Student Privacy, 2010). Public academic institutions' responsibility for ensuring proper practice requires the administrator to enforce a training program that complies with FERPA and provides proper employee awareness. Before granting anyone access to students' personal information, employees from public academic institutions must understand the eligibility of the requesting party and understand any exceptions that may exist (DOE, 2015). Many professional organizations offer public school training procedures and suggestions on how to comply with FERPA. Some of the other organizations that contribute in supporting employee awareness of FERPA compliance include the National Association of Student Personnel Administrators (NASPA), the National Association of Student Financial Aid Administrators (NASFAA), the Association of International Educators (NAFSA), and the National Association for College Admission Counseling (NACAC).

Campbell and Rodriguez (2011) provided training materials for public academic institutions to support compliance practices with FERPA. FERPA 101: FERPA Basics provides individuals working in public academic institutions with guidance to understand



FERPA regulations. Numerous training guides and resources provide valuable information to improve employee awareness and understanding of FERPA regulations. The availability of different training programs and awareness material serves to reduce violations of FERPA guidelines and maintain employees to be constantly on alert for any incidents that require compliance with the federal law.

Nevertheless, with a large variety of FERPA training programs available for public institutions to select, training effectively remains a continuing concern. As previously stated, not everyone learns the same, requiring public schools to identify training programs that will better benefit employees by matching their learning style.

As a result, Southern California public schools would benefit from administrations seeking out available programs for FERPA training that would benefit the entire institution. Implementing a FERPA training program to increase employee awareness provides a safety net. Many third party, for-profit, and even nonprofit organizations offer training and services that assist public academic institutions to sustain FERPA compliance including Higher Ed Hot Topics, Jossey-Bass, Inside Higher Ed, Innovative Educators, and Audio Solutionz LLC.

In his book *FERPA clear and simple: The college professional's guide to compliance*, Ramirez (2009) provided guidelines that can assist public academic institutions to increase awareness based on his experience with FERPA. Furthermore, the literature offered details on what type of training procedures public schools can implement. FERPA regulations contain complex concepts that individuals may struggle to understand even though the book provides clear directions to help all employees understand the federal law. Creating and implementing a training program that increases

information security and privacy awareness can be a challenging, frustrating, and daunting task. Upper management in public academic institutions must first understand FERPA regulations and maintain suitable knowledge to create, implement, and train employees in safeguarding student data. Furthermore, administrators who fail to understand the gravity of not implementing a proper training procedure can increase the vulnerability of improperly disclosing students' personal information. According to Herold (2010), providing employees with useful directions in public academic institutions provides benefits that will outweigh consequences for not complying with the federal law.

Administrators in public academic institutions should implement a training program that matches an employee's learning style to develop his or her FERPA understanding. Public academic institutions must continue safeguarding students' privacy and making it a high priority because the community invests its trust in the public schools. The need to examine the different training formats that match employees' learning preference in public schools allows for greater understanding of how to improve compliance with FERPA. In 2005, a study conducted at a public institution in Ohio provided analytical information on privacy disclosure procedures (Hudson, Kneeland, Leach, & Ledbetter, 2005). Hudson et al. (2005) indicated that some public academic institutions contained a current and adequate FERPA policy but failed to put the regulations into practice. The study demonstrated the need for administrators' involvement by taking appropriate steps to increase compliance with FERPA. Furthermore, the research demonstrated that good FERPA compliance cannot exist

without implementing an appropriate training program. Appropriate training affects employees' knowledge level of FERPA law.

Nucci (2010) conducted a FERPA research study to examine the knowledge level of employees and found that public academic schools required further understating of the federal law. This study echoed the need for compliance of FERPA regulations through adequate consistent training programs in public schools. Institutions require collaboration and communication between administration and employees for training programs to successfully comply with FERPA regulations and avoid the legal issues associated with noncompliance. School administrators may consider implementing and overseeing training that does match the employee's learning style to prevent gaps that can lead to legal issues. The success of the organization depends on the direction the administration team takes to facilitate the employees' level of understanding FERPA laws.

Most importantly, FERPA training revolves around educating everyone by matching his or her learning style in maintaining personal information safe. Public academic institutions must comply with FERPA laws and cannot avoid or delay implementing proper training procedures to ensure the proper protection of students' personal and private information. Avoiding legal consequences and minimizing community concerns when enrolling students into a public academic institution is a priority.

Maycunich (2002) explained that unsecured gaps exist between understanding what employees know about FERPA and retaining knowledge of the regulations. Moreover, Maycunich stated that the obligation rests on the administration team to

provide relevant information that complies with FERPA regulations. Working for a public institution that follows the FERPA guidelines requires all employees who manage personal information to hold some responsibility in properly understanding the federal law. Cantrell (2013) also stated that administrators essentially should hold the responsibility of providing adequate training to everyone that works or attends the public school. Implementing adequate training provides individuals with sufficient education to decide how to properly manage students' personal information (Cantrell, 2013). Furthermore, with proper exposure to FERPA training, employees increase automatic habits that reduce uncertainty and errors when recipients request sensitive information. The responsibility to provide a compliant FERPA training procedure to employees to increase awareness must be taken seriously to avoid damage to both the institution and the community. A suggestion is to add a discussion of public administration accountability and responsibility such as who is accountable and who is ultimately responsible.

### **FERPA Training in Public Academic Institutions**

Several studies indicate that most public academic institutions do not sustain an adequate FERPA compliance training program. Maycunich (2002) validated that public schools realized the importance in implementing and maintaining a FERPA compliance training program. Since the introduction of FERPA, there have been many modifications and updates, which left public academic institutions pondering the complex law (Sayer, 2005). According to Maycunich (2002), faculty and staff require FERPA training and should merge with registrars, legal counsel, and human resources to ensure compliance. Furthermore, Maycunich suggested that to ensure FERPA guidelines get increased

exposure, administration should not only verbalize the guidelines with employees at meetings or written e-mails but also include the guidelines in the faculty handbook. Maycunich also recommended that all employees must take a FERPA training course to ensure that exposure to the federal law exists in the public academic institution.

Increasing knowledge and understating of FERPA will provide increased assurance that employees understand the consequences of violating the federal law. According to Shellenbarger and Perez-Stearns (2010), understanding FERPA and increasing employee knowledge provide the necessary tools for employees to fairly and safely manage students' personal and private information. Communication and regularly ensuring that everyone in the public academic institution understands the FERPA laws avoid potential violation. Garrett (2014) reaffirmed the need for constant communication for employees to understand what FERPA compliance consists of and how to prevent federal violations. Any changes to FERPA regulations must be communicated to the entire institution, including students, to ensure that everyone understands and remains aware of the federal law. According to Garrett, the importance of good communication within the public academic institution ensures that FERPA regulations remain current when amended.

Public schools implement FERPA training procedures based on what administration believes best matches the organization (Northern Illinois University, n.d.). Some public schools introduced online training courses or modules and information training websites to increase employee awareness of FERPA regulations. Other public school administrators do not invest much time in training programs but instead notify employees of the law and expect FERPA compliance (Northern Illinois University, n.d.).

Requiring public academic institution employees to take part in online training can serve as an efficient and cost-effective way to provide FERPA training.

### **Approaches to FERPA Training at Colleges and Universities**

The University of Illinois utilizes an online tutorial and quiz from the Registrar's website to ensure that employees review any change to the guidelines before gaining access to student records (Northern Illinois University, n.d.). Interestingly, this strategy provides constant exposure and forces employees to learn the FERPA guidelines before accessing and releasing students' personal information. The University of Arizona's Registrar's Office also offers an online web course to educate faculty and staff about FERPA regulations. Similar to the University of Illinois training program, the University of Arizona requires faculty and staff to provide verification of completing a 20-minute course before receiving access to the student information system (University of Arizona, Office of the Registrar, n.d.).

The University of California Los Angeles (UCLA) also utilizes an online tutorial and quiz before any employee can access students' personal information (UCLA Registrar's Office, 2017). California Lutheran University utilizes a Blackboard online course module to provide FERPA training regulations to faculty and staff. According to Alexander, Mercer, and Naginey (n.d.), the Associate Provost and Registrar at California Lutheran University required everyone to complete the FERPA tutorial and quiz before obtaining any student data. Additionally, any faculty and staff member who fails to meet the minimum passing score must retake the FERPA training quiz until the employee passes the quiz. Even if an employee gains access to student data, the verification approval may be revoked, and faculty and staff must retake the quiz. This precaution

includes all employees who attempt to access any student data requiring them to successfully pass the online quiz before granting access (Alexander et al., n.d.).

New York University (NYU) uses a similar online training that involves FERPA video and tutorial. NYU employees must complete and pass the FERPA course quiz before given access to the student information system (Gironelle, 2012). The University of Medicine and Dentistry of New Jersey utilizes an online FERPA tutorial that requires employees to pass a quiz. When employees complete the online training an auto-generated e-mail goes to their supervisor and Registrar's Office (Nelson, as cited in Cantrell, 2016). As with the other universities, only employees who passed the FERPA training quiz can access the student information system. The American Catholic University (ACU) requires employees to take an online FERPA training and successfully pass the quiz at the end of the course. Southern Methodist University (SMU) requires all employees to complete and pass the FERPA training quiz and provide a note in their annum performance review (Papari, 2012).

Even with different training programs implemented by public academic institutions, a glaring gap exists. The use of online FERPA training modules for accessing student records is a useful tool to reduce employees exposing confidential records. However, the dependency of technology can decline an employee's understanding of FERPA laws because memorizing answers does not mean comprehension. Furthermore, in emergency situations, employees cannot go through an online training FERPA module to have access to information. Situations where employees must make drastic decisions require workers to know and understand FERPA laws without the assistance of a computer. Ultimately, a thorough literature indicates that

institutions develop and implement a variety of FERPA training manuals, online modules, courses, and tutorials and quizzes for faculty and staff to understand federal regulations before they access a student's personal information. Public schools must understand the importance of maintaining informed employees who can take appropriate decisions in an emergency and not depend solely on technology.

Research indicates that numerous public schools maintain some sort of training procedure that complies with FERPA (Fry, 1999). Unfortunately, many other public schools do not maintain a training program that complies with FERPA. Despite institutions implementing a training program that complies with FERPA, participation remains the key element in ensuring that public school employees sustain adequate understanding of the federal law. In 2005, a study conducted at a university in Ohio provided analytical information on privacy disclosure procedures (Hudson et al., 2005). Hudson et al. (2005) indicated that the university in Ohio contained a current and adequate FERPA policy but failed to put it in practice. Southern California public schools can benefit from the Hudson et al.'s study by not just complying with FERPA but also putting training into practice. Despite implementing FERPA training programs, not enough information is known about the effectiveness in matching learning styles and employee understanding of FERPA regulations.

### **Training Procedures**

Several agencies published literature that promotes and encourages public academic institutions on the importance of training exercises to develop FERPA awareness and compliance in employees (Oregon Task Force on School Safety, 2019; Thrower et al., 2008; DOE, 2010; Virginia Tech Review Panel, 2007). DOE (2007)



indicated the importance of training employees to successfully implement a data safety plan in a public academic institution. Public school employees essentially need to understand data safety procedures to maintain awareness and compliance with FERPA. Continually conducting a safety program procedure that matches an employee's learning habits greatly increases employee awareness in data safety.

According to DOE (2010), the more training employees obtain and implement, the better the public institution can respond, adapt, and remain effective. Institutions that constantly exercise safety procedures increase employee awareness and allow individuals to identify weaknesses and gaps. According to Silberman and Biech (2015), the best form of training involves being active and engaging, not lecture based. Public academic institutions can make different types of active and engaging training that include seminars, drills, tabletop exercises (TTX), functional exercises (FE), and full-scale exercises (FSE; EPA, 2011). Providing constant training that matches an employee's learning style allows him or her to maintain a higher level of awareness and ensures that skills remain active (DOE, 2010).

A variety of trainings exists that public schools can utilize to train public employees on FERPA guidelines. Some of the training that public schools can utilize include the following:

- **Seminars.** This can benefit auditory, visual, or read/write learners depending on how the seminar is conducted. Seminars allow public academic employees the opportunity to participate and discuss new or updated plans, policies, or procedures related to safeguarding student data.

- **TTX.** This training can benefit auditory learners because discussion is the primary means of training. TTX provides individuals with the opportunity to discuss a scenario and apply the best approach for an institution to respond and recover.
- **Drills.** This can benefit kinesthetic learners because they are engaging in drills. The drill involves coordinating and supervising a mock practice session to prepare people for situations such as a data breach attack. Drills involve a limited number of public academic staff and community partners collaborating to respond to a scenario (Harvey, 2011).
- **FE.** Similar to a drill, but FE involves several staff members from different public academic institutions and community partners to respond to a simulated event using FERPA guidelines and procedures.
- **FSE.** Involves multiple agencies and jurisdictions to examine collaboration between all individuals and systems (DOE, 2010). This form of training requires cooperation and planning between agencies that allows a public academic institution the opportunity to test the institution's data safety procedure (Zdziarski, 2006).

The need to implement training and awareness procedures that match an employee's learning style allows for public academic institutions to better prepare employees to safeguard student data. Furthermore, public academic institutions must update their training procedures to remain current with FERPA guidelines and emerging threats. Training that relies on the use of technology only can pose a concern when employees must make quick decisions when disclosing and/or accessing student information. Employees must be aware of FERPA through the use of technology as well

as without the assistance of a software. Employees capable of retaining FERPA at a higher level reduce the risks of FERPA violations within public schools.

The Virginia Tech tragedy in 2007 demonstrates the need for adequate training procedures and employee awareness. On April 16, 2007, a single shooter killed 32 students causing panic throughout the Virginia Tech campus and as a result, unaware employees violated FERPA. Faculty and staff did not have the adequate training to comply with FERPA guidelines (Northern Illinois University, 2008; Virginia Tech Review Panel, 2007). The Virginia Tech incident demonstrates several concerns involving safeguarding data. Employees unaware of the FERPA guidelines may refuse to share information or willingly provide information at the moment of a chaotic emergency situation such as the Virginia Tech shooting. After the Virginia Tech shooting, DOE acknowledged that the school administrators did not understand the emergency exceptions under FERPA (Chapman, 2009). FERPA permits disclosing of information in emergency situations, but the public academic institution failed to comply with the data protection federal law.

Furthermore, during the event, many people reported that personal information was displayed (Vieweg, Palen, Liu, Hughes, & Sutton, 2008). The public academic institution that failed to comply with FERPA guidelines risks losing funding from DOE.

Ultimately, public academic institutions require implementing a training procedure for FERPA; however, the schools need to determine what type of training exercises best fit an organization's employees. Not one training procedure will fit all Southern California public schools because each school has different employees who learn differently and operate the organization differently. Because each public school has

different workers who learn differently, the institution should evaluate and implement proper planning and strategies that adapt to how employees best capture and retain FERPA laws. Every public school maintains a unique structure and employees with different levels of understanding that require a training procedure that best fits an organization. DOE indicates that training exercises should fit and relate to the organization's objective. Before administration decides what type of exercise to facilitate, a public school should consider various factors including time, resources, and collaborative support required to execute a training (DOE, 2010).

Universities that implement some type of training procedure to address data protection and employee awareness decrease exposing student personal information to unauthorized users. However, implementing a training that matches the employees' learning style can increase FERPA understanding. According to Catullo (2008), appropriate training safety procedures demonstrate a significant change in institutional performance.

### **Security Culture**

For privacy security awareness to shape the strategic planning process, education must start at the upper level of the organization (Kwon, Ulmer, & Wang, 2013). A data awareness program that complies with FERPA provides employees with appropriate privacy information security training that positively reduces threats and promotes participation in security compliance behavior (McCrohan et al., 2010). Impactful training requires employees to understand the organization's privacy security procedures and sustain a significant level of security compliant behavior (Abraham, 2012; Benham, 2011; Eminağaoğlu et al., 2009; Kim & Homan, 2012; McCrohan et al., 2010). Research

indicates that strong and effective security awareness training requires constant repetition of materials and privacy security discussions (Kim & Homan, 2012).

Additionally, training employees by exposing them to FERPA materials that they can best learn increases automatic habits that reduce uncertainty and errors when recipients request sensitive information. Daily repetition in employees' learning styles not only provides individuals with constant exposure but also provides the continual act of practicing safety procedures that establish a natural routine. According to Kimwele, Mwangi, and Kimani (2011), constant evaluation, updates, and revision of implemented private information security programs increase effectiveness. The responsibility to provide a compliant FERPA training procedure to employees to increase awareness must be taken seriously to avoid damage to both the institution and the community.

Ultimately, providing employees with privacy security awareness training that matches their learning style serves as a critical element in building an organizational culture of data safety (D'Arcy & Greene, 2014; da Veiga & Martins, 2014). Employee exposure to private information security protocols and procedures requires a developed culture in the organizations that focuses on the importance of private security awareness training (AlHogail, 2015; D'Arcy & Greene, 2014; da Veiga & Martins, 2014; Munteanu & Fotache, 2015). The effectiveness of private information security policies implemented by academic institutions depends on the end user following protocols (Y. Chen et al., 2012; Ifinedo, 2014). The literature points to three recommended areas for organizations to increase and improve FERPA compliance; these areas include but are not limited to resources, training, and procedures. AACRAO provides training materials

that practitioners can utilize to train public academic institutions, but without taking action, little progress can occur.

Public academic institutions that constantly practice and implement new and updated training procedures that match employees' learning style can eventually develop a culture that transfers to employees. The structure of an organization depends on the level of interest both employee and employer practice. Moreover, communication plays a critical role in establishing an effective FERPA environment because administration begins the conversation, but employees need to continue it. Constant participation from upper management, faculty, and staff fosters teamwork that continues to build and eventually foster the growth of a safe organizational environment.

### **Learning Styles**

Everyone learns and comprehends information differently, and an organization or public institution cannot solely rely on one form of training. Employees who receive training or information that match their learning preference tend to retain more information than obtaining material that does not match their learning style. As a result, an organization that offers proper and effective training provides the necessary tools that allow employees to succeed. A well-prepared workforce reduces the possibility of violating federal laws such as FERPA. All public schools must comply with FERPA regulations, which require employees to maintain and understand federal laws. As a result, all public organizations have implemented different training programs to ensure that FERPA laws are understood and followed. Failure to comply with FERPA will result in a loss of federal funds, an increase in lawsuits, and a decrease in reputation. Every public school that must comply with federal laws provides different forms of

FERPA training to its employees. Several universities, such as the University of California Los Angeles (UCLA), provide employees with an online FERPA training module that tests employees before allowing them to access any student's personal information. Furthermore, public schools also offer seminars, workshops, and other programs to increase employees' levels of FERPA understanding. However, because not everyone learns the same way, there is no one FERPA training program that matches all employees' learning styles.

### **Defining Learning Styles**

According to Dunn, Dunn, and Price (2009), learning styles are defined as the methods by which people begin to process, recognize, concentrate, understand, and retain new information. Regardless of the FERPA training program public institutions offer employees, it should match their learning style. Individuals' ability to understand information materializes when their preferred method of learning is provided rather than when the focus is on providing one type of learning approach (Willingham, Hughes, & Dobolyi, 2015).

Sarasin (1999) defined learning styles as "the preference or predisposition of an individual to perceive and process information in a particular way or combination of ways" (p. 3). People are capable of retaining content more efficiently when individuals receive information that matches their learning preference. The human brain is capable of capturing content more feasibly when it is delivered to an individual's learning preference. According to Sarasin, intelligence can be understood through the exploration of an individual's learning style.

Grasha (1995) described learning styles as the idea that how an individual learns will match his or her given preference of thinking. Therefore, how people think and act relates to how they will capture details of their experience, the different environment, and information.

### **Learning Style Theories**

The different learning style theories researchers have analyzed and published allow both future scholars and public organization employers to examine them. Different scholars have interpreted learning styles and conducted research that supports the idea of providing information that matches an individual's learning preference. Providing an individual with materials that match his or her way of best retaining information allows for greater understanding of a subject, training, and important content. Learning styles serve to be useful to any organization because not all employees learn and retain information the same way. FERPA is a federal law that requires all public institutions to follow it and employers to maintain a proper training program. The use of learning style theories might guide public organizations to implement a tailor-made FERPA training compliance program that best fits the institution. Forcing people to comprehend laws and regulations through one learning style base program leads to failure because not everyone retains information in the same manner.

Public schools differ from one another for many reasons, but one major difference depends on the individuals who are hired. Challenges in training individuals emerge when attempting or keeping people engaged. Over the years, society has introduced different ideologies to understand and explain how one best learns. Not everyone learns the same way, which scholars have found different methods in which individuals learn



and retain information. In addition, individuals' learning behavior depends on different factors. As a result, the history of learning and training individuals provides a vast amount of literature that explains the different types of learning styles that scholars have analyzed.

### **Analytical Physiology**

In the 1920s, Carl Jung founded the learning style ideology known as analytical physiology (Center for Applications of Psychological Type, n.d.). Carl Jung believed that individuals have their own perspective way of doing things. Jung (as cited in Center for Applications of Psychological Type, n.d.) stated that "if people differ systematically in what they perceive and in how they reach conclusions, then it is only reasonable for them to differ correspondingly in their interests, reactions, values, motivations, and skills" (p. 1). Jung's analytic psychology theory focused on the four basic learning types:

1. Extraversion versus Introversion
  2. Sensation versus Intuition
  3. Thinking versus Feeling
  4. Judging versus Perceiving
- **Extraversion:** Extraverted learners prefer to develop ideas and enjoy socializing and working in groups. Activities that benefit extraverted learners include teaching through collaborative/group work and problem-based learning.
  - **Introversion:** Introverted learners prefer to learn and solve problems on their own. Introverted learners embrace ideas through brainstorming, theoretical exploring, and personal reflecting. These learners prefer abstract ideas, study in solitary, and individual work.

- **Sensation:** Sensing learners mainly focus on the physical environment. Sensation learners gravitate to realistic and practical thinking because they rely on data obtained from experience. The sensing learning style prefers order and routine.
- **Intuition:** Intuitive learners prefer to consider ideas, potential outcomes, and search possibilities. In addition, intuitive learners typically require instructional assistance, time, and patience. Intuition learners are daydreamers, unorthodox, and innovators.
- **Thinking:** A thinking learner tends to focus on the function and structure of information and objects. The thinking learners solve problems and make decisions through rational and logic assessments. These learners often base decisions on their personal opinions.
- **Feeling:** Feeling style learners base their decisions on emotions and feelings. In addition, individuals with feelings typically gravitate toward personal relationships, feelings, and social gatherings. As a result, feeling learners best learn when they experience feelings and emotions.
- **Judging:** A judging learner prefers to make firm decisions without considering alternative choices. Additionally, judging learners do not analyze circumstances or learn before taking actions. Judging learners prefer to learn best when they plan out activities and schedules.
- **Perceiving:** Perceiving learners tend to make quick decisions whenever new information and changing situations occur. In addition, perceiving learners maintain an open mind and change their decisions. Perceiving learners tend to have wondering minds and cannot finish what they start.

## **The Myers-Briggs Type Indicator**

Jung's theory influenced other scholars to analyze and study learning styles. The Myers-Briggs Type Indicator is a learning style that was influenced by Jung. The Myers-Briggs Type Indicator distinguishes 16 different types of learning styles. In addition, the Myers-Briggs Type Indicator is a self-report questionnaire that allows individuals to identify how they perceive decisions and their surroundings (Center for Applications of Psychological Type, n.d.). Understanding how people think, act, and process information allows employers to implement training materials that can maximize how an employee retains information.

Honey and Mumford (1982) developed a learning style questionnaire that allowed individuals to identify how someone best learns. This questionnaire provides administrators and individuals with the knowledge needed to create and implement materials that can assist with content retention. The four learning style types that Honey and Mumford developed include activist, theorist, pragmatist, and reflector learners (Honey & Mumford, 1982).

- **Activists:** Activist learners prefer to learn when carrying out activities rather than listening to instructions. Experience plays a crucial role in how activist learners retain information. In addition, activists learn when they role play, have group discussion, and brainstorm.
- **Theorists:** Theorist learners prefer to learn when models, ideas, and hypotheses are used to explain a situation. In addition, the theorist learns best with activities that include stories, statistics, quotes, and through theoretical concepts.

- **Pragmatists:** A pragmatist learner prefers to learn by contemplating how to solve problems through discussions and case studies. These individuals enjoy experimenting with new ideas and methods to attempt to see if something works.
- **Reflectors:** A reflector learner best learns by watching and thinking carefully about situations. In addition, reflector learners prefer to analyze various alternative perspectives, gather information, and use the best option to approach a situation.

Gregorc (1979) developed the mind styles model, which uses perceptual and thinking processing modes to identify one of four learning preferences. According to Gregorc, individuals can derive from one of four learning styles that include concrete sequential, abstract sequential, abstract random, and concrete random.

- **Concrete sequential (CS):** A CS learner prefers silence, precise directions, proper practice, and order. Furthermore, a concrete sequential learner embraces recognition for work done and can perform tasks in a practical manner.
- **Abstract sequential (AS):** An AS learner prefers reading, following common procedures, working alone, and researching. Furthermore, an AS learner enjoys lectures, logical explanations, and accepts facts.
- **Abstract random (AR):** An AR learner prefers to work in groups, maintain a balance of social activities, and remove competition. In addition, an AR learner embraces learning that is personalized, receive emotional support, and cannot work alone.
- **Concrete random (CR):** A CR learner prefers to take chances, have a trial-and-error approach, and brainstorm. Furthermore, a CR learner enjoys hands-on experience, works independently, and acquires unorthodox solutions.

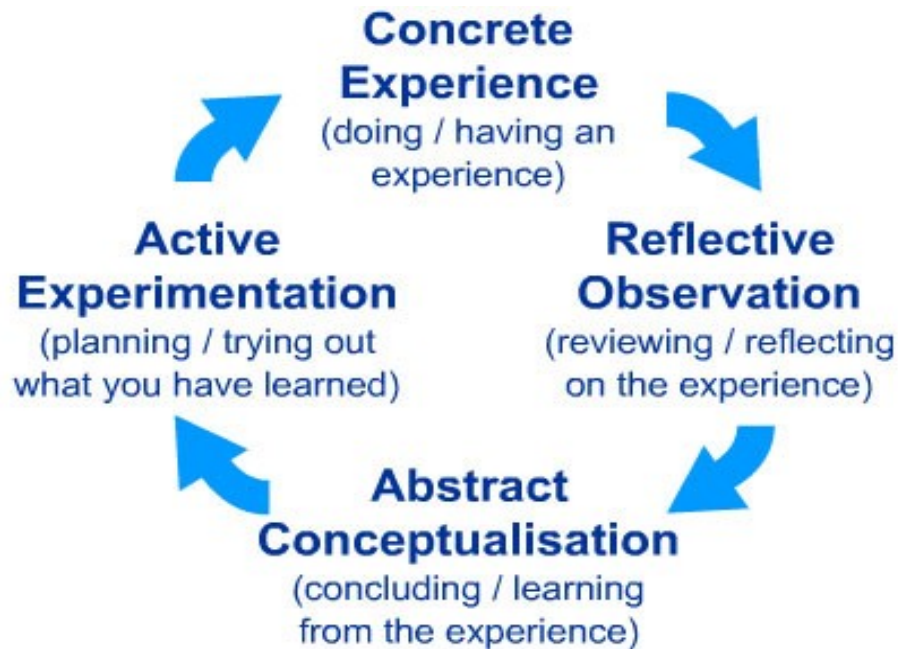
## Kolb's Four-Stage Learning Cycle

A learning style depends on the individual's ability to learn and capture information. Kolb (1984) noted that shaping individuals' learning styles includes experiencing stable patterns of behavior and not developing personal traits.

The author developed a learning style model based on the experimental learning theory. Kolb (1984) explained a four-stage model that includes concrete experience, reflective observation, abstract conceptualization, and active experimentation.

- **Concrete experience (CE):** This stage includes experiencing new situations and learning from different experiences and relating to individuals.
- **Reflective observation (RO):** The second stage involves individuals observing others or reflecting on the new experience. This allows the individuals to observe before making a decision.
- **Abstract conceptualization (AC):** The third stage enables individuals to think and analyze new ideas or modify existing concepts. Individuals comprehend situations based on logical analysis of ideas and act based on the understood situation.
- **Active experimentation (AE):** The final stage enables individuals to apply the new experience observed. Employees gain abilities by practicing learned skills achieved from prior experiences and understand by observing situations.

Kolb's learning theory in Figure 1 demonstrates the four-stage cycle of how individuals comprehend information, which allows employees to apply what they understood from the FERPA training.



*Figure 1.* Kolb's four-stage learning cycle. From "Kolb—Learning Styles," by S. A. McLeod, 2013 ([http://cei.ust.hk/files/public/simplypsychology\\_kolb\\_learning\\_styles.pdf](http://cei.ust.hk/files/public/simplypsychology_kolb_learning_styles.pdf)).

Learning styles continue to appear in various public institutions because everyone learns differently. The learning styles are important to this study because all employees do not learn the same way. Effective training requires administrators to implement a FERPA compliance training program that increases federal law understanding for the organization and the individual members. Administrators would benefit by identifying the preferred learning styles of their employees. Recognizing learning styles serves to implement a training program that best fits the members making up the institution by allowing employees to absorb knowledge, retain information, and/or develop skills naturally.

### **The Different Types of Learning Styles**

Kolb's (1984) theory serves as one of the main instruments to approach learning styles within public institutions. From Kolb's leaning theory model, other models

emerged that focused on the learning styles of individuals. Different scholars and researchers have identified at least eight different types of learning styles that include auditory, visual, read/write, kinesthetic, linguistic, naturalist, social, and solitary learners. Each learning style, while different, represents how individuals best capture and retain information.

- **Visual:** Visual style is defined as a learning technique where someone prefers to capture and retain information through pictures, images, charts, maps, graphs, and diagrams. The visual learning style is one of several learning styles in the Fleming (1995) VAK/VARK model.
- **Auditory:** An auditory style is defined as a learning technique where someone prefers to capture and retain information through sound, listening, speaking, and music. The auditory learning style is one of several learning styles in the Fleming VAK/VARK model.
- **Read/Write:** A read/write style is defined as a learning technique where someone prefers to capture and retain information through reading books, seeing letters, writing, and following text. The read/write learning style is one of several learning styles in the Fleming VAK/VARK model.
- **Kinesthetic:** A kinesthetic style is defined as a learning technique where someone prefers to capture and retain information through hands-on experience, internship, work, and any activity that includes sense of touch. Kinesthetic learning style is one of several learning styles in the Fleming VAK/VARK model.
- **Logical:** A logical style is defined as a learning technique where someone prefers to capture and retain information through reasoning, math, and using numbers.

- **Naturalist:** A naturalist style is defined as a learning technique where someone prefers to capture and retain information through exploration and an open environment. This learner requires to be free to explore and recognize similarities and differences. Similar to the kinesthetic learner who requires feeling, touching, and exploring his or her surroundings, naturalist learners struggle to learn within a classroom setting.
- **Social:** A social style is defined as a learning technique where someone prefers to capture and retain information through groups, communication, and other people. This learner gains understanding from others' experiences.
- **Solitary:** A solitary style is defined as a learning technique where someone prefers to capture and retain information by self-studying and working independently from others. This learner best gains understanding with isolation rather than a group setting.

Every learning style differs from the others. However, some learning styles are a combination of two styles. As a result, no one program can possibly address every employees' learning style, which requires public institutions to explore FERPA training programs that match employees' learning preferences. Theories of learning style suggest that individuals better retain and understand information when choosing a learning style that contributes to retention (Cassidy, 2004).

### **Visual, Auditory, Read/Write, Kinesthetics (VARK)**

Fleming's (2001) VAK/VARK model was founded on Kolb's (1984) theory and refined it by identifying four types of learning styles including visual, auditory,



reading/writing, and kinesthetic learning. The four learning styles that are pertinent to this study include VARK learning styles.

People generally sustain a preferred learning style that may involve one or a mixture of the four VARK learning styles. Employees in public schools must comply with FERPA regulations by learning when sharing of student information can and cannot occur. Administrations implement FERPA compliance training programs to increase employee awareness and to understand federal law. In congruence with contingency and learning styles theory, one type of FERPA training program does not fit everyone. Sreenidhi and Helena (2007) validated that an individual's learning style preference allows for better understanding when training programs match people's learning style. Ultimately, administrators must understand the type of FERPA training programs that best fit the individuals in their school. Assessing how employees best learn, understand, and retain information allows public schools to properly identify a FERPA compliance program that may increase federal law awareness.

Therefore, one type of FERPA training style will not work for all public schools because each institution differs in employees' style of processing and retaining information. To further understand how a particular learning style best suits an individual, the meshing hypothesis provides additional clarification.

The meshing hypothesis explains that an individual will learn best when taught in a method that is appropriate for his or her learning style. The meshing hypothesis is defined as the matching of an instructional program relevant to an individual's learning preference. The meshing hypothesis states that the best form of capturing information is by providing training instructions that match the preferences of the learner (Pashler,

McDaniel, Rohrer, & Bjork et al., 2008). Learning style conveys the idea that the optimal understanding of an individual requires a training tailored to match his or her learning style (Dunn et al., 2009; Dunn, Griggs, Olson, Beasley, & Gorman, 1995; Dunn, Ingham, & Deckinger, 1995). Therefore, forcing a single learning task on individuals that does not match their learning style reduces the possibility of higher retention.

Lujan and DiCarlo (2006) conducted a psychological research study at Wayne State Medical School in Michigan that examined preferred learning styles of 1st-year medical students by observing how they performed when their preferred learning styles were applied. The results of the study indicated that most medical students learned effectively when information presented to them matched their learning style (Lujan & DiCarlo, 2006). Furthermore, some students struggled to understand subjects unless given information that matched their preferred learning style (Lujan & DiCarlo, 2006).

### **Learning Style Perspectives**

Learning styles can become a cycle, which means that an individual best learns through one type of learning preference and adapts to that type. Throughout their education, people tend to gravitate to learning that is presented in their preferred learning style. Once individuals are in a comfortable situation, it becomes difficult for them to alter their way of learning or doing things. As a result, individuals teach how they best learn rather than adapting to how others learn. According to Sarasin (1999), it is common for teachers to prefer teaching in their own preferred learning style.

Administrators can also demonstrate bias in selecting materials that fit their style for their diverse staff. Other times, training programs are suggested by an organization or other program developers. These suggested programs may result in how they think employees

will learn best rather than customizing a training program that best fits the public institution, which will aid employees to retain greater information. As Sarasin stated, many teachers adapt teaching techniques that match their learning preference and not on how students learn best. Similarly, organizations and other program developers suggest training programs that match their learning preference and not the employees' learning styles. Ultimately, institutions must understand that not everyone learns in the same manner and should consider implementing a training that benefits the employees' content retention. Implementing a training program that matches the administrator's learning preference may result in inadequate training for the entire organization. The idea is to ensure that a training program maximizes employee content retention and does not suggest it because it is the least expensive, least time consuming, or most feasible to implement.

This study used Fleming's (1995) VARK model because it focuses on the most common styles of learning, including visual, aural/auditory, read/write, and kinesthetic. Moreover, this study further modified Fleming's model by using only audio to assess how well auditory learners retain information compared to the other learning styles. Audio training is one of the most inexpensive methods and one of the primary dominant forms of delivering training to employees working in public institutions.

Fleming and Bonwell's (2001) VARK learning style model establishes the notion that an individual's characteristics and preferred ways of gathering and retaining information consist of either visual, aural/auditory, read/write, or kinesthetic styles. The VARK learning style model utilizes the learning preferences that deal with perceptual modes that focus on how individuals retain and export information (Fleming, 1995). The

use of the learning style model served as a guide to examine employees' understanding of FERPA when training matches their learning preference.

### Concept Map

To assist in explaining this study, a concept map provides a visual understanding of the literature. Figure 2 demonstrates the learning style theory, which requires a public academic institution to implement a FERPA program that best increases employee awareness. Failure to maintain a FERPA compliance program leads to data breaches, wrongful disclosure of personal information, and loss of government funds.

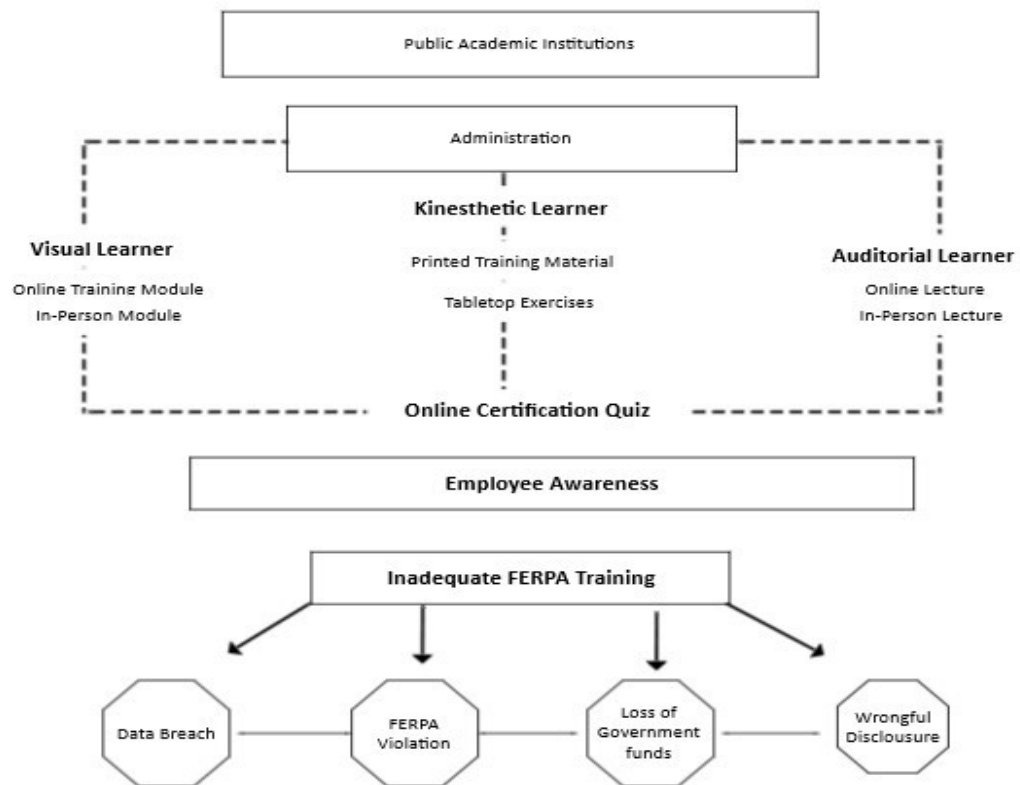


Figure 2. FERPA compliance concept map.

## **Conclusion**

All public institutions that receive government funding must implement a program that complies with FERPA regulations. Inadequate FERPA training programs do not improve employee awareness, which leads to vulnerabilities in public schools. Various research validates that not all public academic institutions maintain an adequate FERPA training program. Furthermore, the PTAC and for-profit organizations offer several data protection options to help public schools reduce FERPA violations. Proper FERPA procedures avoid lawsuits and a forfeit of government revenue. As discussed previously, the learning style theory supports this research because not everyone captures and retains information the same. Ultimately, employees who receive FERPA training that matches their learning preference should have a higher level of understanding of federal laws. One type of program, policy, or method does not work for all public schools, but each institution requires a FERPA program that best matches the learning styles of its employees. Learning style plays an important role in retaining FERPA regulations because each school's employees may need different training programs that match how they learn. The study examined how learning styles affect employees' level of FERPA understanding in Southern California public schools. Examining the use of FERPA training that matches the employee's learning style will allow understanding of the extent to which a learning style can influence the level of federal law retention.

### CHAPTER 3: METHODOLOGY

Public schools that receive federal funding must comply with all federal laws and regulations. The federal Family Educational Rights and Privacy Act (FERPA) protects students' personal information from unauthorized users. As a result, the federal law requires all public organizations that receive government funding to have proper FERPA compliance training. The purpose of this study was to examine whether a FERPA-sponsored training that matches the employee's learning style preferences increases the level of understanding FERPA protocols. This study also investigated how a FERPA training that matches employees' learning style impacts schools' overall FERPA compliance level.

A convenience sample of any full-time and part-time teachers and supporting staff employees in public schools was used in this study. This study used a quantitative method approach to examine whether a relationship between FERPA compliance training programs in public schools and employees' learning styles existed. A booklet for this research study was created by the researcher so that the participants could smoothly navigate through each of the components. The booklet for this study included a visual, aural/auditory, read/write, and kinesthetic (VARK) questionnaire and a FERPA quiz. The VARK questionnaire (see Appendix A) is available electronically from the official VARK Learn Limited (n.d.-b) website. The FERPA quiz (see Appendix B) is available from the Santa Monica College (2017) website.

At the information and orientation session conducted by the researcher, the participants were gathered together in an available room provided by the school's principal. The faculty room, the library, the auditorium, and a random available

classroom were used to conduct the study. This research study was broken down into three steps in order to conduct the group comparison study. The first step was for the participants to take the VARK questionnaire found in the booklet that was created by the researcher. The VARK questionnaire has 16 questions used to determine what learning style each participant prefers. The second step was to play a recorded MP3 audio FERPA training presentation on a portable loud speaker to all of the participants. Neither the participants nor the researcher was aware of the preferred learning style of each participant. The final step was for all of the participants to take the FERPA quiz found in the research study booklet immediately after the FERPA audio (see Appendix C) training concluded. The booklets provided a feasible method to collect all the data from participants and analyze how a FERPA training that matches an employee's learning style impacts his or her federal law retention level. Finally, this chapter describes the methodology in several sections including the introduction, research questions, research design, population, and sample. The latter part of the chapter includes the instruments, data collection, data analysis, and conclusions.

### **Purpose Statement**

The purpose of this study was to examine whether a FERPA-sponsored training that matches the employee's learning style preferences increases the level of understanding FERPA protocols. It is hypothesized that if the training style does not match the employees' preferred learning style, there is the possibility that FERPA policies and procedures are not adequately learned and used, especially when it is appropriate for an employee to reveal or disclose confidential information and when there are exceptions. Inadequate FERPA training is a concern for any public organization,

especially when employees must know when to reveal, disclose, or provide exceptions when sharing confidential information. Initially, this study examined public school's employees' level of FERPA retention by examining how employees best understand and learn information.

### **Research Questions**

1. To what extent does FERPA training that matches an employee's learning style affect an employee's retention level of FERPA training?
2. To what extent does FERPA training that does not match an employee's preferred learning style affect an employee's retention level of FERPA training?

### **Hypotheses**

**Research Null Hypothesis (RH0):** Learning styles have no effect on FERPA training.

**Alternative Hypothesis (RH1):** Gearing FERPA training to a person's learning style will increase his or her retention of FERPA and their FERPA compliance scores.

The hypothesis for this research study was the idea that providing FERPA training that matches a person's self-identified learning style will increase his or her comprehension of FERPA procedures and protocols and lower FERPA violations for the organization.

### **Research Design**

This study involved 10 Southern California public schools that consisted of 305 participants. Selection of participants was from a convenience sampling because individuals are feasibly accessible in the public elementary schools that participated in the research study. Gall, Gall, and Borg (2007) noted that a convenience sampling provides greater opportunity to locate a sufficient number of participants who can



participate in a study. There were 10 Southern California public schools that agreed to participate in the study, and the 305 participants were employed by one of the 10 school districts. The participants in the study included full-time and part-time faculty and staff employees.

Each public school was contacted through e-mail, phone, and in person. The objective when contacting each Southern California public school was to ensure confidentiality, the freedom to allow participants to withdraw from the study at any time, and to inform participants of the importance of the research study. Each public elementary school was told that the entire study would last approximately 40 minutes to 1 hour max with no follow-ups, all participants would gather together in an available room within the school, and participants would use a research study booklet to conduct the study. Furthermore, the researcher explained to each public school contacted that all booklets did not include any area that could be used to identify participants or schools. All booklets used in the study were generic and shuffled into a box making it impossible to identify who participated and from what school.

The point of contact included the public school's principal and the superintendents of each district contacted within Southern California. Unfortunately, contacting principals and superintendents through e-mail did not provide any results. Contacting principals through phone and meeting them in person proved to be the most effective method to obtain consent signatures from principals and a superintendent. The researcher called 125 public schools in Southern California. Of the 125 public schools the researcher contacted, only 10 public schools agreed to allow the study to take part in their school. A brief meeting was scheduled with all principals and the superintendent

who agreed to participate in the study to discuss the study in greater details and obtain their signatures in the informed consent form (see Appendix D). The main obstacle the researcher encountered while contacting principals and superintendents was that many public schools' employees were going on strike and could not grant permission at that time.

To gain a deeper understanding of how a learning style can impact an employee's federal law awareness through a FERPA training program, a quantitative method was used. Using a quantitative method approach involves collecting and analyzing statistical data. The next sections define and explain the research paradigm.

### **Quantitative Research Method**

A quantitative method approach is appropriate for this study because the data collected can be replicable through instruments such as tests or questionnaires (Harwell, 2011). Quantitative methodology focuses on measurable variables such as statistical numbers and percentage. The quantitative method approach allows researchers to better understand how numerical results measure employees' awareness. Ultimately, numerical analysis allows a researcher to obtain statistical results that can be tested to gain a depiction of the FERPA compliance training programs' retention in public schools.

This quantitative method approach uses a sequential exploratory design as a research guide. The sequential exploratory design is one of several designs used in quantitative method research that integrates a strategic approach for a study. This survey research design was selected for this study because the model approaches the research through the use of a questionnaire. The cross-sectional survey design is used to collect

data at one point in time and allow a researcher to analyze an individual's beliefs, attitudes, practices, and opinions.

The quantitative approach collected data from a questionnaire and the FERPA certification quiz to obtain a statistical number. This allowed the researcher to use the numerical data and determine whether there is any correlation between learning styles and FERPA awareness and retention. Creswell (2013) noted that a survey research design provides an investigator the tools to analyze quantitative data through questionnaires, surveys, and open-ended questions on an entire population of people in order to describe their attitudes, behaviors, opinions, and/or characteristics. The purpose of using a quantitative approach for this study was to assist in explaining and interpreting how learning styles impact public school employees' FERPA retention through the statistical data.

Kraemer (1991) identified three parts in a survey research. The first part in the survey research is to use a quantitative method to describe specific aspects of a population. The second part in the survey is to collect the data needed for the research from people. The final step in the survey research is to use the data collected to analyze the results and refer back to the selected portion of the population. In this study, the use of a booklet consisted of a VARK questionnaire and a FERPA quiz, which were used to collect quantitative data. Using a VARK questionnaire identified the learning styles of each employee within the participating public schools. In addition, the VARK questionnaire was used to group all participants together to compare how a learning style impacted retention when given training that matches a preferred learning style. Ultimately, the data collected from participants served to analyze and determine how

much auditory learners retained FERPA federal laws compared to visual, read/write, and kinesthetic learners.

### **Population**

The population used to conduct this study included 10 selected public schools within Southern California that agreed to take part in the research. The public schools that were targeted were in the county of Los Angeles in Southern California. Specifically, the cities that were in the research study included Los Angeles, Huntington Park, Pasadena, Hawthorne, and Norwalk. The county of Los Angeles consists of a diverse population of approximately 10,000,000 residents (Romero & Deasy, 2017a, 2017b). The Southern California public schools that were in this research study included the TEACH Preparatory Elementary School, TEACH Academy of Technologies, TEACH Tech Charter School, KIPP Iluminar Academy, KIPP Academy of Innovation, Ramona Elementary School, Dr. Sammy Lee Medical Elementary School, James Madison Elementary School, Lakeland Elementary School, and Walnut Park Elementary School.

An e-mail was sent to each of the Southern California public school principals and superintendents in the cities of Los Angeles, Huntington Park, Downey, Cerritos, Pasadena, Hawthorne, Norwalk, Compton, Lakewood, Whittier, Pico Rivera, Monterey Park, La Cañada, Montebello, Santa Monica, Beverly Hills, Torrance, Lawndale, South Gate, Bell, Bell Gardens, Cudahy, Costa Mesa, Manhattan Beach, Redondo Beach, and Altadena. Unfortunately, e-mails did not provide much result. However, calling each public elementary school principal and superintendent proved to be the most effective method to recruit participating schools. After calling over 125 schools, only 10 public

schools agreed to participate. Following the phone call, a brief meeting was made to meet with each principal and one superintendent to discuss the study in more details and have the informed consent signed.

The public schools that did participate served as the location from where individuals were selected to take part in the study. The individuals selected for this study included faculty and staff employees from within the public schools. In addition, the faculty and staff employees who were selected from public schools worked with students and in different occasions must access and share students' personal and confidential information.

The faculty and staff members in the public schools included job titles such as teachers, teacher assistance, clerk, secretary, manager, internships, and any employee who had access to students' personal and private information. All participants involved in the study included employees who directly have access to students' personal and private information. Participants included both full-time and part-time employees. The participants within the institutions were selected using a convenience sampling because the individuals were feasibly located in the public school.

Participants eligible for inclusion in this study were full-time and part-time employees who have access to students' personal and private records. In addition, all participants in this research whose VARK questionnaire results identified them as an auditory learner or any other learning style were included in the study. Participants with multiple learning styles were also included because each learning style was examined and compared with the results of participants who exhibited an auditory learning style preference.

Participants not eligible for this research study included volunteers and employees who did not have access to students' personal and private records. Furthermore, any participant who did not complete the questionnaire that identified their learning style was excluded from the study. The intent of this research study was to examine how participants with an auditory learning preferred style performed with FERPA training that matched their learning style in comparison to those individuals who did not match their preferred way of learning.

### **Sample**

The sample group for this research study included current public school teachers and supporting staff. These sample groups were targeted because they were exposed to students' personal information and handle or manage confidential information. Administrators were not included in this study because it could jeopardize the willingness of the employees to volunteer. This study is voluntary and anonymous, which is why public school administrators were not part in this study to avoid creating pressure among workers to take part in this study. From all participating public schools, there were 305 participants who combined included teachers and supporting staff members.

### **Instrumentation**

The instruments used for this study included the researcher's designed booklet and a recorded MP3 FERPA audio training that was played using a portable speaker. The researcher's designed booklet included a 16-question VARK questionnaire available from the VARK Learn Limited (n.d.-b) website and a 20-question FERPA quiz available from Santa Monica College (2017). Converting the electronic VARK questionnaire and FERPA quiz to a hard copy made it practical for participants to complete both the VARK

questionnaire and FERPA quiz. The recorded MP3 audio training was a 15-minute FERPA training that participants listened to after completing the VARK questionnaire. The purpose of using the VARK questionnaire was to collect, analyze, and provide results of each of the participants' preferred learning style. Following the questionnaire, a 15-minute audio FERPA training was played, which participants were only allowed to listen to. Immediately after the audio training, all participants took the FERPA quiz located in the booklet. The purpose of the FERPA quiz was for the researcher to identify the results of each participant after they heard the audio FERPA training. The booklet assisted the researcher to sort the auditory learners in one group and nonauditory learners in another group. The audio FERPA training and the FERPA quiz were used to determine the extent of information that the auditory learners retained compared to nonauditory learners.

### **Data Collection**

The first step was contacting the principals and scheduling a time, date, and location within the school to conduct the research study. Once participants entered the scheduled room to conduct the research study, all participants received a research study booklet along with a consent to participate form. Participants who agreed to participate read and signed the consent form. Any participant who did not agree to participate was free to exit the room. The second step of the methodology was to determine what type of learning style employees possessed in each public school. To accomplish this, a booklet, which included the VARK questionnaire, was given to participants. The questionnaire assisted to (a) identify what learning style best matched each participant and (b) provide an auditory sample group to compare results to other learning styles. All participants

were anonymous and could terminate the study at any time. The VARK questionnaire consisted of questions that were designed to identify how participants best learn.

Although participants did not know their results because it was an anonymous study, the researcher did offer a link or an electronic booklet to participants if they wished to redo the study on their own. The VARK Learn Limited (n.d.-b) website allows individuals to use a hard copy or their online questionnaire to take the test. Having the VARK test accessible online allowed the participants to take the questionnaire again if they wished to know their learning style results. This allowed participants to remain anonymous and still know their learning style since taking the VARK questionnaire was done on their own time and had nothing to do with the study.

Upon completing the VARK questionnaire from all participants, the researcher analyzed the results and sorted out auditory learners from nonauditory learners. All participants from all the schools were combined to further maintain the study as anonymous.

### **VARK Questionnaire**

#### **Questionnaire**

The questionnaire used in this study is from the VARK Learn Limited (n.d.-b) website, which provides questions to identify an individual's learning preference. The VARK questionnaire was located in the booklet that the researcher provided to participants within the Southern California public schools.

#### **VARK Questionnaire**

Participating employees took the VARK questionnaire using a research study booklet provided by the researcher. VARK Learn Limited (n.d.-b) also offers a hard



copy of the VARK questionnaire, which participants could complete. The VARK questionnaire consists of 16 questions that have been developed by VARK Learning Limited to assist individuals in identifying people's learning styles. A VARK link was provided to the administration of the public school to share with all the faculty and staff who participated in the study. The link generated from VARK Learn Limited allowed employees to take part in a VARK questionnaire. Upon completing the questionnaire, results were provided by VARK Learn Limited, which the researcher collected. In certain cases, the VARK questionnaire was offered as a hard copy, which participants could complete. All hard copy VARK questionnaires completed were calculated using the VARK Learn Limited website to analyze and determine the results of each booklet.

### **Validity and Limitations**

Dr. Walter Leite from the Research and Evaluation Methodology program at the University of Florida conducted a study on the validity of VARK (Leite, Svinicki, & Shi, 2010). The paper provided evidence of the validity of VARK for measuring learning preferences and also presented its limitations (Leite et al., 2010). Psychometric analyses data were used to evaluate the dimensions and parameters that factor in learning styles. Many studies have showed a statistically significant achievement with individuals who receive instruction that matches their learning styles (Leite et al., 2010). Leite et al. found that a four-factor correlated trait–correlated method (CTCM) model and a reliability estimate of VARK were adequate. A testlet is a set of questions that are frequently used in achievement tests such as Test of English as a Foreign Language (TOEFL) and Medical College Admission Test (MCAT) to measure how an individual scores. Leite et al. described the limitations in the findings as preliminary because not all

supported the CTCM model and VARK learnings styles. These limitations may be due to different factors, as Leite et al. (2010) stated, such as latent constructs that are not accounted for by the model and/or unobserved by mixture of population. Altering how research is approached to target the limitations of learning styles may provide additional data to understand and examine mixed learners and an expanded population. Ultimately, the preliminary evidence of validity of VARK scores with respect to dimensionality and reliability found in Leite et al.'s study supports the use of the VARK as a low-stakes diagnostic tool.

### **FERPA Training Exercise**

DOE, American Association of Collegiate Registrars and Admissions Officers (AACRAO), or other accredited third-party websites provided similar or identical FERPA training material that included auditory, visual, hands on, and other methods. For the purpose of this study, only audio training material was used. The FERPA audio training lasted approximately 15 minutes and consisted of FERPA laws, regulations, procedures, and exceptions. Public school employees who consented and agreed to participate in this study took part in the FERPA training exercise. Participants congregated in a large available room within the school where employees listened to the audio training. Both auditory and nonauditory learners received the same training in this study. Therefore, the FERPA training material used was the same for all participants. No other training was used in this study except for an audio FERPA training. This allowed for the researcher to compare an auditory learner who received matching learning style training to those whose learning preference did not coincide with their learning style. The audio FERPA training used in this study consisted of an MP3

recording without an image present. The audio FERPA training provided by DOE served to conduct the study. The recorded MP3 FERPA audio training was played using a portable wireless loud speaker. This audio FERPA training was played following the completion of the VARK questionnaire.

Throughout the study, none of the participants were made aware of their learning style to prevent jeopardizing the study. All participants listened to the 15-minute FERPA training and were not allowed to take notes or use a pen. Participants were asked to relax and listen closely to the FERPA training and attempt to remember as much as they could during the training. The purpose of this part of the study was to understand how much information auditory learners and nonauditory learners can retain FERPA laws.

Immediately after the 15-minute audio FERPA training concluded, all participants began the FERPA quiz

### **FERPA Quiz**

Following the FERPA training exercise, participants took the FERPA quiz to examine (a) the number of participants in all groups who met the minimum FERPA compliance and (b) analyze the average percentage score in both groups. For this study, the Santa Monica College (SMC) FERPA quiz was used to determine employees' understanding of federal laws. The SMC FERPA quiz was found inside the booklet that the researcher provided to all participants.

According to the SMC FERPA quiz, participants must achieve a 70% score to meet the minimum compliance score. The purpose of conducting the FERPA quiz was to determine which group scored at a higher percentage: employees who received FERPA training that matched their learning style or employees who took the FERPA training that

did not match their learning style. At the conclusion of the FERPA quiz, all data were analyzed using a *t* test. The results provided the average percentage score from employees who received FERPA training that matched their learning style compared to individuals who received FERPA training material that did not match their learning style. The FERPA quiz provided by SMC in the booklet served to conduct and provide results of each participant. A copy of the FERPA quiz was available electronically or as a hard copy from SMC. The FERPA quiz provided by SMC consisted of 20 official FERPA questions. Once participants completed the FERPA quiz found in the booklet, they were instructed to leave their booklet in a box and were free to exit the room. The purpose of having the FERPA and the VARK in the booklet was to maintain both participants' learning styles and scores together. Additionally, the booklet served to keep participants anonymous.

### **Data Analysis**

The research study booklet contained both the VARK questionnaire and the FERPA quiz data. The data results of the VARK questionnaire served to understand what type of learning style that employees learned best to. Combining the learning styles of the employee and the FERPA training program served to examine a correlation. According to the learning style theory, people retain information best when individuals receive instruction that matches their learning style. Therefore, employees whose learning style matched the public school's FERPA training program should maintain a higher understanding of the federal laws than a worker whose learning style did not match the public academic institution's training program.

The quantitative data collected from participants' FERPA quiz were analyzed using an analysis of variance (ANOVA). The ANOVA provided the best quantitative data approach in analyzing the sample groups through the use of statistical examination. Furthermore, an ANOVA is most commonly used with small sample sizes to test for differences between sample groups. Borden (n.d.) noted that the use of a dependent sample ANOVA allows researchers to compare two groups' scores and their means. After participants completed their FERPA quiz, an ANOVA served to measure the different scores of the group who received training that matched their learning style and the second group who did not obtain training that correlated with their learning style. The research study identified the independent variables as audio training. Furthermore, the dependent variable was identified as FERPA test scores. The use of the VARK questionnaire, FERPA audio training, and FERPA quiz provided further understanding of whether a FERPA training that matched the preferred learning style improved an employee's level of understanding of FERPA laws.

### **Limitations**

Factors that limited this study, although minimal, did not impact this research, which included instruments used and mixed learners sample size. The limitations of using a convenience sample is the potential biased data gathering and no generalization results. This study specifically used audio instruments and targeted auditory learners but did not collect any data using visual, read/write, and kinesthetic instruments. This did not greatly impact the study because this research primarily focused on auditory learners and how nonauditory learners scored when receiving audio training. The findings of this research study found that there were several mixed learners who exhibited two types of

learning preferences. Some participants expressed their learning preference to contain auditory and another type of learning style. These participants were a small group compared to the other participants who had only one dominate learning preference. The sample size of these participants was minimal and could determine how training that contained one type of learning style impacted mixed learners. This limitation did not impact the study because the primary study focus was on investigating one dominant learning style. Future studies can focus on investigating the impact on training that focuses only on visual, read/write, kinesthetic, and mixed learners.

### **Validity and Reliability**

Kvale and Brinkmann (2009) defined reliability in research questionnaire methods as “the consistent and trustworthiness of research findings; it is often treated in relation to the issue of whether a finding is reproducible at other times and by other researchers” (p. 245). The validity of the study depends on the ability to replicate the research study and eliminate extraneous information. Therefore, reliability must take into consideration the following factors:

- Audio-recorded data must be reliable.
- Trustworthy data and the interpretation of results must remain a top priority.
- Scores must be replicated to that of other schools in different regions.

This study included a VARK questionnaire, which had been used by different scholars to conduct their own research. According to the VARK Learn Limited (n.d.-a) website, 58% of users accurately received a matching learning style. The VARK questionnaire consisted of 16 questions that determined what type of learning style each employee possessed. Based on the questionnaire provided by VARK, the results

determined what learning style existed in each public academic institution. The federal FERPA training audio material in this study had been used by numerous public institutions to train employees. Furthermore, past researchers have used federal FERPA training materials to conduct their own study. Lastly, the FERPA quiz in this study was used by SMC to test their employees.

Quantitative data can be examined through the use of a  $t$  test to measure and prove this study's hypothesis or affirm an alternative hypothesis. The results of a  $t$  test from the quantitative data served to evaluate the ratio of the difference between groups. In this case, the results served to evaluate how employees scored on the FERPA quiz after taking a training that either matched or did not match their learning style. This ratio is known as the  $t$  value, which corresponds to the  $p$  value (Borden, n.d.). Cramer and Howitt (2004) noted that a  $p$  value of .05 or less is generally considered reliable (statistically significant). Ultimately, when the alpha level of 5% has a  $p$  value that is significant, this represents that the null hypothesis can be rejected because there is a confidence level of 95%. Furthermore, the lower the  $p$  value, the research study will demonstrate that the difference or relation between groups does not occur by chance.

### **Summary**

Providing public school employees with a FERPA training program that matches their learning style is hypothesized to increase the level of understanding of FERPA laws. Public institutions that do not provide their employees with training that match their learning preference can affect how someone learns best. Ultimately, public school employees who received FERPA audio training that matched their learning style are hypothesized to have a higher overall score than the participants who received the same

training but did not match their learning style. This study examined how effective a training can be when a FERPA training matches a public school worker's learning style. Furthermore, the research served as a study that demonstrated a possible benefit for public institutions to best train and increase their employees' level of understanding of not only FERPA but also other laws, regulations, and policies. The hypothesis for this research study was the idea that gearing FERPA training to a person's learning style will increase his or her retention of FERPA and their FERPA compliance scores.

The alternative hypothesis for this study was that learning styles have no effect on FERPA training. Everyone learns and understands information differently, so this can be addressed when designing training for FERPA compliance in public schools. Insufficient FERPA compliance training programs and ineffective exposure to the federal law impact the employees' understanding of protocols. Different federal laws and policies that public academic institutions require are for their employees to not only follow but also understand them. To understand whether training that matches a learning style is effective and then investigating it required an in-depth analysis to determine a conclusion. Therefore, public academic institutions that implement FERPA training programs that match employees' learning style should have a greater level of retaining and understanding of federal laws.



## CHAPTER 4: RESEARCH, DATA COLLECTION, AND FINDINGS

### **Overview**

This research study examined how learning styles impacted the level of retention among public school employees when listening to an audio Family Educational Rights and Privacy Act (FERPA) training. The study attempted to demonstrate that participants who received training that matched their learning style(s) had a greater chance of retaining information than those participants who did not receive training that matched their learning style.

This chapter explains in detail the importance of the study and the findings that resulted from collecting and analyzing the data. It is categorized into different sections that include the purpose statement, research questions, research methods and data collection procedures, and presentation of all of the analyzed data.

### **Purpose Statement**

The purpose of this study was to examine whether a FERPA-sponsored training that matches the employee's learning style preferences increases the level of understanding FERPA protocols. It is hypothesized that if the training style does not match the employees' preferred learning style, there is the possibility that FERPA policies and procedures are not adequately learned and used, especially when it is appropriate for an employee to reveal or disclose confidential information and when there are exceptions. Public schools must maintain an appropriate FERPA training, especially when employees manage, store, and handle sensitive information that can impact not only the students' safety but also the school. Failure to properly train employees can create an unsecure environment, which can lead to an employee unintentionally revealing or

disclosing confidential information. Furthermore, in certain situations where FERPA provides exceptions, employees must understand that students' information can be disclosed. Any information that reaches the hands of an unauthorized user can lead to several consequences for the student and the school. Students' personal information could be used fraudulently, which could impact the students' records and future. Schools that fail to comply with FERPA have the risk of losing all federal funding. Furthermore, schools can be sued by the victim for inappropriately safeguarding the student's personal information. As a result, all public schools that receive government funding from the U.S. Department of Education (DOE) must comply with FERPA regulations, which require public schools to implement a training program to fulfill legal obligations. Preventing negative consequences and the loss of millions of dollars can be reduced or prevented by maintaining proper and adequate training for public school employees. Ultimately, investigating how employees retain information is important to understand in order for public school administrators to implement an effective FERPA training program. Understanding training compliance procedures and academic employee perceptions of protecting information allows for increased awareness and identification of security threats within an organization. Recognizing the type of FERPA training given and employees' learning preference in public academic institutions allows for a better federal law compliant organization.

This study examined 10 public schools in Southern California to understand how employees' level of FERPA retention is impacted by how they receive FERPA training. The selected participants took a visual, aural/auditory, read/write, and kinesthetic (VARK) questionnaire, audio training, and a FERPA quiz. The selected population

consisted of two groups who included faculty staff and classified staff within Southern California public schools. The results of this research serve to provide an extensive understanding of how learning styles impact the way employees better retain and understand FERPA laws.

The study should assist administrators of public organizations to consider learning styles when developing and implementing effective training programs and policies that impact the community, especially because not everyone learns and retains information the same way. The research also can serve as a collection of data that will provide additional information for further research into policy data protection within public organizations.

### **Research Questions**

To better understand how FERPA-compliant training and procedures have an impact on learning styles implemented in Southern California public schools, the following research questions served to guide the study:

1. To what extent does FERPA training that matches an employee's learning style affect an employee's retention level of FERPA training?
2. To what extent does FERPA training that does not match an employee's preferred learning style affect an employee's retention level of FERPA training?

The research questions used in this quantitative method study serve to examine a relation, if any, between an employee's learning preference and how a FERPA training is delivered. The information gathered in this study can serve as a reference for future research studies to expand on FERPA awareness procedure training programs in Southern California public schools.

## Hypotheses

To comprehend the questions presented, one must understand how individuals prefer to process information and then analyze the data. Everyone learns differently; some gravitate toward visual information while others prefer receiving information through auditory, read/write, or hands on. When individuals receive training or any type of information that matches their learning style, their level of retention improves. Participants who receive training that does not correlate with how they best learn experience a reduction of comprehending information. Participants naturally gravitate to information that matches their learning style, which when doing so allows participants to feasibly retain more information.

This study investigated the two research questions and their hypothesis to understand how a FERPA training that matches an individual's learning style impacts his or her ability to retain information. All the data collected provided an answer that supports research null hypothesis or the alternative hypothesis: Research Null Hypothesis (RH0) and Alternative Hypothesis (RH1).

Employees who can retain vital information reduce the probability of a worker violating federal laws in a public organization.

Gearing FERPA training to a person's learning style will increase his or her retention of FERPA and their FERPA compliance scores

**RH0:** Gearing FERPA training to a person's learning style will increase his or her retention of FERPA and his or her FERPA compliance scores.

**RH1:** Learning styles have no effect on FERPA training.

Everyone learns and understands information differently, which requires appropriate FERPA training to increase awareness in public academic institutions. As a result, the hypothesis for this research study states that gearing FERPA training to a person's learning style will increase his or her retention of FERPA and their FERPA compliance scores.

The alternative hypothesis for this study is that learning styles have no effect on FERPA training. The results in this study will provide information for administrators in public institutions and a roadmap to assist them when implementing a training program in their organization. Southern California public schools that implement effective training programs promote the notion that properly informed employees will reduce careless accidents and reduce violating policies, regulations, and laws.

### **Research Methods and Data Collection Procedures**

To conduct this study, several parts were needed in order to collect and analyze the data, answer the research questions, and support the hypothesis. The creation of a booklet and an audio FERPA training provided the foundation for this research study. The booklet consisted of two sections: the VARK questionnaire and a 15-minute FERPA audio training. The VARK questionnaire, which includes 16 questions designed to identify the participants' learning style, was obtained from the VARK Learn Limited (n.d.-b) website. The second part of the booklet includes a 20-question FERPA quiz found in either the Santa Monica College ([SCM], 2017) website or the FERPA (2009) website. The FERPA quiz was designed to test the participants' understanding of FERPA laws and regulations. The SMC website also contained a presentation and information that is associated with the FERPA quiz. The information was narrated into a

15-minute audio FERPA training MP3 file using Microsoft PowerPoint audio recording. This 15-minute audio FERPA MP3 file was saved onto a small micro-USB flash drive and inserted into an MP3 player, which was connected to a small portable speaker.

Ultimately, the purpose of using these tools was to use the first part of the booklet to identify what style of learning a participant exhibited followed by the FERPA audio training, which participants only listened to. At the conclusion of the FERPA training, participants took the FERPA quiz found in the second part of the booklet. These tools served to investigate participants' learning styles and later analyze the level of retention that all four learning style groups (visual, aural/auditory, read/write, and kinesthetic) exhibited. Furthermore, the tools provided added support when presenting this study to school principals, superintendents, and public school employees. The booklet and the audio FERPA training provided clear directions of how the study works, which increased the willingness of individuals to participate.

The second part of the research method involved locating participants to take part in the study. This step provided a challenge because different approaches were used in order to obtain a sufficient number of participants. The first attempt included sending out an e-mail to public school principals and superintendents that introduced the researcher, the study, and the purpose for containing them. Unfortunately, this method was not effective because recipients did not reply or opted not to take part in the study. The reasons that many superintendents and public school principals declined participating in the study included the following:

1. They were unable to accommodate a time and date for the study.
2. Their busy schedule meant that many e-mails went unanswered.

3. They were leery about e-mails asking to conduct a study at their school.
4. They forgot to reply to e-mails.
5. Teachers were going on strike.

After several failed attempts using e-mail to contact principals and superintendents, personally calling them proved to be the most effective method. The researcher personally called 125 public schools within the county of Los Angeles to introduce himself, the study, and what the purpose of the call entailed. Certain schools were contacted multiple times because those principals and superintendents were not available. Messages were left on the principals' and superintendents' answering machines and also with their secretaries. Unfortunately, leaving a voice message or a note with the secretary resulted in only a 10% return call. Constantly calling to request to speak to the principals and superintendents proved to be the most effective method. Speaking to the principals and superintendents was the best method because it allowed the researcher to not only properly introduce himself but also explain the study in detail. Furthermore, asking to schedule a meeting with the principal and superintendent provided 99% of the participants to agree to take part in the study. Scheduling meetings with principals and superintendents allowed the researcher to demonstrate the booklet and how the study worked, but it also provided credibility. Meeting in the same room also allowed both the researcher and the school principal or superintendent to find an appropriate time, date, and location to conduct the study.

Of the 125 public schools and superintendents contacted, only seven individuals signed and agreed to participate in the study. These seven participants included six public school principals and one superintendent. The superintendent supervised four

schools, which added four more public school principals. The seven participants together provided the researcher with a total of 10 public schools. Once approved by the Institutional Review Board (IRB), the researcher followed up with all seven administrators to schedule a date, time, and location to conduct the study. The majority of the public schools provided 30 minutes to 1-hour windows to conduct the study during their weekly faculty meetings. Each school scheduled a faculty meeting normally on Wednesday or Thursday, which are used for workshops with teachers or to discuss important information. Other schools could not schedule a time slot to conduct the study during their faculty meeting. However, in these public schools, a schedule was set for small groups to take part in the study throughout the day. On average, the study took approximately 25 minutes to complete, which included the booklet and the audio FERPA training. VARK took approximately 2 to 3 minutes max to complete because the questionnaire consisted of short scenario questions. Participants did not struggle to select and answer because their choices reflected their opinion and preference. The FERPA quiz took approximately 8 to 10 minutes to complete. Once participants completed the study, they were free to exit the room and the researcher collected all of the booklets to later analyze the data.

### **Presentation and Analysis of Data**

This study examined how learning styles influence FERPA training retention among public school employees within the county of Los Angeles. Of the 125 public schools contacted, only 10 schools agreed to take part in the study. The demographic of each public schools' teachers and classified staff was primarily dominated by females. Table 1 demonstrates the number of teachers and classified staff members of each school



who are male or female. Furthermore, Table 1 demonstrates from each school how many employees participated in the research study.

Of a possible 403 employees, 305 public school workers participated in the research study. Not all public school employees participated in the study because some opted out, others were absent the day of the study, and others had personal obligations that prevented them from participating. After collecting all the booklet data from participants, two scores were marked in front of the booklet. The first score determined what type of learner style that participant exhibited. The second score demonstrated how that participant scored in his or her FERPA quiz. The VARK questionnaire consisted of 16 questions, to which VARK Learn Limited (n.d.-b) provided an answer grid. Based on the participant's answer, a letter V (visual), A (aural/auditory), R (Read/Write), and/or K (kinesthetic) was given. Participants could select multiple answers because the questionnaire was designed to best match their personality. Whatever letter appeared the most was the participants' learning preference. However, some participants demonstrated that they had more than one learning style. The second scored was the FERPA quiz, which consisted of 20 questions. The correct score was marked in front of the booklet that demonstrated how many answers were correct out of a possible 20 questions.

Ultimately, all booklets were sorted into five groups, which included visual, aural/auditory, read/write, kinesthetic, and mixed learners. Mixed learners consisted of people who exhibited more than one style of learning. Of the 305 participants, kinesthetic learners were the most frequent type of learner, followed by aural/auditory,

Table 1

*Demographic of Public School Participants*

Category	School 1	School 2	School 3	School 4	School 5	School 6	School 7	School 8	School 9	School 10
Teachers										
Male	0	1	4	7	6	6	5	3	1	5
Female	14	16	29	29	24	25	28	35	27	27
Total	14	17	33	36	30	31	33	38	28	32
Classified staff										
Male	4	2	3	2	2	1	10	9	10	10
Female	6	9	7	11	7	8	2	5	1	2
Total	10	11	10	13	9	9	12	14	11	12
School total										
School total	24	28	43	49	39	40	45	52	39	44
Participated	19	24	33	35	27	31	38	44	25	29

visual, read/write, and finally mixed learners. There were 95 kinesthetic learners, 90 aural/auditory learners, 81 visual learners, 30 read/write learners, and nine mixed learners. Surprisingly, there were more auditory learners than visual learners because visual and kinesthetic learners are typically most common. However, teachers might have adapted to auditory learning, since they have attended a lot of professional informational audio developing programs over the years. Table 2 demonstrates how each learning style scored in their FERPA quiz and what the overall average score combined per group was.

The auditory learners had an average score of 16 or 17 correct, which resulted in a 16.6 mean score. The kinesthetic learners had an average score of 14 or 15, which resulted in a 12.62 mean score. The visual learners had an average score of 14 or 13, which resulted in a 12.74 mean score. The read/write learners had an average score of 13, which resulted in an 11.7 mean score. Finally, the mixed learners had scores that ranged from 4 to 17 correct, which combined resulted in an 11.44 mean score. Three out of four mixed learners who scored high showed to have auditory as one of their learning styles.

When taken from small to large, the median score for auditory learners was 16. The mode for auditory learners was 17 since it was the most frequent score, appearing 26 times. The kinesthetic median was 13, and the mode was 14 since the score appeared 24 times. The visual learner's median was 13, and the mode was 14 since the score appeared 22 times. The read/write learners' median was 12, and the mode was 13 since the score appeared seven times. The mixed learner's median was 12 and there was no mode because there were no repetitive scores.

Table 2

*Group FERPA Scores*

Audio learner Score out of 20		Kinesthetic learner Score out of 20		Visual learner Score out of 20		Read/write learner Score out of 20		Mixed learner Score out of 20		
1	10	1	2	1	5	1	2	1	4	VARK
2	10	2	2	2	8	2	5	2	7	AK
3	11	3	4	3	9	3	7	3	10	KR
4	11	4	7	4	9	4	8	4	11	KR
5	11	5	7	5	9	5	10	5	12	KV
6	12	6	7	6	9	6	10	6	13	AR
7	12	7	8	7	10	7	10	7	14	AK
8	13	8	8	8	10	8	10	8	15	VK
9	13	9	9	9	10	9	11	9	17	AR
10	14	10	9	10	10	10	11			
11	14	11	10	11	11	11	11			
12	15	12	10	12	11	12	11			
13	15	13	10	13	11	13	12			
14	15	14	10	14	11	14	12			
15	15	15	10	15	11	15	12			
16	15	16	11	16	11	16	12			
17	15	17	11	17	11	17	13			
18	16	18	11	18	12	18	13			
19	16	19	12	19	12	19	13			
20	16	20	12	20	12	20	13			
21	16	21	12	21	12	21	13			
22	16	22	12	22	12	22	13			
23	16	23	12	23	12	23	13			

Table 2 (*continued*)

Audio learner Score out of 20		Kinesthetic learner Score out of 20		Visual learner Score out of 20		Read/write learner Score out of 20		Mixed learner Score out of 20
24	16	24	12	24	12	24	14	
25	16	25	12	25	12	25	14	
26	16	26	12	26	12	26	14	
27	16	27	12	27	12	27	15	
28	16	28	12	28	12	28	15	
29	16	29	12	29	12	29	17	
30	16	30	12	30	13	30	17	
31	16	31	12	31	13			
32	16	32	12	32	13			
33	16	33	12	33	13			
34	16	34	12	34	13			
35	17	35	12	35	13			
36	17	36	13	36	13			
37	17	37	13	37	13			
38	17	38	13	38	13			
39	17	39	13	39	13			
40	17	40	13	40	13			
41	17	41	13	41	13			
42	17	42	13	42	13			
43	17	43	13	43	13			
44	17	44	13	44	13			
45	17	45	13	45	13			
46	17	46	13	46	13			
47	17	47	13	47	13			
48	17	48	13	48	13			

Table 2 (continued)

Audio learner Score out of 20		Kinesthetic learner Score out of 20		Visual learner Score out of 20		Read/write learner Score out of 20	Mixed learner Score out of 20
49	17	49	13	49	13		
50	17	50	13	50	14		
51	17	51	13	51	14		
52	17	52	13	52	14		
53	17	53	13	53	14		
54	17	54	13	54	14		
55	17	55	14	55	14		
56	17	56	14	56	14		
57	17	57	14	57	14		
58	17	58	14	58	14		
59	17	59	14	59	14		
60	17	60	14	60	14		
61	18	61	14	61	14		
62	18	62	14	62	14		
63	18	63	14	63	14		
64	18	64	14	64	14		
65	18	65	14	65	14		
66	18	66	14	66	14		
67	18	67	14	67	14		
68	18	68	14	68	14		
69	18	69	14	69	14		
70	18	70	14	70	14		
71	18	71	14	71	14		
72	18	72	14	72	15		
73	18	73	14	73	15		

Table 2 (*continued*)

Audio learner Score out of 20		Kinesthetic learner Score out of 20		Visual learner Score out of 20		Read/write learner Score out of 20	Mixed learner Score out of 20
74	18	74	14	74	15		
75	18	75	14	75	15		
76	18	76	14	76	15		
77	18	77	14	77	15		
78	19	78	15	78	16		
79	19	79	15	79	16		
80	19	80	15	80	16		
82	19	82	15	81	16		
82	19	82	15				
83	19	83	15				
84	19	84	15				
85	20	85	15				
86	20	86	15				
87	20	87	15				
88	20	88	15				
89	20	89	15				
90	20	90	16				
		91	16				
		92	16				
		93	16				
		94	17				
		95	19				
Sum	1,494		1,199		1,032	351	103
Mean	16.6		12.62105263		12.74074074	11.7	11.44444444

When scoring each learning style group with a letter grade, auditory learners demonstrated to have an overall higher grade. The scale used to grade the group's overall grade include the following:

A = 90% – 100%

B = 80% – 89%

C = 70% – 79%

D = 60% – 69%

F = 0% – 59%

The auditory learners group summed score totaled 1,494. Taking the 1,494 divided by the 90 participants resulted in a 16.6 mean score. By taking the mean score of 16.6 and dividing that by the total score of 20, the auditory learners earned an 83%, which equals a low B grade.

The kinesthetic learners group summed score totaled 1,199. Taking the 1,199 divided by the 95 participants resulted in a 12.62 mean score. By taking the mean score of 12.62 and dividing that by the total score of 20, the kinesthetic learners earned a 63%, which equals to a D grade.

The visual learners group summed score totaled 1,032. Taking the 1,032 divided by the 81 participants resulted in a 12.74 mean score. By taking the mean score of 12.74 and dividing that by the total score of 20, the visual learners earned a 64%, which equals to a D grade.

The read/write learners group summed score totaled 351. Taking the 351 divided by the 30 participants resulted in an 11.7 mean score. By taking the mean score of 11.7



and dividing that by the total score of 20, the read/write learners earned a 59%, which equals to an F grade.

The mixed learners group summed score totaled 103. Taking the 103 divided by the nine participants resulted in an 11.44 mean score. By taking the mean score of 11.44 and dividing that by the total score of 20, the mixed learners earned a 57%, which equals to an F grade.

Based on these scores, the auditory learners group earned a low B, the highest overall grade of all the other learning styles. This demonstrates that although some individuals who are not auditory learners scored high, the overall group did not fare well. One thing to note is that prior to conducting the research study at the schools, only a handful stated that they had prior FERPA training. This can explain why certain auditory learners did extremely well. However, this can be a future study to determine whether prior FERPA training impacts learning styles. Surprisingly, 99% of participants either never heard of FERPA or had not taken any FERPA training.

The analysis, a one-way ANOVA (analysis of variance) test, was used to determine whether any type of differences exists between the mean of three or more independent groups. The  $p$  value determines whether there is a significant level to assess and decides to either reject or fail to reject the null hypothesis. The significance level used to test the  $p$  value in the ANOVA is alpha 0.05. If the  $p$  value of the statistical test is less than 0.05, then the null hypothesis is rejected. To test the ANOVA and find the  $p$  value, Microsoft Excel was used. After inserting all the data into Microsoft Excel, the ANOVA add-on feature in the program was executed, which provided the sum, average,

variance, and the  $p$  value. The  $p$  value that Microsoft Excel provided was 5.63427E-29. This data can be seen in Table3.

Table 3

*ANOVA Single Factor Results*

		Summary				
Group	Count	Sum	Average	Variance		
Audio learner	90	1,494	16.60000000	4.849438202		
Kinesthetic learner	95	1,199	12.62105263	7.791041433		
Visual learner	81	1,032	12.74074074	3.819444444		
Read/write learner	30	351	11.70000000	10.14827586		
Mixed learner	9	103	14.44444444	16.27777778		
ANOVA						
Source of variation	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P value</i>	<i>F crit</i>
Between groups	1107.813508	4	276.953377000	43.86718492	5.63427E-29	2.401739696
Within groups	1894.035673	300	6.313452242			
Total	3001.84918	304				

After analyzing the data with the  $p$  value of 5.63427E-29, which can be interpreted as  $5.63427 \times 10^{-29}$ . Based on the given  $p$  value of 5.63427E-29, this indicates that there is strong evidence against the null hypothesis. The null hypothesis states that there are no significant differences in the population scores. The alternative hypothesis states that there is a significant difference in the population mean. Therefore, this research study rejects the null hypothesis and agrees with the alternative hypothesis.

The results of this research study indicate that providing training to an individual that matches his or her learning styles has a positive effect in his or her retention level. Hopefully, these results can serve as a road map for administrators when developing training programs for employees.

## Summary

This research sought to determine whether learning styles influence the level of FERPA retention. As a result, the data from this research match the researcher's hypothesis and support Fleming's VARK model. Fleming's (2001) VARK model stated that individuals learn best when receiving information in their preferred learning style. This research study tested 305 participants from 10 different public schools using a booklet that contains the VARK questionnaire and a FERPA quiz. In addition, an audio FERPA training recording was used to measure how much information that participants can recall prior to taking the FERPA quiz. The researcher used audio material as the primary tool to analyze how individuals who received training that matched their learning style compared to individuals who did not match their learning preference. The results demonstrate that there is a significant difference in learning styles because auditory learners scored higher overall compared to the other learning styles.

The one-way ANOVA was used to test the null hypothesis, concerning which the results demonstrate a  $p$  value of 5.63427E-29. As a result, this  $p$  value is smaller than 0.05, which rejects the null hypothesis and agrees with the alternative hypothesis. Upon further analyzing the data, the auditory learners group earned the higher overall score. The findings in this study provides evidence that providing training to individuals that match their learning style demonstrates a greater retention than receiving information that does not match their learning style.

## CHAPTER 5: FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to examine whether a FERPA-sponsored training that matches the employee's learning style preferences increases the level of understanding FERPA protocols. It is hypothesized that if the training style does not match the employees' preferred learning style, there is the possibility that FERPA policies and procedures are not adequately learned and used, especially when it is appropriate for an employee to reveal or disclose confidential information and when there are exceptions. As a result, public schools must implement appropriate FERPA training programs that contribute in safeguarding personal information and reducing violating federal laws. Proper training of employees is important because workers manage, store, and handle sensitive information that can impact not only the student's safety but also the school's safety. Failure to incorporate an effective FERPA training program can create an unsecure environment, which can result in employees unintentionally revealing or disclosing confidential information.

To better understand how learning styles impact employee retention of FERPA in Southern California public academic institutions, the following research questions served to guide the study:

1. To what extent does FERPA training that matches an employee's learning style affect an employee's retention level of FERPA training?
2. To what extent does FERPA training that does not match an employee's preferred learning style affect an employee's retention level of FERPA training?

To conduct this study, a booklet was created, which consisted of a visual, aural/auditory, read/write, and kinesthetic (VARK) questionnaire and a FERPA quiz.

The VARK questionnaire was used to determine what type of learning style participants exhibit. The FERPA quiz allowed the researcher to examine how well participants scored. Together with the booklet, an MP3 FERPA audio training was played where participants only listened to the training in an attempt to memorize as much as possible. Following the FERPA audio training, participants immediately took the FERPA quiz. At the conclusion of the research study, the researcher collected all of the booklets, which were then separated into the visual, aural/auditory, read/write, kinesthetic, or mixed learner groups. The FERPA quiz was totaled to calculate the mean and determine which learning style group scored best overall.

The population used in this research study was only public schools within the county of Los Angeles. The researcher contacted 125 public schools to invite them to participate in the research study. Of the 125 public schools, only 10 agreed to participate in the study. Public school employees were the participants used in the study, which included teachers and supporting staff. A total of 305 participants agreed to take part in the research study, which provided sufficient data to determine whether matching learning styles with FERPA training increases retention levels among employees.

Ultimately, conducting this study is important to understand whether providing training that matches employees' preferred learning style improves the level of retention. Higher retention levels can reduce the risk of violating federal laws because information from training would be more effective.

The first chapter of this dissertation introduced the research topic, the problem statement, purpose, and steps taken to conduct the study. The second chapter included a literature review of the study that addressed the topic of learning styles and FERPA

training. The third chapter addressed the methodological approach to this study, which included the population, instruments, and collection of data. The fourth chapter provided the findings from all data that were collected and analyzed. Finally, the fifth chapter includes a summary of the problem statement, purpose, procedures, results, and concluding thoughts. In addition, this chapter contains recommendations for further studies based on the findings presented in Chapter 4.

### **Major Findings**

The hypothesis in this study is that providing FERPA training that matches employees learning styles will result in greater retention levels. Using Fleming's (2001) VARK model to drive this study provided the necessary road map to design this research study. The data collected and analyzed from all 305 participants provided several major findings. One major finding is that the auditory learners group scored much higher than any other learning style group overall. Based on the data, the auditory learners group had an overall grade of a low B. The other learning groups received either a D or an F overall grade. The data collected reveals that a significant difference exists because there is a two-grade differential between auditory learners and nonauditory learners. Although some individual auditory learners did poorly on their FERPA quiz and some nonauditory learners did exceptionally well, these were just a few participants from the entire group.

When conducting a one-way ANOVA test using Microsoft Excel, the  $p$  value provided an extremely small number providing strong evidence to reject the null hypothesis. The hypothesis prior to the start of the research was that auditory participants were going to have the better overall score, but to the researcher's surprise, the  $p$  value demonstrated a much smaller result than expected. The  $p$  value of 5.63427E-29 is

remarkable because this value was expected to be much higher. The expectations were that auditory learners would do slightly better than nonauditory learners, but the results demonstrated that overall, auditory learners out performed all expectations.

The findings provided further evidence to Fleming's (2001) VARK model because participants did retain more information when receiving training that matched their learning preference. These findings add to the literature of learning styles, which future scholars and administrators can use to coordinate their own research study or training programs. As noted, implementing a training program within public institutions is important because it can reduce employees' errors and can prepare them to better perform their tasks. Furthermore, this research can provide employers and administrators with an additional resource by implementing a training program that can accommodate their employees' learning style for a better outcome.

Contacting participants to invite them to participate in this research study provided an important finding. Principals, superintendents, and administrators recommended contacting them via e-mail, but based on the findings, this form of communication proved weak. While the use of e-mail remains the most common form used to communicate, scheduling meetings and speaking to administrators in person proved the most effective method to recruit participants. When conducting a research paper, meeting with administrators is more effective because this builds rapport, trust, and a greater rate of participation.

### **Unexpected Findings**

This research study found evidence to support the hypothesis that matching learning styles with training improves the retention level in public school employees.

However, some unexpected findings emerged from analyzing the data because not all participants scored according to the given hypothesis. Some auditory learners did not score high on their FERPA quiz, but instead they had a low score. Furthermore, some nonauditory learners scored extremely high on their FERPA quiz. These unique individual scores were unexpected because it was hypothesized that auditory learners should do better compared to nonauditory learners. Possible explanations for some auditory learners who scored poorly can be the result of participants who stepped out to use the restroom during the audio training. When conducting the research study at some public schools, some of the participants stepped out to use the restroom and then returned to resume the study. The audio FERPA training continued to play and was not paused or replayed, which might account for some poor auditory scores. However, this is not certain because all booklets were anonymous and it could not be certain what type of learner those participants exhibited.

As for participants who were nonauditory learners but scored extremely well on their FERPA quiz, prior FERPA training might explain their results. When attending public schools, some participants openly mentioned that they have received prior FERPA training. However, because the research study honored anonymous participants, it is not certain what type of learning style these participants exhibit. Only a few participants knew and had prior FERPA training, but 99% of the other participants had never heard of FERPA or had ever taken FERPA training. Future scholars might consider extending this research study and examine how participants with prior FERPA training score when receiving training that matches their learning style. Nevertheless, these are possible explanations as to why some individual auditory learners scored extremely low and why



some individual nonauditory learners did extremely well in their FERPA quiz. If participants who received prior FERPA training are also auditory learners, then this can account for perfect scores. This study did not account for participants who had prior FERPA training or situations where participants exited the room and reentered. Fortunately for this study, only a small sample of participants had prior FERPA training, which did not impact the study. This study included 99% of participants who had never heard of FERPA or had prior training. In addition, only a few participants exited the study, which overall did not impact the results. One other unexpected finding was multiple learning styles; one participant had both auditory and visual or auditory and kinesthetic learning preferences. Mixed learners were a small group and did not have a sufficient number of participants to create a conclusion. The major and unexpected findings showed that other types of research can be created to conduct new studies. Ultimately, the public value is important to protect because it is sensitive information that allows people to obtain government services. Public value refers to the value created by government through services, regulations, policies, and other actions (Moore, 1995). Government services must be trustworthy and legitimate because they promote society's economics and improve the community's value by delivering a quality and efficient service. There is no set price or value that can be put on citizens' personal, private, and sensitive information. Having information allows individuals to obtain valuable services that the government provides. The price of human life has no set price; it is invaluable. Similarly, public value has no set price because it holds great importance in people's well-being. Losing or jeopardizing personal information destroys people's ability to improve their economics, health, and well-being. Especially when a young child's

personal information is breached, his or her value in society gets ruined before he or she reaches adulthood.

### **Conclusion**

In summary, millions of dollars have been lost because of breached information, and some instances have been the result of inadequate training, careless workers, or a lack of training (California Legislative Information, 2015). Although higher educational institutions implement similar FERPA training for their employees, not all workers are able to comprehend the information equally. Everyone learns and retains information differently. Some individuals prefer visual training while others gravitate more toward auditory, read/write, or kinesthetic types of training. The University of Southern California and the University of California Los Angeles, as an example, use a kiosk software that forces employees to take a FERPA quiz before accessing students' personal information. Employees who do not pass the FERPA quiz cannot access the students' personal information. This type of training program constantly reminds employees of the federal laws and prevents workers from disclosing information to unauthorized users.

One obstacle that scholars have identified is the dependency on the software to remind employees of the FERPA laws and regulations rather than employees understanding FERPA law (Cox, 2012; Green, 2014; Yaseen & Panda, 2012). The Virginia Tech shooting demonstrates that during an emergency, public school employees may not have time to take a FERPA quiz. During the Virginia Tech shooting, employees violated a lot of FERPA laws because workers were not adequately trained (Virginia Tech Review Panel, 2007). Situations similar to the Virginia Tech shooting can occur on any campus, which is why employees must be capable of understanding what information

can be released and when there are exceptions (Virginia Tech Review Panel, 2007). One major concern has been public elementary, middle, and high school because these institutions do not typically implement adequate FERPA training or have any training at all. Younger students are primary targets because their records are clean and can be used for fraudulent activities (California Legislative Information, 2015). Furthermore, when public schools do not have adequate FERPA training, the risk of violating federal law increases among employees. Not providing proper FERPA training in lower level public schools creates a major concern. As a result, this research emerged to understand the level of FERPA retention when public school employees receive training that matches their learning style.

This research study produced interesting results and unexpected findings. This research hypothesized that all individuals who receive training that matches their learning style will retain more information than participants who did not receive training that matches their learning preference. The findings prove this hypothesis because the auditory learners group scored a higher mean overall compared to the other learning style groups. Conducting a one-way ANOVA further proved that matching training with an employee's learning style will result in higher retention. Although a few participants scored unexpected results, this was only a handful and did not impact the study. Furthermore, the unexpected results can be attributed to many possible reasons, which cannot be confirmed in this study. This study was not intended to understand these unexpected results, but future scholars can formulate a study and investigate why certain individual auditory learners scored poorly and why certain individual nonauditory learners did extremely well on their FERPA quiz. Nevertheless, the use of booklets that

included both the VARK questionnaire and the FERPA quiz demonstrated to be highly effective instruments to conduct and collect all the data. Furthermore, the use of an audio FERPA training provided the additional support to assist in conducting this research study. This study provided rewarding results, and it opens the possibilities for administrators to explore training programs that match their employees' learning styles. Everyone learns differently and must understand that there is not one universal program that can be effective for all employees. As a result, administrators should consider exploring different types of training that matches their employees' learning style.

### **Implications for Action**

Implementing a training program that safeguards not only students but also public schools is important. Millions of dollars have been lost because of breached information, and some have been the result of inadequate training, careless workers, or a lack of training (California Legislative Information, 2015). The community trusts public institutions that they will not only receive good service but also protect personal information. Identity theft and fraudulent activities continue to be a major concern for individuals, which is why people who use public facilities must feel safe and protected (California Legislative Information, 2015). The federal government has implemented laws such as FERPA in order to protect students' personal information. The responsibility rests on the administrators of public institutions to implement a training program that will increase employee's awareness of FERPA and reduce the risk of violating federal laws. Public schools that fail to comply with FERPA risk losing funding and possibly increase their chances of getting lawsuits. Public schools have incorporated many types of FERPA training programs, but how effective are they in

increasing employees' retention level? Therefore, this study sought to investigate the level of FERPA retention when public school employees receive FERPA training that matches their learning style. Examining this research allows understanding of whether the programs improve effectiveness when matching employees learning style with a FERPA training. Ultimately, this researcher hopes to provide literature that future scholars can use for their own study or provide information for administrators who wish to explore learning styles when implementing a training program in their public institution.

### **Recommendations for Further Research**

This research study has provided exceptional results that not only served to validate Fleming's (2001) VARK model but also contributed to the study of learning styles. Based on the results, the auditory learners' group scored exceptionally high when receiving audio FERPA training. Nonauditory learners who received audio FERPA training did not score high on their audio FERPA training quiz. During the process of conducting and collecting the data needed to complete this research study, several questions emerged, which can serve for future research. This study used audio instruments to assist in this research study and investigated how auditory learners scored compared to nonauditory learners. However, research can be done with the other three learning styles. A study can examine how public school employees would score if visual, read/write, or kinesthetic learning styles were used instead of audio. Furthermore, mixed learning styles are also a study worth further exploring because this study provided several participants who exhibited two types of learning styles. Examining multiple learning style participants should be interesting to investigate if it influences retention in

subjects. This study solely focused on public schools, but further study can be done with private schools or comparing public and private schools. Finally, one interesting piece uncovered was participants who were auditory learners who scored low when receiving audio training. Moreover, some participants who were not auditory learners scored exceptionally well in their audio FERPA quiz. One possible factor for this can be due to these participants receiving prior FERPA training or individuals who stepped out of the room to use the restroom. Nevertheless, this can be another future study to explore and investigate how participants with prior knowledge would score if given a different test. Any combination of these recommended future research studies would greatly build on what has already been done in this study. For this study and to protect anonymity, demographic data were purposely not collected. However, a suggestion for future researchers is to collect and explore demographic data to investigate how learning styles impact participants' retention level of FERPA. Researching the different demographics and regions may provide additional or unique results that can contribute further in the study of learning styles, not just in California but possibly worldwide.

### **Concluding Remarks**

This study investigated learning styles and how they impact employees when they do not receive training that matches their learning preference. It is important for public administrators to understand how and what programs benefit an institution. Various programs exist in public institutions that are intended to adequately train employees, but how impactful are they for employees? Not everyone learns and comprehends information in the same manner. By implementing training programs that mismatch how an employee best learns can impact the employee's performance and his or her ability to

properly follow rules, laws, and regulations. At times, it is not the employee's inability to properly follow laws and regulations but might be the result of how the worker was trained. Similar to providing internships to college graduates to prepare them for the workforce, current and upcoming employees should have adequate training. As a result, training employees in their learning style can prove to increase productivity and reduce the risk of violating laws and regulations. Ultimately, this study along with the entire process has brought an enormous wealth of knowledge, which continues to remain imbedded in this research.

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## APPENDICES

## APPENDIX A

### VARK Questionnaire



#### The VARK Questionnaire (Version 7.8)

##### How Do I Learn Best?

Choose the answer which best explains your preference and circle the letter(s) next to it.  
**Please circle more than one** if a single answer does not match your perception.  
Leave blank any question that does not apply.

1. You are helping someone who wants to go to your airport, the center of town or railway station. You would:
  - a. go with her.
  - b. tell her the directions.
  - c. write down the directions.
  - d. draw, or show her a map, or give her a map.
2. A website has a video showing how to make a special graph. There is a person speaking, some lists and words describing what to do and some diagrams. You would learn most from:
  - a. seeing the diagrams.
  - b. listening.
  - c. reading the words.
  - d. watching the actions.
3. You are planning a vacation for a group. You want some feedback from them about the plan. You would:
  - a. describe some of the highlights they will experience.
  - b. use a map to show them the places.
  - c. give them a copy of the printed itinerary.
  - d. phone, text or email them.
4. You are going to cook something as a special treat. You would:
  - a. cook something you know without the need for instructions.
  - b. ask friends for suggestions.
  - c. look on the Internet or in some cookbooks for ideas from the pictures.
  - d. use a good recipe.
5. A group of tourists want to learn about the parks or wildlife reserves in your area. You would:
  - a. talk about, or arrange a talk for them about parks or wildlife reserves.
  - b. show them maps and internet pictures.
  - c. take them to a park or wildlife reserve and walk with them.
  - d. give them a book or pamphlets about the parks or wildlife reserves.
6. You are about to purchase a digital camera or mobile phone. Other than price, what would most influence your decision?
  - a. Trying or testing it.
  - b. Reading the details or checking its features online.
  - c. It is a modern design and looks good.
  - d. The salesperson telling me about its features.
7. Remember a time when you learned how to do something new. Avoid choosing a physical skill, eg. riding a bike. You learned best by:
  - a. watching a demonstration.
  - b. listening to somebody explaining it and asking questions.
  - c. diagrams, maps, and charts - visual clues.

- d. written instructions – e.g. a manual or book.
8. You have a problem with your heart. You would prefer that the doctor:
- gave you a something to read to explain what was wrong.
  - used a plastic model to show what was wrong.
  - described what was wrong.
  - showed you a diagram of what was wrong.
9. You want to learn a new program, skill or game on a computer. You would:
- read the written instructions that came with the program.
  - talk with people who know about the program.
  - use the controls or keyboard.
  - follow the diagrams in the book that came with it.
10. I like websites that have:
- things I can click on, shift or try.
  - interesting design and visual features.
  - interesting written descriptions, lists and explanations.
  - audio channels where I can hear music, radio programs or interviews.
11. Other than price, what would most influence your decision to buy a new non-fiction book?
- The way it looks is appealing.
  - Quickly reading parts of it.
  - A friend talks about it and recommends it.
  - It has real-life stories, experiences and examples.
12. You are using a book, CD or website to learn how to take photos with your new digital camera. You would like to have:
- a chance to ask questions and talk about the camera and its features.
  - clear written instructions with lists and bullet points about what to do.
  - diagrams showing the camera and what each part does.
  - many examples of good and poor photos and how to improve them.
13. Do you prefer a teacher or a presenter who uses:
- demonstrations, models or practical sessions.
  - question and answer, talk, group discussion, or guest speakers.
  - handouts, books, or readings.
  - diagrams, charts or graphs.
14. You have finished a competition or test and would like some feedback. You would like to have feedback:
- using examples from what you have done.
  - using a written description of your results.
  - from somebody who talks it through with you.
  - using graphs showing what you had achieved.
15. You are going to choose food at a restaurant or cafe. You would:
- choose something that you have had there before.
  - listen to the waiter or ask friends to recommend choices.
  - choose from the descriptions in the menu.
  - look at what others are eating or look at pictures of each dish.
16. You have to make an important speech at a conference or special occasion. You would:
- make diagrams or get graphs to help explain things.
  - write a few key words and practice saying your speech over and over.
  - write out your speech and learn from reading it over several times.
  - gather many examples and stories to make the talk real and practical.

# VARK

visual aural read/write kinesthetic

## The VARK Questionnaire Scoring Chart

Use the following scoring chart to find the VARK category that each of your answers corresponds to. Circle the letters that correspond to your answers

e.g. If you answered b and c for question 3, circle V and R in the question 3 row.

Question	a category	b category	c category	d category
3	K	V	R	A

## Scoring Chart

Question	a category	b category	c category	d category
1	K	A	R	V
2	V	A	R	K
3	K	V	R	A
4	K	A	V	R
5	A	V	K	R
6	K	R	V	A
7	K	A	V	R
8	R	K	A	V
9	R	A	K	V
10	K	V	R	A
11	V	R	A	K
12	A	R	V	K
13	K	A	R	V
14	K	R	A	V
15	K	A	R	V
16	V	A	R	K

## Calculating your scores

Count the number of each of the VARK letters you have circled to get your score for each VARK category.

Total number of <b>V</b> s circled =	
Total number of <b>A</b> s circled =	
Total number of <b>R</b> s circled =	
Total number of <b>K</b> s circled =	

## APPENDIX B

### FERPA Quiz

#### FERPA Quiz

1. You receive a phone call from excited parents claiming that there IS A FAMILY EMERGENCY, and that they need to get in touch with their daughter immediately. Can you tell the parents the day, time, and location of their daughter's class? **\*This question is required.**
  - a) Yes
  - b) No
2. To be an “education record” the information must be: **\*This question is required.**
  - a) personally identifiable to the student
  - b) maintained by the institution
  - c) kept in the admissions office
  - d) made available to law enforcement
  - e) all of the above
  - f) a and b only
3. A parent comes into the Admission’s Office to drop off requested papers for the student. Can you accept the papers without the student being present? **\*This question is required.**
  - a) Yes
  - b) No
4. Under FERPA, it is permissible for a faculty member to have his/her students pick up their graded term papers from the chair outside the professor’s office. **\*This question is required.**
  - a) True
  - b) False
5. At the college level, FERPA states that parents: **\*This question is required.**
  - a) have the same rights of access and review as their child
  - b) can only see their child's records after receiving permission from the Dean of Enrollment Services
  - c) can review progress reports and grades sent directly to the student's permanent home address
  - d) none of the above



6. It is permissible for a professor to post student grades on an office door if: **\*This question is required.**
- a) only a student's social security number is used
  - b) a code word or randomly assigned number is used
  - c) the student identification number is used
  - d) b and c are correct
  - e) none of the above
7. An unauthorized person obtains private student information from a computer screen that was left unattended by a college staff member. Is this a violation of FERPA? **\*This question is required.**
- a) Yes
  - b) No
8. You are a staff member in the Admissions and Records Office. The Vice President for Human Resources comes to to you and asks to see the grades of a particular student. What should you do? **\*This question is required.**
- a) provide immediate access to the records
  - b) determine why the grades need to be accessed
  - c) refuse the request for assistance on grounds that it violates FERPA
9. As defined in FERPA, "legitimate educational interest" refers to: **\*This question is required.**
- a) a school official's need to review a student's record to fulfill a responsibility as part of his/her contract
  - b) a father's need to see his daughter's educational records in order to pay her tuition
  - c) the newspaper's need to know the GPA of a current University athlete in order to publish an article
  - d) an instructor's need to know a student's GPA in order to write a letter of recommendation

10. Faculty members have the right to inspect and review the education records of any student at Santa Monica College. **\*This question is required.**
- a) True
  - b) False
11. If a student discloses in an open forum that he or she has taken a particular class and indicates the grade received, the instructor may infer that the student has given implied consent for the instructor to openly discuss the issue. **\*This question is required.**
- a) True
  - b) False
12. It is permissible for a faculty member to include a student's grades and GPA in a letter of recommendation without obtaining the student's written permission since the student asked the faculty member to write the recommendation and provided a copy of her resume, including GPA information. **\*This question is required.**
- a) True
  - b) False
13. You are a staff member and you receive a call from the police asking for a student's class schedule for the current term. They are investigating a crime.  
Can you give them the information? **\*This question is required.**
- a) Yes
  - b) No
14. A registered student organization asks a department for a list of student names and addresses in order to send out an informational mailing.  
Should the department provide the information? **\*This question is required.**
- a) Yes
  - b) No
15. A department head asks for a list of names and addresses for students who are enrolled in a specific course in the department. The addresses will be used to mail a survey about the quality of the course. Results of the survey will be used to improve the course.  
Is this an appropriate use of student records? **\*This question is required.**
- a) Yes
  - b) No

16. An academic department is preparing an email message to departmental students about a critical academic deadline.  
Should the name and address of a student be included in the mailing list that will be seen by the other recipients of the email? **\*This question is required.**
- a) Yes
  - b) No
17. You receive a call from the parent of a registered student for whom directory information is suppressed. The parent wants to know if the student is registered for the current semester. What is the correct response? **\*This question is required.**
- a) The student has suppressed the information.
  - b) Because of FERPA, we cannot confirm or deny that this person is enrolled at the college.
  - c) The student is enrolled this semester.
18. A student has placed a confidential hold on (suppressed) their record.  
Does the student have a right to be anonymous in the classroom, i.e. they do not want their name to be known by fellow students? **\*This question is required.**
- a) Yes
  - b) No
19. A student comes to see you and request you allow him to inspect and review your personal notes about the student, which are held in a file in your office desk.  
Does the student have a right to review and inspect your personal notes about him? **\*This question is required.**
- a) Yes
  - b) No
20. A journalist for a local newspaper calls you at the Admissions Office seeking to confirm a degree conferred to a former student. Must you first obtain the student's permission to release this information?
- a) Yes
  - b) No

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## FERPA Quiz Answer Key

1. b) No
2. f) a nd b only
3. a) Yes
4. b) False
5. d) None of the above
6. b) a code word or randomly assigned number is used
7. a) Yes
8. b) determine why the grades need to be accessed
9. a) a school official's need to review a student's record to fulfill a responsibility as part of his/her contract
10. b) False
11. b) False
12. b) False
13. b) No
14. b) No
15. a) Yes
16. b) No
17. b) Because of FERPA, we cannot confirm or deny that this person is enrolled at the college.
18. b) No
19. b) No
20. b) No

## APPENDIX C

### **FERPA Audio**

This short training will introduce you to the Family Educational Rights & Privacy Act, or FERPA as it is more commonly known. This training should take approximately 15 minutes to complete and will touch on some of the basics you need to know to apply FERPA at any public school. As already noted, FERPA stands for the Family Educational Rights & Privacy Act. It governs access to student records and prescribes how to maintain their confidentiality. By law, public schools require to comply with FERPA. If a public school should fail to follow FERPA rules, it could lose all federal funding. Additionally, the public school and its staff could be charged with breach of FERPA mandated confidentiality of student records.

In addition, the California Education Code law also applies, requiring public schools to annually notify students of

- the type of records being kept,
- the school official responsible for each type of record, and
- the criteria used in defining who has access.

Additionally, policies for reviewing, purging, changing and challenging these records must be explained.

So, what rights does FERPA convey to a parent or student (age 18 and over)? Under FERPA, a student or parent can expect that information in educational records, including electronic records, will be kept confidential and disclosed only with their permission or as required by law.

The information includes:

- Grades
- Enrollment records
- Classes currently scheduled and/or previously completed
- Class lists
- Personal identification numbers (PIN)
- Social Security Numbers (SSN)
- Student employment and payroll information

There are some basic rules that apply in all circumstances:

First, faculty or staff only should have access to student information necessary for completing their job responsibilities. Access must be governed by a strict NEED-TO-KNOW policy.

All records deemed educational records must be kept confidential and MAY NOT BE RELEASED WITHOUT THE parents' consent or an adult STUDENT'S WRITTEN CONSENT.

However, FERPA denies ACCESS TO PARENTS OF COLLEGE STUDENTS, REGARDLESS OF AGE, unless it is part of Directory Information or access is authorized in writing.

It is the responsibility of all public school employees to maintain the confidentiality of student records.

We now move to Directory Information

FERPA identifies a category of information as "directory information," which institutions may usually release without student permission. Directory information is information that would not generally be harmful or an invasion of privacy if disclosed. Each institution specifies what constitutes directory information.

FERPA does not include a student's right to be anonymous in the classroom as this might impede routine classroom communication and interactions. Therefore, a student's choice to suppress directory information does not include a right to anonymity in the classroom.

We now move to Disclosure without consent

FERPA permits the release of some information without student permission. For example:

- To school officials with legitimate educational interests and who have a legitimate educational need-to-know or a purpose.
- To comply with a judicial order or lawfully issued subpoena
- To the appropriate parties in a health or safety emergency, such as parents (listed as emergency contact), police, health center
- To officials of another school, in which a student seeks or intends to enroll.

We now move to the miscellaneous items to know

FERPA does not address retention schedules for items such as grade books.

Registrar recommends that faculty keep their students' grades and records for one year before proper disposal.

Students representatives in public schools are conducting officials such as honors, curriculum, disciplinary etc. are conduction official business of a public school and therefore are considered school officials with a legitimate educational interest and are permitted to have access to specific related student records.

FERPA does not address sending student information via e-mail. Therefore, these basic rules apply:

- Do not enter a SSN or a non-directory information in subject lines.
- Do not share specific student information with Individuals unless they are specified under FERPA guidelines, Disclosure without consent.

We move on to the Guidelines for Faculty and Staff

Do:

- Use randomly assigned numbers or codes to display scores or grades
- Keep any personal notes relating to individual students separate from educational records.
- Keep only those individual student records necessary for fulfillment of your responsibilities.
- Refer information requests to the proper educational record custodian.

Do Not:

- Display student scores, grades, social security numbers, or PIN (Personal identification number).
- Put papers, projectors, graded exams, or reports in public accessible places.
- Disclose your electronic student records access account/password information to anyone.
- Share student information, including grades or GPA's with other faculty or staff unless their responsibilities warrant a need-to-know.

When in Doubt

Remember that information is given out on a strict need to know basis so,

- Lean more on the side of caution and do not release student educational information.
- Speak with your immediate supervisor for direction.
- Contact your Schools Dean of Enrollment services for guidance or the human resources department.

We move to the Best practices for electronic media use

Remember, while an open discussion forum is allowable and desirable in classroom

settings, certain precautions should be taken when engaging in online communication:

- Never send a list of your students' e-mail addresses out as part of class content or material.
- Never leave student information unattended on your computer screen where it may be seen by an unauthorized individual.
- Use the BCC line when sending material to more than one student.



- Be wary of responding to requests for broad student information content such as names, addresses, or social security numbers. It is possible that you are being spammed or being phished.
- Protect your password. Your public school account password is confidential and should not be shared with anyone.

And finally let's do a quick review

- By law you are responsible for protecting student's data in your possession.
- Need-to-know is the basic principle governing FERPA regulations.
- Educational records may not be released without the written consent of a parent or an adult student.
- Individual directory information may be released without written consent except when the parent or adult student has requested that it not be released.
- Public school employees may access and use private educational records only as necessary to conduct official business that is related to the educational interest of the student.
- Take appropriate measures to protect student's records that are stored on personal computers and local networks.
- If in doubt do not release information about a student and contact your schools associate of enrollment services or your human resource department for guidance.

This concludes your FERPA training please start your FERPA quiz.

## APPENDIX D

### Informed Consent

**Introduction:** My name is Jorge Galarza and I am a student of public administration in the doctoral program at California Baptist University (CBU). I would like to invite you to participate in a research study about how learning styles influence the level of retention of new information. You were selected as a possible participant in this study because you work in a public school managing or handling student record personal information and are at least 18 years of age. The primary task of this study is that you will participate in a learning style questionnaire, listen to an audio training tape, and answer questions regarding the training tape.

**What to expect:** If you decide to participate, you will complete an inventory questionnaire task (16 questions), listen to a 15-minute audio training tape, and then answer 20 questions on a quiz. There are also a few questions at the beginning that will help me understand a little bit more about you (e.g., faculty or staff, experience at school site (1-5 years; 6-10 years, etc.). You will only participate one time and your participation will last approximately 40 to 60 minutes.

**Risks and Benefits:** There are no expected risks for participating in this research. If you do become fatigued, please remember that your participation is voluntary and you may end your participation at any time. I believe this research will contribute to a growing body of research in the field of public administration dealing with learning style processes and retention, though I cannot guarantee that you personally will receive any benefits from this research.

**Data Protection and Privacy:** If you agree to participate, you will provide your name only on this consent form which will be kept separate from the information collected on the questionnaire and the quiz. The questionnaire and quiz will not be identified with your name. At the conclusion of this study any data that may come out of it may be shared in the dissertation that I write. If you have any questions about this data sharing, please contact me.

**You are free to decide whether you want to participate:** Your participation is voluntary. Your decision whether or not to participate will not affect your relationship with me, the school that you work for, your principal, or CBU. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time.

**Questions and Contacts:** If you have any questions about the study (before or after participating), please feel free to contact me (XXXXXXXXXXXX @calbaptist.edu; (XXX) XXX-XXXX, or my faculty advisor, Dr. Kathryn Norwood (XXXXXXXX @calbapist.edu; (XXX) XXX-XXXX. If you have questions regarding your rights as a research participant, please contact the Institutional Research Board (IRB) of California Baptist University, the committee that reviewed this research to ensure participant welfare (IRB@calbaptist.edu). You will be given a copy of this form for your records at the end of the session today.

**Consent:** By providing your signature here, you are indicating that you have read and understand the information provided above, that you willingly agree to participate, that you know you may withdraw your consent at any time and discontinue participation without penalty, that you have been offered a copy of this form, and that you are not waiving any legal rights or future claims.

Please sign below **if you do want to participate** and wait for further instructions.

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Signature (I agree to participate)