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## **An Exploratory Study on the Usability of Distance Learning Technology in the U.S. Army Recruiting and Retention Command**

Rony Arizandieta Rodas

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**An Exploratory Study on the Usability of Distance Learning Technology in the U.S. Army  
Recruiting and Retention Command**

**Submitted to the Faculty**

**of**

**Long Island University**

**by**

**Rony Arizandieta Rodas**

**In fulfillment of the requirements for the degree**

**of**

**Doctor of Philosophy**

### **Abstract**

This exploratory study investigates how integrating distance learning technologies within the U.S. Army impacts enlisted soldiers in terms of implementation, usability, and long-term career mobility. With internet-based education, active-duty enlisted personnel can pursue academic degrees from accredited military-affiliated institutions while simultaneously fulfilling operational duties, deployments, and daily training. The U.S. Army Recruiting Command has capitalized on this advancement by framing online education and digital accessibility as core components of its enlistment strategy. This approach is particularly relevant given that a significant proportion of new recruits originate from rural and economically disadvantaged areas, where access to higher education is often limited, and many rely on minimum-wage employment or public assistance. For many, the promise of tuition-free college education is a decisive factor in choosing military service. Attaining a Bachelor's degree during one's initial term can serve as a launchpad to broader civilian opportunities, offering a tangible pathway out of socio-economic stagnation. In this sense, the degree becomes more than a credential, representing an exit strategy from underserved communities. However, this dynamic introduces a strategic dilemma for the U.S. Army's retention mission. While distance learning empowers soldiers academically and professionally, it may also reduce the incentive for reenlistment once educational goals are met. The Army's long-term operational effectiveness relies heavily on retaining experienced personnel, especially those who have cultivated leadership skills and battlefield insight. Therefore, this exploratory study assesses whether the widespread adoption of digital education tools strengthens or undermines force recruitment and retention.

**Key words:** Dedoose; Earmyu; GI; Retention; U.S. Army; Online Ed; Mixed-Methods; Tuition; Descriptors; Military; Reenlistment; Non-traditional Students; Adult Learning.

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## Glossary of Terms

|               |                                       |
|---------------|---------------------------------------|
| ACES.....     | Army Continuing Education System      |
| ALMS.....     | Army Learning Management System       |
| CA.....       | Credential Assistance                 |
| CES.....      | Civilian Education System             |
| EAmyU.....    | Electronic Army University            |
| GI Bill.....  | Government-Issued Education System    |
| GOArmyED..... | Go Army Education                     |
| JST.....      | Joint Service Transcript              |
| MOOC.....     | Massive Open Online Courses           |
| MOS.....      | Military Occupational Specialty       |
| NCO.....      | Non-Commissioned Officer              |
| ROI.....      | Return On Investment                  |
| ROTC.....     | Reserve Officers' Training Corps      |
| TA.....       | Tuition Assistance                    |
| TRADOC.....   | Training Command                      |
| USAREC.....   | United States Army Recruiting Command |
| VMI.....      | Virginia Military Institute           |

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## **Chapter 1**

### **Introduction and Overview**

#### **1.1 Introduction - Purpose of the Exploratory Study**

Prior research has been done on utilizing distance learning technology by governmental organizations. The Department of Defense of the United States and the United States Recruiting and Retention Command (USAREC) used the Internet with distance learning technology to attract recruits and motivate career soldiers and officers to remain in the armed forces after their first enlisted or commissioned contract (Mavor & Sackett, 2003). This study aims to determine how distance learning technology has effectively persuaded low-income and high-income individuals to enlist in the U.S. Army by offering them the opportunity to earn a college degree while serving the country. The second purpose of this study is to evaluate the long-term career and educational outcomes of individuals who enlisted in the U.S. Army, influenced by the opportunity to earn a college degree. The third purpose is to determine if the Department of Defense's monetary investment in higher education programs for enlisted service members is adequate and if the return on investment (ROI) contributes to the increase in enlistments and personnel retention. Sife et al. (2007) stated that making distance learning technology available to civilians enhances the motivation factors that could cause an individual facing poverty to enlist as a soldier and have a higher career progression rate than their commissioned officers who joined the armed forces already possessing a college degree. Caforio (2018) states that commissioned officers are automatically placed in leadership positions and earn higher salaries, while enlisted personnel are given lower roles due to their lack of academic credentials. This study will aim to identify the benefits and drawbacks of the evolving long-distance learning technologies that the Department of Defense has adopted to meet its yearly recruiting goals. By using long-distance learning

technology to deliver training and education online, the U.S. Army can better provide high-quality, accessible education to soldiers regardless of their location or work schedule. The advancement in distance learning technology has helped to level the playing field between enlisted soldiers and commissioned officers, allowing both groups to pursue education and career advancement opportunities even when commissioned officers already possess a bachelor's degree or a Master's degree.

Hoffman (2013) said that distance learning has helped create a more diverse and intellectually oriented military education system, better suited to the needs of modern soldiers. Using technology to deliver training and education, the Army has provided more flexible, personalized learning experiences that allow soldiers to learn at their own pace and schedule. This has helped to reduce the gap between enlisted soldiers and commissioned officers in terms of education and training. Still, the retention rate of service members, especially during times of war, has been one of the Army's challenges. Hoffman (2013) also states that online learning has become essential to military education, providing soldiers with high-quality education and training regardless of location. The study notes that online learning has helped to break down barriers between different branches of the military and has allowed soldiers to pursue education and career advancement opportunities that were previously unavailable. These studies suggest that distance learning technology has positively impacted the U.S. Army's operational work climate and the progress of enlisted soldiers compared to their commissioned officer leaders (Pamphlet 600-25). By using technology to deliver education and training, the Army has provided more accessible, flexible, and practical education to soldiers, helping to level the playing field between enlisted and commissioned officers. A small pilot study initially explored how analyzing textual data helped identify trends and how visualizations made those insights more

straightforward to understand. It also assessed how advanced distance learning technologies influenced enlisted soldiers in the U.S. Army, looking at recruitment, retention, career development, promotions, long-term benefits, and cost-effectiveness. The study expected that distance learning could improve retention and recruitment efforts, provide soldiers with valuable skills to advance their careers, and be effectively implemented through targeted educational programs and incentives. Enlisted soldiers participating in these programs would likely see better career prospects, higher lifetime earnings, and more significant professional growth. In the long run, this research may suggest that the benefits of investing in digital learning will outweigh the costs, making it an essential and cost-effective tool for the future of the military. However, additional findings may vary as technology evolves and newer generations develop different perspectives on military service.

## **1.2 Importance Of The Study**

A content analysis research study can help identify the advantages and challenges of distance learning education and inform policy decisions on how best to support military personnel in their pursuit of education. Additionally, researching how officers had to compete with college-educated service members can provide insight into the changing landscape of the military and how educational qualifications impact career advancement.

This study can help inform policies and training programs that prepare officers and enlisted soldiers for the evolving demands of the military. It can have significant implications for the military and its personnel, as it can inform strategies to improve education opportunities, retention rates, and overall job performance, ultimately benefiting the military since the Department of Defense implemented digital distance learning technologies to replace the legacy correspondence course program. Dabney & Mitchell (2012) said that since the introduction of

electronic learning technology, research has been done on the effectiveness of distance learning and how non-traditional students can earn their college education using distance learning platforms.

Kusmaryono et al. (2021) also stated that many non-traditional students have benefited from having the opportunity to attend a virtual college class from the comfort of their homes or workplaces using the Internet. Berestok et al. (2020) mentioned that a non-traditional student is an individual who is often older than 24 years old and whose life circumstances have prevented them from attending college at the undergraduate level immediately after high school or earning a GED. One of the most common characteristics of a non-traditional student is often a low socioeconomic status, which may fall under the poverty level or being a welfare recipient (Broton, 2017). Dabney and Mitchell (2012) said that individuals often assume highly stressful personal responsibilities, which causes them to start a college education later in life. Moreover, this population is frequently attracted to joining the U.S. Army due to the educational benefits of becoming an enlisted service member.

Zirkle & Jeffery (2016) stated that the U.S. Army hires an average of 75,000 new soldiers and commissioned officers annually. Its high annual recruiting budget allows the U.S. Army Recruiting and Retention Command to spend about \$15,000 per recruit. Zirkle & Jeffery (2016) said the U.S. Army has about 80,000 to 90,000 new enlisted members annually. To achieve those goals or get closer to meeting their mission requirements, the United States Recruiting Command, USAREC, uses the Higher Education sales pitch and incentives as a recruiting tool to make the idea of enlisting in the military more attractive to those individuals who did not have access to a traditional college in the civilian sector and that come from a low-income environment facing housing, medical insurance and college assistance tuition problems.

The following table represents the U.S. military educational systems currently in use and updated and maintained by the Department of Defense.

**Table 1.2.1 Educational Military Systems**

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ALMS - Army Learning Management System</b> | It provides online educational services to 1.2 million U.S. Army enlisted and officer members, and the U.S. Army Training and Doctrine Command Combined Arms Center supports these services.                                                                                                                                                                                                                                                                                   |
| <b>GOArmyED Electronic Army University</b>    | TRADOC manages this program. The Army's Training and Doctrine Command is one of the first distance learning systems adopted by the Army with the intent to discontinue the snail mail correspondence course system. Furthermore, this program is entirely online, offering soldiers a streamlined "portal" approach to various post-secondary degrees and technical certificates. Moreover, the technology package becomes property after soldiers complete 12 semester hours. |
| <b>JST - Joint Services Transcript</b>        | This online-only program allows veterans and active-duty members to earn college credits by evaluating their military training.                                                                                                                                                                                                                                                                                                                                                |
| <b>Army Tuition Assistance (TA)</b>           | This program provides up to 100% tuition coverage for soldiers pursuing college courses, with an annual cap of \$4,000. It is available for both active-duty soldiers and members of the Army Reserve and National Guard                                                                                                                                                                                                                                                       |
| <b>ArmyIgnitED</b>                            | This platform offers over 300,000 college and credentialing courses, allowing soldiers to achieve their educational goals online, on or off base. It includes tuition assistance, books, and fees for online courses                                                                                                                                                                                                                                                           |
| <b>GI Bill</b>                                | The GI Bill helps soldiers and veterans pay for college, graduate school, and other training programs. It provides significant financial support for those who have served                                                                                                                                                                                                                                                                                                     |

|                                                |                                                                                                                                                                                                                                              |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                | for at least three years                                                                                                                                                                                                                     |
| <b>ACES - Army Continuing Education System</b> | The Army Continuing Education System (ACES) promotes learning and readiness/education programs for service members and families.                                                                                                             |
| <b>Green to Gold Program</b>                   | This program assists active-duty soldiers in completing their bachelor's or graduate degrees while earning a commission as an Army officer. It covers school costs and provides leadership training                                          |
| <b>Civilian Education System (CES)</b>         | CES is a leader development program that offers progressive educational opportunities for Army civilians. It aims to create multi-skilled leaders who support various aspects of Army operations, from war fighting to enterprise management |
| <b>Credentialing Assistance (CA)</b>           | The Army Credentialing Opportunities Online (COOL) program helps soldiers obtain certifications and licenses relevant to both Army and civilian careers                                                                                      |
| <b>Loan Repayment Programs</b>                 | The Army offers programs to repay or cancel student loans for eligible soldiers, with the potential to repay up to \$65,000 in student loans                                                                                                 |

Admin Pubs (n.d)

### 1.3 Military Service Life After Enlistment

The daily activities of enlisted soldiers are overseen by a Non-Commissioned Officer (NCO), typically at the rank of Sergeant, who has been trained in leadership, management, and mentorship, either face-to-face or online. (Department of Defense Instruction 1322.29 n.d). Their crucial role involves guiding soldiers and managing military assets, instructing them in combat skills, and ensuring adherence to military rules. NCOs are tasked with facilitating the career progression of their soldiers through the use of Defense Department resources, such as the E-army-U “Electronic Army University” distance learning platform (Department of the Army



Pamphlet 600–25 2008). According to the U.S. Army Noncommissioned Officer Professional Development Guide, NCOs play a crucial role in encouraging soldiers to pursue correspondence courses to broaden their technical knowledge, maintain high standards in physical fitness, and pursue college education for degrees or credits that can aid in their promotion eligibility, reflecting their service duration and meeting specific promotion criteria.

## **1.4 Background**

### **History and Timeline of Distance Education Before the Era of Online Education. The 1900s, The Industrial Age, and Early Computers**

Distance learning, also known as online learning or e-learning, has a rich history dating back to the early 19th century (Kaplan and Haenlein 2016). The following review will examine some key historical developments in distance learning and explore how the field has evolved.

One of the earliest examples of distance learning was the establishment of correspondence courses in the mid-19th century. These courses allowed students to receive educational materials through the mail and complete assignments at their own pace. One of the pioneers in this field was Sir Isaac Pitman, who developed a shorthand correspondence course in the 1840s (Holmberg 2005). In the early 20th century, the development of radio broadcasting and the use of audio recordings paved the way for audio-based distance learning. One of the earliest examples was the University of Wisconsin's "University Extension" program, which began offering radio-based courses in the 1920s (Holmberg 2005).

Television development in the 1950s and 1960s led to the establishment of televised distance learning programs. The Open University in the UK pioneered this field, launching its first television-based courses in 1971. Distance learning underwent a significant transformation with the widespread adoption of personal computers and the Internet in the 1990s and 2000s.

Using online platforms and multimedia resources enabled educators to deliver rich, interactive learning experiences to students worldwide (Tait 2000).

Moore & Kearsley (2012) state that distance learning is a rapidly growing field that continues to evolve and innovate. Massive open online courses (MOOCs), social learning networks, and mobile learning are just a few recent developments in this field.

#### **1.4.1 Introduction to Distance Learning**

Distance learning, also known as online education or e-learning, has revolutionized the traditional educational landscape by enabling students to access academic instruction and resources remotely. Distance learning dates back to the 19th century with the advent of correspondence courses, where instructional materials were mailed to students (Kentnor 2015). However, the internet's rise in the late 20th century transformed distance education. The introduction of personal computers, followed by the proliferation of internet access, provided the necessary infrastructure for online learning platforms (Moore, Dickson-Deane, & Galyen, 2011). Academic institutions began adopting distance learning to offer flexible, accessible, and diverse educational opportunities, addressing the needs of non-traditional students, working professionals, and international learners. The COVID-19 pandemic further accelerated the adoption of distance learning as schools and universities worldwide transitioned to online platforms to ensure educational continuity (Dhawan 2020). This shift has highlighted the importance of technology in education and spurred innovation in digital learning tools and methodologies.

**Table 1.4.2. Distance Learning Timeline**

| <b>Type</b>                                         | <b>Year</b> | <b>Description</b>                                                                                                                                   |
|-----------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>University of London</b>                         | 1858        | Offered Full-distance learning classes by Snail Mail                                                                                                 |
| <b>Distance Learning in America begins</b>          | 1873        | First mail-based correspondence                                                                                                                      |
| <b>Written Era</b>                                  | 1920's      | Mail-in Education Method                                                                                                                             |
| <b>Radio and Television Era</b>                     | 1920s-1970s | Audio and Visual Learning                                                                                                                            |
| <b>Correspondence Program</b>                       | 1979        | Mailed educational materials                                                                                                                         |
| <b>University of Chicago</b>                        | 1982        | The term Distance Education was first used                                                                                                           |
| <b>University of Phoenix</b>                        | 1980 - 1986 | First Undergrad Course after the Internet became available                                                                                           |
| <b>UK Open University</b>                           | 1989        | Online Course Big Scale                                                                                                                              |
| <b>CALC Campus Online Biggings</b>                  | 1994        | Computer Assisted Learning Center                                                                                                                    |
| <b>California Virtual Campus / Jones University</b> | 1997        | North Central Accreditation                                                                                                                          |
| <b>Journal of Asynchronous Learning Networks</b>    | 1999        | Solid research foundation for online education                                                                                                       |
| <b>Open courseware OCW</b>                          | 2000's      | MIT free online learning resource                                                                                                                    |
| <b>MOOC</b>                                         | 2007        | Massively Open Online Course                                                                                                                         |
| <b>Online users expansion</b>                       | 2009        | Online Students 180% increase                                                                                                                        |
| <b>Mobile Learning:</b>                             | 2010        | The rise of smartphones and tablets facilitated mobile learning (m-learning). Educational apps and mobile-responsive LMS platforms allow students to |

|                                     |      |                                                                                                                                                                                                                                                                             |
|-------------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     |      | access content anytime.                                                                                                                                                                                                                                                     |
| <b>Blended Learning:</b>            | 2014 | The integration of online and in-person learning, known as blended learning, became more prevalent. Schools and universities adopted flipped classroom models, where students watched lectures online and engaged in interactive activities in the classroom.               |
| <b>Online programs increased</b>    | 2015 | 98% of institutions had some kind of online program                                                                                                                                                                                                                         |
| <b>COVID-19 Pandemic and Beyond</b> | 2020 | The COVID-19 pandemic forces a global shift to online learning, with tools like Zoom and Microsoft Teams becoming essential for virtual classrooms.<br>Educational institutions rapidly adopt and expand their use of LMS platforms to manage the shift to online learning. |
| <b>Hybrid Learning Models</b>       | 2021 | As schools and universities began reopening, hybrid in-person and online learning models became the norm. Institutions invested in advanced LMS platforms and digital tools to support this new approach.                                                                   |

(Kentnor 2015), (Andreas 2020).

### **1.5 The U.S. Army's use of distance learning**

In 1979, the U.S. Army introduced its force to the Army correspondence course program. The Army Correspondence Courses Program was a type of distance learning education non-technological platform, and it was the formal non-resident educational system of the United States Army Training and Doctrine Command (TRADOC). During this time, soldiers were only allowed to take one course per enrollment, with the addition of one sub-course. After enrolling in the courses, the soldier would receive a package via snail mail containing the booklets and testing sheets required to complete the course. Once the course was completed, the student was responsible for returning to the post office and sending the materials back to be evaluated. The whole educational structure was based on the integrity system (Saba, 2014).

Each course was awarded a specific number of credit hours. The number of credit hours was based on the estimated time it would take to complete each course. Then, the soldiers could convert those credit hours into promotion points under the legacy promotion system. In 2001, the Army launched Electronic Army University "eArmyU." The Army introduced its soldiers to one of the most innovative E-learning programs the armed forces could use. This educational initiative offered regular active-duty and Active Guard Reserve (AGR) enlisted soldiers the opportunity to earn a college degree or certificate anytime, anywhere, across the Army's global enterprise, regardless of their geographical location or operational environment, via the Internet. (Eskey 2002), The program offered academic access, a choice of educational institutions, and time flexibility in an online virtual learning environment. EArmyU managed to successfully reach a new generation of a soldier that was more academically inclined or who joined the military with the sole purpose of earning their college education for free with the secondary goal of going back to the civilian workforce feeling more empowered or staying in the military and transferring from the enlisted side into the officer's side, so they would not have to remain enlisted soldiers during

their time in service. Service members need a minimum of a bachelor's degree to obtain a military commission in the officer's branch (Ausa 2003).

Enlisted soldiers are only required to have earned a High School diploma to be able to join the ranks. These soldiers can be recruited from the neighborhood streets of the poorest towns of every State in the nation. Army recruiters appropriately trained in marketing, social psychology, and sales frequently reach these demographic groups (Woodruff 2017).

On the contrary, Neiberg (2000) said that commissioned officer candidates are admitted into the Armed Forces from the Reserve Officer Training Corps (ROTC) programs offered at high-end universities, military colleges, and academies such as West Point in Upstate NY, and the Virginia Military Institute (VMI). Furthermore, another group of officers can earn a direct commission from a program that recruits medical doctors or medical field personnel with specialized training or credentials that the armed forces need, such as dentists, nurses, social workers, and helicopter pilots. Rasmussen (2012) said that commissioned officers' indoctrination empowers them and has them strongly believe that they are the “tip of the spear” in the military since they are the ones who can go up the ladder to the rank of General. However, this is not far from the fact that military officers command enlisted units, battalions, divisions, and brigades. In contrast, enlisted soldiers, senior NCOs (non-commissioned officers), and sergeants do not get to command or assume those roles.

They are also trained to stay in the role of subordinates, who provide the manual labor while the officers do the upper management. That may occur because enlisted soldiers, even though they are respected at the senior levels, are not trusted enough to assume such high-end military roles due to their lack of Higher Education and Credentials (Asriyev & Alexey 2014). Hence, these differences often set the tone for the current military culture, and it has been since its foundation on June 14, 1775. Gary and Volker (2009) stated that to understand how the U.S.

military is divided and structured in civilian terms, Commissioned Officers are the CEOs or CFOs and hold upper management positions, while enlisted soldiers, known as non-commissioned officers, are often referred to as Sergeants or senior enlisted personnel, and are considered manual labor employees.

Joseph M. Byerly (2013) noted that military culture and the interaction dynamics between enlisted personnel and commissioned officers may have shifted with the introduction of distance learning technology, specifically e-learning, which emerged in 1989. Lower enlisted and senior NCOs can attend college online and earn their degrees. At the same time, they serve full-time, which could also have led to the development of a more innovative, technology-savvy, and internally empowered enlisted force. The author also stated that this was possible due to the introduction of the New Electronic Army University System in 2001, which gradually replaced the Correspondence educational system. Katherine (2001) reported that the Army's modernization plan initiated the Army University Access Online program in January 2001, six months after it was announced by the then-Secretary of the Army, Louis Caldera. Also referred to as Army Regulation 621-5 or E-Army-U, this cutting-edge online learning program allows qualified soldiers to earn a college degree or certificate at any time and from anywhere. Initially, the program was rolled out at Fort Benning, Georgia; Fort Campbell, Kentucky; and Fort Hood, Texas, before being expanded across the Army in 2005. Furthermore, the Distributed Learning System and the Army Learning Management System represent a contemporary and validated instructional approach used by the Army to provide individual, collective, and self-development training and education to soldiers, leaders, and Army civilians at any time and from any place. Instructors can be integrated into the learning process, or content can be presented as stand-alone products (Cac 2010).

Dian Stoskopf and Amy Moorash (2019) published that the eArmyU program introduced college-level Army education through the World Wide Web. It provided active duty enlisted soldiers easy access to 138 online certificate and degree programs offered by 25 regionally accredited colleges and universities. Through eArmyU, soldiers can now earn a postsecondary certificate or an associate's, bachelor's, or master's degree from their home institution while taking courses from multiple eArmyU education partners. (U.S. Army, "Distributed Learning System). Those credits were transferred and accepted across institutions, enabling soldiers to quickly make progress toward their educational goals as they transitioned every three years from one military installation to another (Michael 2002).

Hawkins (2002) stated that one of the primary strategic purposes of the military in investing resources to implement the E-learning in-house system was to use it as a retention tool and hopefully have military personnel stay long enough in the service that they would commit to reaching their military retirement instead of just taking full advantage of this new technological educational system during their first or second enlistment terms then leave the military to go into the civilian sector. Micheal (2015) said that one of the army's initiatives to promote its new online learning system was to offer a free laptop computer to those soldiers who would commit to enroll and complete a minimum of 12 semester hours of coursework in three years, meaning that if the participant did not have three years remaining in his enlisted contract the service members had to reenlist or extend their time commitment.

Devon (2012) stated that the eArmyU program was also open to commissioned officers who wanted to continue their education and earn their Master's degree from the participating institution of their choice.



### **1.5.1 The Electronic Army University Program**

eArmyU, short for the Army Electronic University Access Online, was an ambitious initiative launched by the U.S. Army in the early 2000s to provide soldiers with access to postsecondary education and training online. The program aimed to enhance soldiers' professional development, improve retention rates, and increase the attractiveness of Army service by offering educational opportunities (Rob 2011).

Growth in Participation: eArmyU experienced rapid growth in enrollment after its inception. The program partnered with accredited colleges and universities to offer online courses and degree programs, making higher education accessible to soldiers stationed worldwide. The expansion of eArmyU was facilitated by advancements in online learning technologies, including learning management systems, virtual classrooms, and digital libraries. These technologies enabled soldiers to participate in courses asynchronously, accommodating their varying schedules and deployments. (Bruce 2005). EArmyU expanded its curriculum to include military science degree programs, from certificate courses to bachelor's and master's degrees. This diversification catered to the Army personnel's varied interests and career goals. By October 2005, over 60,000 soldiers had taken courses through eArmyU. Since its launch, the Army has revised eligibility requirements to broaden access to educational opportunities for a larger soldier population. Starting on October 1, 2005, the Army modified reenlistment criteria to widen eligibility for two eArmyU options, eCourse and the Technology Package (Leonard 2017).

The eCourse option was made available to all officers, and the specific reenlistment requirements for the Technology Package were removed. The eCourse program allows enrollment on a course-by-course basis and is available to all eligible soldiers with a computer or access to one. Regular Army, Active Guard, and Reserve soldiers may qualify for eCourse enrollment. Soldiers enrolling in an eCourse are not required to reenlist, but they must have sufficient time

remaining in service to complete their chosen course. Commissioned officers and warrant officers will incur a two-year active duty service obligation. (Ausa Institute of Land Warfare 2005).

### **1.5.2 Integration into the Broader Army Educational Framework:**

In recent years, the Army has transitioned from eArmyU to a more comprehensive approach to education and professional development under the umbrella of Army University. This new framework aims to unify and streamline educational opportunities for soldiers, incorporating online learning as a critical component alongside traditional classroom-based instruction. (Clowser 2015).

### **1.5.3 Statement of the Problem**

Distance learning technology is commonly used in the United States Army to attract recruits and improve retention, but its actual effectiveness has not yet been determined. The United States Army Recruiting and Retention Command's primary mission is to recruit new personnel and retain as many enlisted seasoned personnel as possible to maintain a balanced fighting force composed of new young recruits and battle-tested senior leadership. This exploratory study will focus on the following topics to identify critical points necessary for evaluating the usability of distance learning technology in the U.S. Army.

- **Evaluating Effectiveness**

By undertaking this research, the U.S. Army will gain valuable insights into how its distance learning initiatives affect soldier performance, retention, and career progression, especially in interactions with commissioned officers who hold college degrees. This analysis will identify opportunities for refinement, aiming to improve the quality of the Army's distance learning programs for recruitment and retention objectives.

- **Identifying Challenges**

This study can also help identify potential challenges or drawbacks of distance learning, such as technological barriers or difficulties adapting to remote learning environments. Understanding these challenges can help the U.S. Army develop strategies to address them and ensure that distance learning is accessible and effective for all soldiers, regardless of conditions, during both peacetime and wartime.

- **Enhancing Retention and Recruitment**

This study assesses how distance learning influences the admission and retention of United States Army enlisted soldiers and their perceptions of commissioned officers' leadership roles, often attributed to their pre-existing bachelor's degrees. Kane & Tremble (2000) stated that enlisted soldiers do not usually start in leadership roles due to the educational prerequisites for commissioning. By understanding these dynamics, the U.S. Army can develop approaches to improve soldiers' experiences and boost their desire to stay, which is especially critical in today's competitive job market.

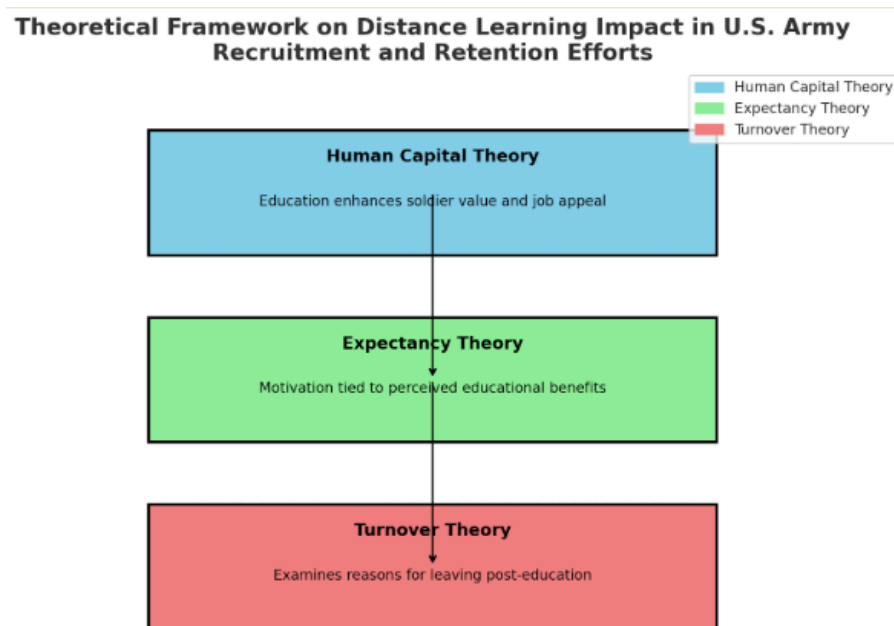
- **Meeting Changing Needs**

Wong, Bliese & McGurk (2003) said that as the Army adapts to changing technological and societal trends, it is essential to understand how distance learning fits into the overall strategy for recruiting and retaining soldiers who are not college educated and those who have already earned a college degree at the Bachelor's or Master's level. This study ensures that distance learning is aligned with the Army's broader goals and retention objectives, so that soldiers trying to earn a commission can do so and serve in leadership roles equal to those of their commissioned team leaders. Studying how distance learning technology has impacted soldiers' life dynamics and service retention can help the Army ensure that its distance learning programs are effective, accessible, and responsive to the evolving needs of today's enlisted soldiers. Furthermore, by

investing in high-quality distance learning offerings, the Army can enhance the skills and knowledge of its soldiers, improve retention rates, and maintain its status as a world-class military force.

**1.5.4 Theoretical Framework:** A conceptual framework uses established theories to define key concepts, variables, and relationships, guiding the interpretation of findings in a research study

**Figure 1.5.5**



(Creswell 2014).

- **Human Capital Theory** suggests that investments in education and training increase the productivity and value of individuals in the workforce. In the context of this research, the Army's investment in distance learning can be seen as a strategy to enhance soldiers' human capital, making military service more attractive and potentially increasing retention (Becker & Gary 1964).
- **Expectancy Theory:** This theory states that individuals are motivated to engage in behaviors when they expect their efforts to lead to desirable outcomes. How this is applied to this study: Soldiers may be more likely to enlist or extend their service if they believe that obtaining a

college degree will lead to positive career outcomes in both the military and civilian life (Wigfield & Eccles, 2000).

- **Turnover Theory** examines the factors that lead individuals to leave their jobs. This research can help explore the risk that soldiers may leave military service after obtaining their degrees to pursue civilian employment opportunities. (Weiss 2003).

The following learning theories are crucial to understanding how distance learning technology affects recruitment and retention in the U.S. Army. They offer critical insights into effective teaching methods for remote and adult learners. These theories also emphasize how students can acquire practical knowledge and skills that apply to real-world situations. Additionally, incorporating automation and technology into education is vital for military distance learning programs. For the U.S. Army, this involves using technology to streamline and expand recruitment and retention efforts, making it easier and more efficient for service members to earn a college degree while serving.

**Table 1.5.6 Online Learning Theories by Timeline**

| <b>Theory / Model Name</b>              | <b>Year</b> | <b>Description</b>                                                              |
|-----------------------------------------|-------------|---------------------------------------------------------------------------------|
| Theory of Independent Study (Wedemeyer) | 1971        | Learner autonomy and the distance between the learner and the teacher.          |
| KOLB Learning Experience (Kolb)         | 1984        | Observation and active experimenting cycle transformed into practical learning. |
| Industrialization of Teaching (Peters)  | 1988        | Learning methods using automation/technology.                                   |

|                                                    |      |                                                                                |
|----------------------------------------------------|------|--------------------------------------------------------------------------------|
| Andragogy Adult Education (Malcolm)                | 1990 | Facilitating learning for adults with the ability to self-direct and learn.    |
| Theory of Interaction and Communication (Holmberg) | 1995 | The ability to send and receive messages to gain knowledge.                    |
| Equivalency Theory (Simonson & Hanson)             | 1999 | Online and classroom-based learners would learn the same as in-person classes. |

### 1.5.7 Conceptual Framework

The conceptual framework for this study would involve several key components:

**Distance Learning Technology:** The types of online educational platforms and resources used by the U.S. Army to provide soldiers with access to education.

**Attraction to Military Service:** Factors that make military service more appealing as an employment option include the opportunity for free online education.

**Retention of Experienced Soldiers:** Strategies used by the Army to retain soldiers who have gained valuable experience and skills, and how online education plays a role in these retention efforts

**Educational Achievement and Career Aspirations:** Howard Weiss (2003) examines the relationship between soldiers' pursuit of online education and their career goals in both military and civilian life.

**Risk of Turnover:** The potential risk that soldiers may leave the military after obtaining their degrees, and the factors influencing this decision.

**Statement of the Purpose.**

This research aims to investigate the use of distance learning technology by the United States Army to enhance the attractiveness of military service as an employment option. The study explores how free online education influences recruiting new soldiers and retaining experienced personnel. Specifically, the research will examine how the opportunity for online education impacts soldiers' decisions to enlist, extend their service contracts, or leave the military to pursue civilian careers after obtaining their degrees. The study seeks to provide insights into the effectiveness of distance learning as a tool for workforce development within the military context and its implications for the Army's human capital management. This research will employ a content analysis method, utilizing qualitative data to assess the impact of distance learning on enlistment and retention rates, and analyzing data to explore soldiers' perceptions and experiences with online education and its influence on their career decisions.

### 1.6.1 Significance of the Study

#### Main points:

- To enhance recruitment and retention strategies
- To improve career development and human capital management
- To influence policy decisions on recruitment and retention program development.

The significance of this study lies in its potential to provide valuable insights into how distance learning technology affects the attractiveness of military service as a career option. The findings of this research have important implications for the United States Army's recruitment and retention strategies and its overall approach to human capital management. Enhancing Recruitment efforts can be implemented when USAREC needs to meet its yearly quota or is at risk of failing to comply with the DOD mandate. This can be done by understanding how free online education affects individuals' decisions to enlist in the military. The Army can tailor its recruitment strategies to highlight the educational opportunities available to potential soldiers. This could attract a more extensive and diverse pool of candidates interested in pursuing higher education while serving their country.

Furthermore, Young and Legree (2010) said that exploring the influential factors of online education on soldiers' decisions to extend their service contracts can provide insights into how the Army can retain skilled and experienced personnel. Retention of professional soldiers is crucial for maintaining the military force's effectiveness and readiness.

Moreover, human capital management practices can also be influenced by the findings. It can bring more awareness to the Army's human capital management practices by highlighting the role of education in workforce development (Kirchner, Michael, and Mahfuzur, 2014).

Understanding the relationship between online education and career aspirations can help the Army develop programs that align with soldiers' long-term career goals within the military and



civilian life. This study will provide insights into the effectiveness of distance learning as a tool for educating soldiers. Allen & Seaman (2017) stated that assessing distance learning effectiveness can influence decisions and policies about investments in educational technology and the development of future programs and policies that support the academic and career development needs of military personnel to enhance the overall quality of the military workforce.

## **Chapter 2**

### **2.1 Literature Review**

Integrating technology into military educational practices, mainly through distance learning (DL), represents a significant shift in how the United States Army approaches recruitment, training, development, retention, and engagement with its personnel. As the United States Army adapts to technological advancements, implementing distance learning has become critical in its recruitment and retention strategies. This literature review explores how distance learning has impacted the Army's ability to attract recruits, retain them, and enhance their career trajectories.

This literature review's scope is structured around five research questions that dissect the multifaceted impact of implementing distance learning technology within the military for recruitment and retention. See the following concept map summary.

- First, this review will evaluate the existing evidence on how distance learning technologies have influenced enlisted soldiers' recruitment and retention rates. This analysis will be crucial, as it provides insight into whether such educational innovations align with the motivations and career expectations of potential recruits.
- Secondly, the review will assess how distance learning has opened up career opportunities for enlisted personnel. This involves a detailed examination of the educational programs

available through distance learning platforms and how they are customized to meet the needs of soldiers seeking professional growth and advancement.

- The third question will explore the military leadership's strategic promotion of distance learning to cultivate a more educated enlisted force. This section delves into the military's policies, initiatives, and promotional activities to encourage the uptake of distance learning among its ranks.
- Finally, this review will consider the long-term benefits accruing to military personnel who have completed their college education through distance learning platforms. This includes analyzing career advancement, reenlistment rates, and post-military employment opportunities, which are critical indicators of the success of educational programs within the military. **See the concept map table below:**

**Table 2.2 Concept Map Table**

| Main Topic                                     | Subtopics                               | Details                                                          |
|------------------------------------------------|-----------------------------------------|------------------------------------------------------------------|
| Impact on Recruitment and Retention            | 1. Recruitment                          | Influence of distance learning on attracting recruits            |
|                                                | 2. Retention                            | How educational opportunities affect soldiers' decisions to stay |
| Career Opportunities through Distance Learning | 1. Availability of educational programs | Types and scope of programs available                            |

|                                                       |                                           |                                                                    |
|-------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------|
|                                                       | 2. Tailoring to soldiers' needs           | Customization of programs to fit career growth and advancement     |
| Promotion of Distance Learning by Military Leadership | 1. Military policies and initiatives      | Specific policies promoting distance learning                      |
|                                                       | 2. Promotional activities                 | Campaigns and outreach to encourage enrollment                     |
| Long-Term Benefits for Military Personnel             | 1. Career advancement                     | Impact of distance learning on military career progression         |
|                                                       | 2. Reenlistment impact                    | Effect on soldiers' decisions to reenlist                          |
|                                                       | 3. Post-military employment opportunities | Opportunities after military service based on the education gained |

Furthermore, this literature review aims to provide a clear understanding of the role of distance learning in shaping the modern military experience and highlight its implications for army policy through a comprehensive exploration of the research questions.

### **2.3 Impact on Recruitment and Retention**

Wilson (2003) discusses significant changes in the structure and readiness of the United States Army, emphasizing the role of education in this transformation. The author outlined the shift from a high-tempo, large force to a smaller, more strategically prepared force, noting that the future of the Army's effectiveness hinges on foundational educational reforms at the unit level by enhancing Educational Access and flexibility. Implementing technology for training also reduces the need for a large force, which in turn minimizes the need to retain career personnel. Most U.S. Army trainers are senior enlisted leaders with sufficient experience to become trainers.

Trettin, A.F. (2017) explained that the extended benefits from the eArmyU program illustrate a pivotal change in military education delivery. By broadening re-enlistment criteria and expanding program accessibility, the eArmyU initiative reflects a strategic shift towards increased flexibility and access, allowing soldiers to pursue education without the constraints of traditional classroom settings.

Noble, Cleland, and Malone (2016) published *Historical Context of Military Education*, a historical survey of the role of education within the Army's officer training, highlighting shifts over the past 75 years. The author distinguishes between pre-commission and post-commission educational phases and discusses integrating military history and practical training within different educational frameworks in the Army.

Friesen (2010) discusses the transformative potential of e-learning within the military context. Their critique of current e-learning practices underscores the necessity for high instructional quality and the strategic use of web-based technologies to enhance the educational

experiences of military personnel. Tinto, Vincent, and Brian Pusser (2006) said in the article “Veteran Education and Institutional Integration” that studies indicated that positive classroom interactions and institutional support significantly reduce the likelihood of educational discontinuation among student veterans, highlighting the importance of supportive educational environments for this demographic. The literature underscores the transformative potential of online education across various domains, including military training and higher education. The ongoing development of digital technologies continues to shape the landscape of distance learning, necessitating ongoing research and adaptation in educational methodologies.

The article “NCO to Officer” highlights the critical role of the Reserve Officers' Training Corps (ROTC), elaborates on the program's expansion and its significant contribution to the officer corps of the U.S. Army, and demonstrates discussion points to the enduring relevance of ROTC in shaping military leadership, underpinning the strategic importance of collegiate military training (Bradshaw 2017). John Arehart (2016) stated that supporting veterans through adapted educational interventions addresses the challenges wounded warriors face in higher education. The study discusses the development of supportive mechanisms to enhance veterans' academic resilience and integration into civilian educational settings. Each of these works collectively underscores a pivotal shift in military education strategies, reflecting a broader recognition of the need for adaptive, flexible, and supportive educational environments to enhance military personnel's professional and personal growth. The Army must evolve training methods in response to new challenges, as highlighted by the Noncommissioned Officer Professional Development System. Wessel, Robert (2016) said that military veterans who are transitioning to civilian life face unique challenges. This article discusses how narrative techniques can lessen the stigma of seeking mental health services and improve problem-solving and communication skills.

Peer-to-peer methods also significantly foster community connections and enhance service access. Dewan, Susan (2008) said in the article “Earning a Degree in a Combat Zone” presents the narrative of Staff Sgt. Lonnie Tungate, who completed his college education during his deployment in Kuwait, exemplifies the dedication of soldiers to continuous learning, regardless of their circumstances. Earning a college degree increases the employability of a newly separated service member.

Nelson, CW Andre (2010) stresses the necessity of continual education and training for non-commissioned officers to maintain an efficient and competent Army, highlighting education as a cornerstone of national strength. Gilchrist, Robert (2011) notes that military leadership encouraged enlisted personnel to participate in continuing education. It revealed that leadership significantly encourages continued education among enlisted personnel, with a noticeable correlation between leader encouragement and educational participation.

### **2.3.1 Career Opportunities through Distance Learning**

In the article “Poverty in the Army,” David Saunders (1969) discusses the factors contributing to poverty among soldiers, emphasizing the need for improved compensation systems and higher pay. When an individual lacks the resources to obtain an education and a career, employment options decrease. Mariel Loveland (2020) wrote in the article “Can I Earn a College Degree while Serving in the Army” that education offices on military bases guide enlisted soldiers through their educational options by underlining the potential for career advancement through education by attending college in a distance learning format. Wisher & Sabol (2002) report the details of the Army's incorporation of distance learning, focusing on its cost-effectiveness and strategic importance for training delivery when the Army Post is on

Campus. Kristin and Wilson (2013) explored how soldiers prioritize their military duties over their educational pursuits, offering insights into integrating soldiers into higher education. Schaeffer (2022) shows that recent findings indicate a decline in the veteran population, with projections showing a younger demographic in the coming decades. Sarah Wood (2019) discusses how Cornell University's initiative through the Warrior-Scholar Project helps service members transition to civilian life through Preparatory college courses.

Hudson (2009) said in the article "Cyber Recruiting" that this method targets potential recruits online, facilitating access to educational benefits and distance learning opportunities provided by the Army. Suciu (2021) said that the military uses video games as training and recruiting tools, reflecting an ongoing strategy to engage with Generation Z. Email Marketing for the U.S. Army and Special Operations Forces (SOF).

Dma (2023) said that the Army e-Learning Program, offering over 5,000 courses to soldiers and Army civilian employees, has significantly boosted training hours, recording a 53% increase between 2016 and 2018. This reflects its critical role in supporting ongoing professional development and adapting to Virtual military recruiting. The COVID-19 pandemic necessitated a shift toward virtual recruiting, including the launch of the "SFC Jared Monti Virtual Recruiting" VR experience. This adaptation has proven vital for engaging potential recruits during the social distancing measures of the United States Army. Duncan (2005) states in the "Historical Impact of Distance Learning" that the 1997 introduction of the Advanced Learning System (ADL) marked a pivotal advancement in distance education for active duty service members, significantly enhancing the Department of Defense's training capabilities. Alexander & Karim (2019) said that distance learning in recruitment research explored how distance learning tools like web-based training and virtual classrooms are integrated into recruitment strategies, assessing

their effectiveness in attracting and preparing recruits for military service. Lefebvre & Behrens (2018) report that a comprehensive review of e-learning within the military highlights its potential and challenges, emphasizing the need for careful implementation to fully leverage its benefits in recruiting and training. Stoker & Soloman (2018) stated in the exploratory study on online learning tools confirmed the widespread use of online learning tools in recruitment, suggesting they effectively meet recruitment goals. However, further research is recommended to optimize their impact.

Auman & Bradley (2017) revealed the effectiveness of web-based training in preparing recruits for basic training, highlighting areas for improvement in integration with other recruiting platforms. The Future of Military Recruitment with E-Recruiting compares traditional recruiting methods with e-recruiting. It discusses the enhanced efficiency and potential for greater diversity offered by technological integration in recruitment processes (Ryan 2018). Keegan (2014) wrote a historical overview of U.S. military recruitment, offering insights into the evolution of recruitment strategies and the significant role of technology in modern recruitment practices.

### **2.3.2 Promotion of Distance Learning by Military Leadership**

Webb (2006) notes that the U.S. The Army has conducted various management education programs for commissioned officers. In traditional and new distance education programs, the Army has established a goal of improving its students' critical thinking and reasoning skills to prepare its future leaders and managers more effectively for the challenges of the twenty-first century. The author also stated that for distance learning and traditional education programs, the successful promotion of critical reasoning and thinking skills appeared to be among the most vital factors in directly or indirectly predicting student satisfaction with instruction, overall training, and the usefulness or relevance of training.



Baecher (2002) said in the article "E-Learning is Building Engineers" that the United States Army can equip service members with skills they can use after leaving the service by using the Army distance learning program. Clemens and Milson (2008) noted that securing new jobs or careers is among the top priorities for many enlisted service members in transition. The complexity of enlisted soldiers' transitions, combined with the significant number of first-term enlisted soldiers returning to civilian life, calls for career counselors to heighten their awareness of the specific needs of enlisted service members entering or reentering the civilian sector.

Lupinski & Kaufman (2021) stated that online student success is determined by several factors: learning effectiveness, academic, technical, and administrative support, faculty satisfaction, and student motivation. These factors are part of the Online Learning Consortium's Pillars of Quality Online Education, which were established to ensure all students are provided a quality education with high levels of student engagement, instructor feedback and interaction, and experiential learning opportunities.

Darryl (2017) developed a qualitative narrative study to gain insight into how military veterans with bachelor's degrees who pursued a teaching career complied with certification requirements after separation from service in Phoenix, Arizona. Although a host of Department of Defense and Veterans Administration programs are in place to ease the transition from active duty to civilian life, beginning a career in teaching presents a unique challenge because of the mandatory certification requirements needed to teach in public schools. The certification process to become a teacher is extensive, time-consuming, and varies by state program.

Cates (2017) stated that attending college-level classes and using tuition assistance seems simple, but time management and cultural traditions can get in the way. Leaders in some career fields or specific assignments state they need more time to allow soldiers to attend college. The result can be that after soldiers complete their 2, 3, or 4-year commitment, they leave the military

less prepared due to a lack of credentials and knowledge. For the Army, if a soldier does not find employment immediately after leaving the military, the Army incurs an expense for unemployment benefits. One way to benefit the Army is to invest in our soldiers by advocating for self-development through tuition assistance.

Kathleen & Quinkert (2007) mentioned that Army training has evolved due to changes in the war-fighting environment and is influenced by paradigm shifts in learning science. The Army aims to develop leaders for the 21st Century. The Morrill Act of 1862 discusses the citizen-soldier principle, a legacy of Britain's colonial occupation. Defining the medium of military education in a free society has often been troublesome. In the United States' history, this was further complicated by a legacy of suspicion toward a professional military and a concurrent emphasis on developing citizen soldiers (National Archives Gov, n.d.). Lee (2006) said that the U.S. government founded public higher education institutions devoted to agriculture, mechanics, and the military arts.

Judith (2022) talks about women in the U.S. military who are enlisted today and have continued to serve under various implicit contracts, which differ in each branch of the service. For example, in the Navy, women agree to meet higher enlistment standards than those set for men; this is not required of Air Force women. Air Force women have long competed with men in promotion; Army women have not.

Cordesma & Hwang (2020) noted that marine enlisted women have always been segregated from men during basic training; women and men in the other services have trained together. However, the most dramatic differences in women's implicit contracts are found not by contrasting the terms set by each service, but by examining how those terms have changed over time. The Department of Defense (2022) analysis has shown that the U.S. needs to revise its strategy to focus at least as much on using its military forces in gray areas and limited operations

by country and region on a global level. It has also shown that competition with China and Russia must be assessed on a civil-military level and in ways that provide precise assessments of current trends and the requirement for the U.S. to act on grand strategic terms. Overall, the U.S. military is far better educated than the American population it defends. In 2010, 82.8 percent of U.S. military officers had at least a bachelor's degree, compared to 29.9 percent of the general population. 93.6 percent of enlisted soldiers had at least a high school diploma, compared to 59.5 percent of Americans.

### **2.3.3 Long-term Benefits for Military Personnel**

Kizer and Suzanne (2019) examine various aspects of military life, transition challenges, and the benefits afforded to service members. The article highlights the contrast between the military's practical training for operational roles and its inadequate preparation for veterans re-entering civilian life. Moreover, the authors also said that military work is characterized by physical and mental demands, with service members expected to maintain high readiness levels for deployment and challenging work scenarios and environments; the review addresses the balancing act required in military life due to long hours, frequent moves, and deployments, which it can prepare newly separated service members for the challenges of civilian life.

Ziencik (2022) notes that the U.S. Department of Veterans Affairs and the U.S. Department of Defense underscore that military service enhances career prospects through specialized training and comprehensive benefits, including education, healthcare, and housing. Ronald Gilchrist (2011) explored how civilian education impacts performance and career advancement within the army, indicating that lifelong learning is critical for professional growth. Hernández & Silgo (2021) investigated the benefits of mental conditioning training on military personnel, focusing on how the Psychological Ownership Behavior (POB) approach, “the study

and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace” (p, 537) impacts both employer and employee once veterans enter the civilian work sector. The study suggests that there are long-term benefits to improved psychological well-being and optimism, although it notes the need for extended follow-up periods to confirm these effects.

Gade (1991) examines the long-term effects of military service on veterans, particularly how it affects their reintegration into civilian life and their long-term outcomes. This research marks a crucial turning point by suggesting that long-term planning and support for veterans are essential for successful transitions to post-military life. Artino & Cruess (2012) examined the impact of military medical education over 40 years, focusing on the benefits to military members, their families, and society. The study highlights significant practical outcomes, including enhanced career progression and improved quality of life, underscoring the value of higher education in the military. Kosiak & others (2008) discussed the challenges of maintaining a high-quality military workforce over the long term. The study highlights the importance of non-cash benefits and career development opportunities to retain skilled personnel; Simon & Warner (2010) analyzed the effects of educational benefits on military service decisions, finding that such benefits significantly influence both enlistment and reenlistment decisions. The study emphasizes that educational opportunities can lead to higher separation rates due to successful career transitions post-service.

### **Research Questions.**

- **Research Question 1:** What evidence is there that the introduction of distance learning technology in the United States military impacts the recruitment and service retention rate of enlisted soldiers today?

- **Research Question 2:** What evidence is there that distance learning technology enhances career opportunities for enlisted personnel in the United States Army?
- **Research Question 3:** What evidence shows that the military promotes distance learning technology to its enlisted soldiers to generate a more educated force, and if so, what strategies are used?
- **Research Question 4:** What evidence is there of long-term benefits for military enlistees who completed college programs?
- **Research Question 5:** What evidence is there that the cost of implementing distance learning technology outweighs the benefits?

#### **2.3.4 Summary**

Based on this literature review and background information, this study will focus on five research questions to examine how the U.S. Army strategically employs distance learning (DL) technologies to enhance recruitment and retention. It highlights the integration of DL into educational programs, emphasizing flexibility for personnel in remote locations. Key benefits include improved accessibility, higher training quality, and opportunities for pursuing higher education while serving, making military service more attractive for career advancement in both the Army and the private sector. Additionally, DL fosters career development by enabling continuous education without the need for physical attendance, appealing to a tech-savvy demographic essential for recruitment in a competitive job market.

## **Chapter 3**

### **Methodology, Objective, and Scope**

#### **3.1 Introduction**

Content analysis using the mixed-methods system is a systematic, rigorous approach to analyzing textual, visual, or audio data. It involves identifying the content's patterns, themes, or meanings to understand more profound underlying messages, cultural contexts, or social phenomena.

(Krippendorff, K. 2013). Mixed-methods cross-verifies findings using both qualitative and quantitative data, reducing bias and subjectivity. (Hanson-DeFusco 2023).

#### **Mixed-methods**

In today's rapidly changing world, understanding human experiences and societal challenges often requires more than just one research approach. That's where mixed methods research (MMR) comes in by combining both qualitative and quantitative techniques, it offers a well-rounded and deeper understanding of complex issues. This approach allows researchers to harness the strengths of both types of data, providing a more complete picture than relying on just one method alone (Creswell & Plano Clark, 2018).

At its core, mixed methods research connects the dots between quantitative and qualitative data. While quantitative research focuses on measuring variables, identifying trends, and drawing statistical conclusions, qualitative research adds depth by exploring context, emotions, and underlying meanings. Together, these approaches offer a more comprehensive way to address intricate topics like healthcare inequalities, educational success, and workplace dynamics (Tashakkori & Teddlie, 2021).

This method is particularly valuable when it's essential to grasp both statistical patterns and the personal experiences that drive them. For instance, in research, analyzing qualitative textual data can reveal overarching trends, while quantitative textual data provides deeper, firsthand insights that contribute to more informed and effective policy-making (Plano Clark & Ivankova, 2016).

- **Data Collection**

The materials that will be analyzed will include written texts, Journals, books, articles, and other forms of past research conducted on the same or correlated subject of distance learning technology implementation.

- **Definition of the Unit of Analysis**

This study's primary unit of interest includes words, sentences, paragraphs, entire texts, and themes relevant to the research questions.

- **Development of Categories and Coding Scheme**

In general, categories for content analysis can be generated either inductively from the data itself or deductively from existing theories or previous research. In this study, I will create a coding scheme to categorize the data systematically. Below is an example of the coding used for this research.

**Table 3.2 Code Sample**

|                                  |
|----------------------------------|
| Positive Impact on Recruitment   |
| Positive Impact on Retention     |
| No Impact on Retention           |
| Negative Impact on Retention     |
| No Impact on Recruitment         |
| Promotion Opportunities          |
| Skill Development                |
| Lateral Career Moves             |
| Communication Strategies         |
| Incentives                       |
| Integration into Career Planning |
| Career Advancement               |
| Civilian Opportunities           |
| Personal Development             |
| High Costs                       |
| Low Return on Investment         |
| Benefits Outweigh Costs          |
| User Satisfaction                |
| Barriers to Career Opportunities |
| Lack of Support by Leadership    |

- **Coding**

The study will be coded by assigning pieces of content to the predefined categories. This process can be done manually or with qualitative data analysis software. This process includes studying patterns, frequencies, and connections in the data to draw meaningful insights.



Interpretation involves putting these findings into the context of the research questions, theoretical framework, and existing literature. See the research questions below.

- **Research Question 1:** What evidence is there that the introduction of distance learning technology in the United States military impacts the recruitment and service retention rate of enlisted soldiers today?
- **Research Question 2:** What evidence is there that distance learning technology enhances career opportunities for enlisted personnel in the United States Army?
- **Research Question 3:** What evidence is there that the military promotes distance learning technology to its enlisted soldiers to generate a more educated force, and if so, what strategies are used?
- **Research Question 4:** What evidence is there of long-term benefits for military enlistees who completed college programs?
- **Research Question 5:** What evidence is there that the cost of implementing distance learning technology outweighs the benefits?

The table below is a starting point that needs to be refined and expanded as I gather more data and get into the specifics of the research. Each code will be used to tag relevant segments of various sources like texts, books, journals, and documents to help with the analysis and answer to the research questions. As I collect data, it will be necessary to revisit and adjust the coding framework, allowing new themes and insights to emerge. This approach means breaking down broad topics into more specific subcodes; for example, a main code like "Recruitment Impact" might include subcodes such as "positive impact, negative impact, and technology Integration." I can also add contextual codes to capture the sentiment data of enlisted soldiers, such as "User satisfaction and career advancement," which will add depth to my analysis. Adding a memo and

description with definitions and examples will also help me maintain consistency in the coding process.

### 3.3 Code and Table Description Table

| Code                                     | Description                                                                      | Related Research Questions |
|------------------------------------------|----------------------------------------------------------------------------------|----------------------------|
| Recruitment Impact<br>(Di Ruggiero 2025) | Evidence of how distance learning technology affects the recruitment of soldiers | 1                          |
| Retention Impact<br>(Trettin 2017)       | Evidence of how distance learning technology affects the retention of soldiers   | 1                          |
| Career Opportunities<br>(Swanson, 2024)  | Evidence of how distance learning enhances career opportunities for soldiers     | 2                          |
| Distance Learning Promoting (Hull, 2024) | Strategies used by the military to promote distance learning among soldiers      | 3,5                        |

|                                            |                                                                                              |              |
|--------------------------------------------|----------------------------------------------------------------------------------------------|--------------|
| Educational Force (Girard 2025)            | Evidence of the military's efforts to create a more educated force                           | 3,5          |
| Long-term Benefits Karasewich, (T.A 2024). | Evidence of Long-term benefits for soldiers who completed college programs                   | 4            |
| Distance Learning Technology (Sovhar 2024) | Information about the types of distance learning technology used in the U.S Army             | 1, 2, 3,5    |
| Educational Programs. (Erasmus 2025).      | Details about the educational programs available through distance learning in the U.S. Army. | 2, 3, 4      |
| Career Enhancement (Pennington, 2024).     | Positive Military Career Effects due to Online Classes in the U.S Army                       | 1, 2, 3, 4.5 |

|                                              |                                                                                                                                              |            |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Return On Investment<br>(Andrews 2010)       | Defense budget allocation for educational benefits and certifications for retention and recruitment incentives effectiveness in the U.S Army | 5          |
| Monetary Cost of Education<br>(Sizer 2018)   | Defense budget expenses in educational and U.S Army recruitment and retention incentives                                                     | 5          |
| Educational Retention Budget<br>(Hart 2015). | Retention and Recruitment allocated budget for the U.S Army Recruiting Command                                                               | 5          |
| Policy and Regulation<br>(Osorio 2024)       | Policies or regulations related to distance learning in the military                                                                         | 1, 2, 3, 4 |

- **Reporting and findings**

The findings of this research will be represented by quotes to illustrate the themes and categories discovered during the analysis. Depending on the nature of the findings, this will

consist of frequency counts, thematic descriptions, or narrative analyses. It will contain illustrative samples, including direct quotes, excerpts, or images from the analyzed content generated by the analysis software platform as visualizations.

### **3.3.1 Methodology: Content Analysis**

This study employs content analysis to explore how distance learning technology impacts recruitment and retention in the United States Army. The research will examine whether this technology enhances or hinders the Army's efforts to recruit and retain soldiers, with a focus on personnel management. Additionally, it will investigate whether distance learning supports the academic advancement of enlisted personnel without college degrees. The primary focus will be on the implementation and usage of DL technology, analyzing its role in attracting and retaining Army personnel. The study will also assess whether the Army promotes online education through this technology as a pathway for soldiers to earn college degrees. Content analysis was selected as the research method due to its essential role in qualitative studies, making it a valuable tool in social science for examining the effects of distance learning on recruitment and retention in the U.S. Army. This study will examine documents, journals, books, and U.S. Army Regulations.

### **3.3.2 Content Review**

This study will employ content analysis to methodically review and analyze peer-reviewed literature on distance learning technologies within the military context. This technique will provide an objective framework for evaluating how the United States Army incorporates and highlights its distance learning programs in recruitment and retention campaigns. Through content analysis, I can systematically count and analyze occurrences of specific themes or messages related to recruitment and retention, turning qualitative discussions into readable visualization data (Krippendorff, K, 2013).

**3.3.3 Data visualization:** This data graphical presentation method, designed to ensure easy readability, will help assess the prominence of distance learning technology within the Army's strategies for attracting and keeping personnel. Moreover, the analysis will uncover patterns and trends regarding the effectiveness of this technology, the advantages of long-distance academic information sharing, and the evolving patterns (Riffe, Lac & Fico, F. 2014).

### **3.4 Research Objectives**

#### **Analyzing the Impact of Distance Learning Technology on Recruitment:**

- Assess how the implementation of distance learning technologies has influenced new recruits joining the U.S. Army. This includes examining trends in recruitment and retention of personnel after the introduction of distance learning technology-based programs.

#### **To Evaluate Distance Learning's benefits and limitations:**

- Investigate the benefits and limitations of distance learning in retaining soldiers, mainly focusing on whether access to these educational tools encourages soldiers to extend their service beyond initial commitments.

#### **Examine if the benefits of distance learning implementation and usability outweigh the risks at the personnel satisfaction level:**

- The implementation of distance learning within the United States Army could offer significant potential benefits, such as enhancing accessibility to education, improving professional development opportunities, and fostering career growth for both new enlisted recruits and seasoned enlisted soldiers. By providing flexible, scalable, and cost-effective learning solutions, distance education can help attract

new recruits who value personal and professional development while retaining experienced personnel who seek continuous skill advancement without disrupting their service obligations. However, these advantages must be weighed against potential risks, including the financial investment required for infrastructure, content development, and training support, as well as challenges in ensuring engagement, security, and equitable access across diverse Army personnel. Analyzing whether these benefits surpass the costs is essential to determining the feasibility and long-term value of this initiative

**To Examine the Operational Implementation of Distance Learning Programs:**

- Analyze the operational aspects of distance learning within the U.S. Army, including the programs, the technology platforms used, and the accessibility for soldiers in various roles and locations.

**To Assess the Effect of Distance Learning on Meeting Annual Recruiting and Retention Targets:**

- Evaluate how distance learning initiatives correlate with the U.S. Army's success in achieving its yearly recruiting and retention goals. This includes critically analyzing strategies to promote these educational opportunities to potential and current soldiers, drawing from literature and publications that are available from the United States Department of Defense and the United States Army Recruiting and Retention Command.

**To Explore the Long-Term Impacts of Distance Learning on Army Personnel:**

- Investigate the long-term benefits and drawbacks of distance learning for Army personnel, considering the following factors: The improvement of quality of life

after the end of the military career or during active duty time, new skill sets, personal development, and personal financial growth and earning potential.

**To Provide Recommendations for Enhancing Distance Learning's Effectiveness in Recruitment and Retention:**

- Based on the findings, strategies for optimizing distance learning technologies to improve recruitment and retention rates should be recommended. This may involve suggestions for program improvements, marketing approaches, and policy adjustments.

By addressing these objectives, the research aims to provide comprehensive insights into the role of distance learning technology in shaping the U.S. Army's recruitment and retention outcomes.

### **3.4.1 Operational Definitions of The Research Questions**

- Research Question 1: **What evidence is there that the introduction of distance learning technology in the United States military impacts the recruitment and service retention rate of enlisted soldiers today?**
  - Operational Definition of "Distance Learning Technology." Electronic platforms and tools deliver educational content and interaction between instructors and students without physical presence in a traditional classroom setting. (Moore & Kearsley, 2001).
  - Operational Definition of "Recruitment Rate". The number of new enlistees in the United States military during a specified period is measured as a percentage of the total eligible population or as a raw number. (Asch and Hosek 2009).



- The Operational Definition of "Service Retention Rate" is the percentage of enlisted soldiers who choose to reenlist or extend their service beyond their initial contract period within a given time frame (Griffith 2008).
- Research Question 2: **What evidence is there that distance learning technology enhances career opportunities for enlisted personnel in the United States Army?**
  - Operational Definition of "Career Opportunities": The availability of advancement paths, educational programs, skill development courses, and other opportunities that contribute to the professional growth and progression of enlisted personnel in the United States Army (Kelty, Kleykamp, and Segal 2010).
  - Operational Definition of "Enhancement": The measurable improvement or increase in the quality, quantity, or accessibility of career opportunities for enlisted personnel due to the introduction of distance learning technology (Hawley 2020).
- Research Question 3: **Does the military promote distance learning technology to its enlisted soldiers to generate a more educated force, and if so, what strategies are used?**
  - Operational Definition of "Promote the Use" The military's strategies, policies, and initiatives to encourage or facilitate the adoption and utilization of distance learning technology among enlisted soldiers (Jones & Smith, 2021).
  - Operational Definition of "More Educated Force": An increase in the average level of education, measured by the attainment of degrees, certifications, or completion of educational programs, among enlisted soldiers in the military (Bell & Harrison, 2019).

- Research Question 4: **What evidence is there of long-term benefits for military enlistees who completed college programs?**
- Operational Definition of "Long Term Benefits". In the context of military enlistees who have completed a college online program, the measurable advantages or positive outcomes persist over an extended period following the completion of higher education for enlisted soldiers who have served in the military (Elder et al. 2010).
- Research Question 5: **What evidence is there that the cost of implementing distance learning technology outweighs the benefits?**
  - The Operational Definition of "Return on Investment". The benefits of investing resources to increase personnel recruitment and retention (Smith, J., 2020)
  - Operational Definition of "Objective gains": The measurable improvement or increase in the expected result and outcome (Hawley 2020).

### 3.5 Data Sources

Data collection will involve accessing sources such as the official U.S. Army NCO journals, electronic library databases, and non-classified materials that are openly accessible to researchers. The process will entail conducting searches to discover patterns, terminology, and key phrases within historical and contemporary research articles on the topic of this study. This will be achieved through a systematic examination and compilation of text sets, which will then be transformed into analyzable data through a coding process. This coding process will enable the conversion of the content into visual qualitative representations derived from the literature analysis. The methodology will include analyzing multiple text readings to pinpoint principal themes or concepts by employing a Dedoose computer-assisted research tool to detect patterns and trends within the data. Once essential words, key phrases, and terms are identified, they will

be coded or categorized based on their significance or relation to the research questions of this study. This will involve inventing a coding scheme or categories to structure and examine the data. The data sources are as follows:

### **3.5.1 NCO Journals**

Scales, R. H. (2013) said that non-commissioned officer journals were written to record and archive vital information that transformed the United States NCO Corps into a more effective fighting force to defend the country from foreign and domestic threats. Wilson (2018) stated that NCO Journals provide firsthand accounts and perspectives from the NCOs who play a pivotal role in the daily operations and training within the Army. These journals often contain articles, reports, and personal narratives that offer insights into the experiences, challenges, and successes of using distance learning technology in various military contexts. Smith & Smith (2020) mentioned that as NCOs are directly involved in enlisted soldiers' training and professional development, their journals can provide rich, qualitative data on how distance learning is perceived and utilized at different levels of the military hierarchy. The authors also said that the journals reflect the evolving policies, practices, and trends in military education and training. They often discuss the latest developments in distance learning technology, including online courses, virtual simulations, and other digital tools that are being integrated into the Army's training programs. This makes them a valuable source of information for understanding how distance learning is implemented and impacts the Army's overall training and readiness.

Moreover, Dailey (2015) stated that NCO Journals can provide evidence of the effectiveness of distance learning in addressing specific recruitment and retention challenges. For example, journal articles may highlight successful initiatives where distance learning has been

used to attract recruits with specialized skills or to provide flexible education options that encourage soldiers to re-enlist. Johnson (2019) states that researchers can gain insights into the strategies and outcomes of using distance learning as a recruitment and retention tool by analyzing case studies.

Doe (2021) said that NCO Journals are accessible and regularly published, making them a reliable and up-to-date source of information for researchers. The journals' focus on the practical aspects of military life and training ensures that the content is relevant and applicable to the research topic of distance learning implementation in the Army.

NCO Journals are an excellent source of data for research on distance learning technology in the U.S. Army due to their firsthand accounts, reflection of current trends, evidence of effectiveness in recruitment and retention, and their accessibility and relevance.

### **3.5.2 Department of Defense Articles**

For several reasons, the United States Department of Defense (DoD) library articles are considered excellent data sources for researching and implementing distance learning technology to enhance recruitment and retention in the United States Army.

Jones & Smith (2019) said that the DoD library provides access to a wide range of official documents, reports, and publications that offer comprehensive insights into the policies, strategies, and outcomes of distance learning in the military context. Military education and training experts often author these documents, providing authoritative information.

Brown and Green (2020) said that the library's articles cover a broad spectrum of topics related to distance learning, including technological advancements, instructional design, program

evaluations, and case studies of successful implementations. This diversity of content allows researchers to explore various aspects of distance learning and its impact on recruitment and retention from multiple perspectives.

Miller and Davis (2018) noted that the DoD library articles often include empirical data and statistical analyses that can be used to assess the effectiveness of distance learning initiatives. This data can be invaluable for researchers looking to establish evidence-based conclusions about the role of distance learning in achieving the Army's recruitment and retention goals.

Wilson (2021) added that the articles in the DoD library are subject to rigorous review and vetting processes, ensuring the information is reliable and credible. This is crucial for researchers who require accurate and trustworthy data to support their findings. The DoD library is continuously updated with new publications, keeping researchers abreast of the latest developments and trends in military distance learning.

### **3.5.3 USAREC Published Literature and Books**

The United States Army Recruiting and Retention Command (USAREC) research literature and books are valuable data sources for researching the implementation of distance learning technology to enhance recruitment and retention in the United States Army. USAREC literature and books explicitly focus on the challenges and strategies related to Army recruitment and retention. This specialized focus provides researchers with targeted insights into the factors influencing recruitment and retention, including the role of distance learning technology (Smith & Johnson, 2020).

Miller & Davis (2019) stated that these sources often contain detailed analyses of recruitment and retention trends, including statistical data that can be used to measure the impact of distance learning initiatives. This data is crucial for researchers seeking to establish a quantitative link between distance learning and recruitment or retention outcomes. Furthermore, the authors stated that USAREC publications may include case studies or reports on specific distance learning programs implemented within the Army. Wilson (2022) mentioned that technology implementation case studies can provide valuable examples of best practices, challenges encountered, and lessons learned, which can inform future research and policy development.

Moreover, Johnson & Lee (2020) stated that literature and books from USAREC are likely to reflect the official policies and priorities of the Army regarding recruitment and retention. This can help researchers understand the institutional context in which distance learning technology is implemented and how it aligns with the Army's overall goals. USAREC publications are often written by experts in military recruitment and retention, providing a credible and authoritative source of information for researchers. The authors' expertise ensures that the content is informed by practical experience and a deep understanding of the subject. The United States Army Recruiting and Retention Command research literature and books are excellent data sources for research on the implementation of distance learning technology in the Army due to their specialized focus, availability of statistical data, the inclusion of case studies, a reflection of official policies, and authoritative authorship.

### **3.6 Research Scope and Limitations**

This study will focus on the period from 1997 to 2021, when USAREC encountered difficulties achieving its annual recruiting targets. This historical lens is essential for understanding the Army's evolving recruitment strategies. The inclusion of Distance Learning Technology will highlight various forms, such as online courses and virtual learning in remote combat zones, and how access to these resources might influence a soldier's decision to pursue a military career or leave after their first or second enlistment. In 2021, the COVID-19 pandemic caused a global impact, affecting recruitment and enlisted personnel retention. Lauren Reho (2024) said that the narrative around technology availability, used as part of the Army's recruiting efforts, suggests that every new soldier has the opportunity to earn a college degree during their service. This promise is often part of the verbal strategies employed by field Army Recruiters during community events to build connections and gain the trust of key community members, a practice known as forming VIP relations, a typical recruitment strategy (USAREC Manual 3-29, 2022). The research will examine how distance learning technology has been incorporated into the Army's recruiting strategies, including marketing campaigns, educational incentives, and collaborations with academic institutions.

### **3.7 The Impact on Army Personnel Retention**

The study will assess the effectiveness of distance learning technology in making military service more attractive to civilians since the EarmyU program became available in January 2001. Recruits had to agree to earn 12 credits in an academic year. As an incentive, a new IBM laptop computer and free internet came with the agreement, and this new program influenced the Army's ability to meet its recruiting goals.

### 3.8 Limitations of the study:

The study will face several constraints:

- **Availability of Data:** There may be limited access to detailed data on the specific impact of distance learning technology on Army recruitment numbers. Some information might be classified or not publicly available.
- **Causality:** Establishing a direct causal relationship between the implementation of distance learning technology and improvements in recruitment numbers can be challenging due to many factors influencing recruitment. However, the one factor that will be intensely researched is the need for the underserved population to obtain a college education, which is most likely to join the Armed Forces out of necessity for financial gains and to get out of poverty.
- **Changing Technologies:** The rapid evolution of distance learning technology means that the effectiveness of specific tools or platforms may change over time, complicating the analysis of long-term trends.
- **Subjectivity in Content Analysis:** Content analysis involves interpreting textual data, which can introduce subjectivity into the research. Efforts must ensure that the study is as objective and systematic as possible.
- **Generalizability:** The findings from this research may not be generalizable to other branches of the military or different countries' armed forces.



### **3.9 Data Collection and Analysis**

#### **Purposive Sampling**

In content analysis research, Patton (2015) uses purposive sampling to select texts, documents, or media content that are representative or relevant to the research question. This sampling method will be used to choose various forms of distance learning and U.S. Army educational technology implementation literature, journal materials, and past research documents that meet the essential criteria for this research and have a high content relevance to the research questions. This method was selected because it focuses on the content's depth, keywords, and patterns rather than quantitative statistics. Data will be collected by combining three library digital resources and information repositories. Special attention will be given to materials specifically targeting the utilization of distance learning technology, its advantages, and disadvantages in the Army's recruitment and retention strategies.

#### **3.9.2 Library digital resources and information repositories.**

**Military & Government Collection (EBSCOhost):** This database offers full-text access to various journals, periodicals, and reports on military topics, including detailed articles on U.S. Army recruiting and retention strategies.

**NCO Journal Repository** The NCO Journal is a professional development journal for noncommissioned officers. It frequently publishes articles on U.S. Army recruiting, retention, and leadership.

**USAREC Digital Library:** The U.S. Army Recruiting Command (USAREC) Digital Library offers access to various publications, reports, and articles specifically focused on recruiting and retention.

By sorting through relevant journals, Non-Commissioned Officer Journals, Department of Defense literature, and independent research articles will be selected through access to electronic libraries. Scholarly peer-reviewed articles containing titles, keywords, themes, and categories will be analyzed via coding. Kane and Tremble Jr. (2000) mentioned that the Non-Commissioned Officer library contains peer-reviewed journals created by military leadership who wanted to research various topics of importance to educate the public. These materials are part of the Army University Press and are accessible to anyone affiliated with the U.S. Army.

The United States Recruiting and Retention Command (USAREC), the Training and Indoctrination Command (TRADOC), and the Army Education Center (AEC) were selected for this research since these military institutions work in conjunction with one another by allocating, deploying, and implementing technology resources for recruits and career Armed Forces Personnel to take advantage of educational opportunities by engaging into distance learning.

## Table of articles by theme and source

**Table 3.9.3 Table of Articles by Theme and Source**

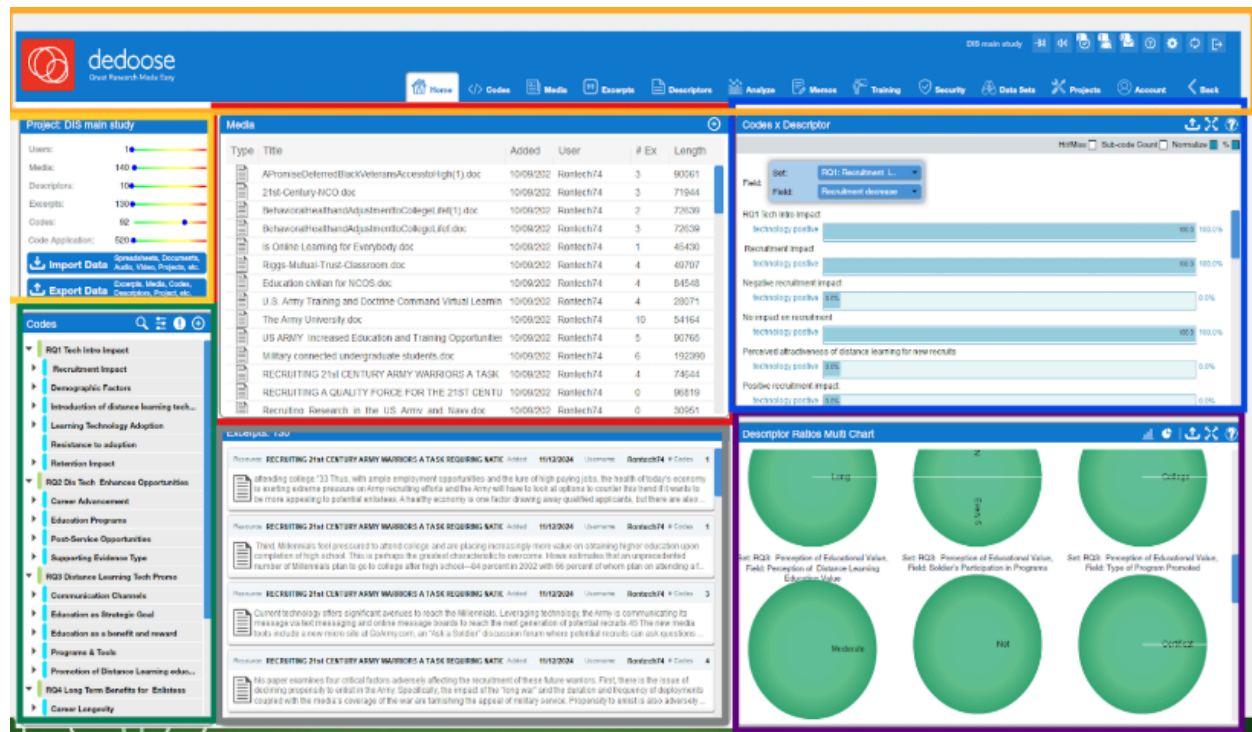
| <b>Themes</b>                                                | <b>Articles</b> | <b>Sources</b>                                                        |
|--------------------------------------------------------------|-----------------|-----------------------------------------------------------------------|
| <b>History of Education in the Military</b>                  | 52              | NCO Journal, DOD USAREC,                                              |
| <b>How is the military different from civilian education</b> | 64              | Military & Government Collection (EBSCOhost), NCO Journal             |
| <b>History of Online Education</b>                           | 120             | DOD, Military & Government Collection (EBSCOhost)                     |
| <b>History of Technology Distance Learning</b>               | 65              | Military & Government Collection (EBSCOhost), DOD USAREC, NCO Journal |
| <b>Military member's advancement</b>                         | 83              | NCO                                                                   |
| <b>Nature of military education and career progression</b>   | 85              | Military & Government Collection (EBSCOhost), DOD USAREC, NCO Journal |
| <b>Military duties, occupations, and recruiting</b>          | 98              | NCO Journal, DOD USAREC                                               |
| <b>Trends in educational development</b>                     | 86              | Military & Government Collection (EBSCOhost), NCO Journal             |
| <b>Total</b>                                                 | 653             | NCO-Military & Government Collection (EBSCOhost)-NCO-Journal          |

Dedoose and its data visualization engine will do the coding. See the software analysis package at

<https://www.dedoose.com/>

Figure 3.9.4

## Dedoose Dashboard Graphical Interface



(Dedoose Support Resources 2021)

Dedoose is a cloud-based tool for managing, analyzing, and presenting qualitative and Mixed-methods research data. Created by Dr. Eli Lieber, a quantitative psychologist, and Dr. Thomas Weisner, an anthropologist and psychologist, both affiliated with UCLA, the software was designed to meet the need for an accessible platform that combines qualitative and quantitative analysis.

Developed by SocioCultural Research Consultants, LLC in Los Angeles, Dedoose provides researchers with tools for data visualization and integration, with subscription plans and free trials. Its ease of use and collaboration features have made it popular across fields like sociology, anthropology, education, and psychology. (Dedoose Support and Resources 2021).

### 3.10 What is Dedoose

#### Founders:

- **Dr. Eli Lieber:** A quantitative psychologist and mixed methods expert, Dr. Lieber operates a methods' lab at UCLA and advises researchers on best practices in data analysis.
- **Dr. Thomas Weisner:** A distinguished anthropologist and psychologist, Dr. Weisner was also affiliated with UCLA and collaborated with Dr. Lieber to make the software a practical tool for academics and researchers (Dedoose Support and Resources 2021).

#### 3.10.1 How Dedoose Works:

- **Data Import:** The researcher can bring in all sorts of data into Dedoose, whether it's text documents, audio or video files, images, or spreadsheets with quantitative data.
- **Coding:** This is where I can apply codes or labels to specific sections of my data. These codes help me categorize and highlight key emerging themes, concepts, or patterns.
- **Data Visualization:** Dedoose allows me to turn my data into visual representations like charts, graphs, and matrices. This makes it easier to see trends, relationships, and patterns.
- **Reporting:** Once the analysis is done, Dedoose lets the researcher create reports and export the data in various formats, so the researcher can share the findings or conduct further studies.

### **3.10.2 Coding**

The first step in content analysis is to develop a coding book that guides the categorization and interpretation of the data. For this research, the coding book includes categories such as "Distance Learning Technology," "Recruitment Strategies," "Retention Efforts," "Poverty Regions," and "Impact on Soldier Retention." Each category will be defined with specific subcategories and coding rules to ensure consistency and reliability in the data analysis. The collected data will be analyzed using qualitative and mixed methods.

### **3.10.3 Coding Scheme Development**

Mixed-methods, qualitative, and quantitative research coding for this research is a critical process in analyzing textual data, emphasizing the presented variables that have been identified as independent. It systematically categorizes and labels data segments to identify themes, patterns, and relationships. Coding enables researchers to organize and interpret data meaningfully, facilitating the generation of insights and conclusions. All individual values will be mentioned and categorized. Patterns will be identified in each categorization (Saldana 2015).

Also, developing a coding scheme is a fundamental step in Mixed-methods research coding. It involves defining a set of codes that represent different aspects of the data. These codes can be derived deductively from existing theories or inductively from the data. A coding scheme typically includes a codebook that outlines the definitions, examples, and rules for applying each code. One challenge encountered is that this research would not involve human participants (Miles 2014).

The content analysis will use data from available publications and will require a coding process. A lot of peer-reviewed research, including information from the military, shows how distance learning technology has impacted service members' daily lives and their decisions on whether to stay in the military after earning a college degree or leave to pursue civilian careers. Braun & Clarke (2006) state that the coding process can be iterative, with initial codes being refined, merged, or split as the researcher gains a deeper understanding of the data. This iterative process helps ensure that the coding scheme accurately reflects the complexity and nuances of the data.

#### **3.10.4 Inter-coder reliability**

This research will utilize a Mixed-methods approach, using textual sources, including journals, articles, books, and scholarly data, to investigate the adoption and effects of distance learning technologies. Data from USAREC, TRADOC, Army Educational Centers, recruitment, retention reports, and training documentation will be gathered.

Lombard et al. (2002) highlighted the importance of employing inter-coder reliability to guarantee the coding process's accuracy; this involves analyzing multiple data sets independently according to a predefined coding scheme, with a portion of the data being sampled.

Artstein (2024) wrote in the Inter-coder Agreement for Computational Linguistics article that the level of inter-coder agreement is quantified using statistical percentages to uncover any inconsistencies in coding, thus enhancing the coding scheme's precision to accurately reflect the data's critical elements. Implementing inter-coder reliability is anticipated to produce significant insights into the effects of distance learning technology on recruitment and retention within the U.S. Army. Final findings suggest that such technologies offer improved access to training and

educational content, potentially increasing the appeal of serving in the Army and aiding in retaining current members.

Gaskell & Bauer (2000) wrote that inter-coder reliability is vital in confirming the study's validity and reliability. Achieving a high level of inter-coder agreement is crucial for validating the conclusions regarding the influence of distance learning technologies on the Army's recruitment and retention efforts. As the Army further integrates technology into its processes, employing stringent research methods will be vital in assessing the success of these technological advancements.

### **3.10.5 Inter-coder Reliability Plan**

- **Research Topic:** The Impact of Distance Learning Technology on U.S. Army Recruitment and Retention.
- **Proposed Observers / Raters:** Local U.S. Army Recruiters.

#### **Overview:**

This ongoing research about how distance learning technology influences the U.S. Army's recruitment and retention strategies must ensure the reliability and consistency of the data gathered. To achieve this, I plan to conduct an inter-rater reliability analysis with local U.S. Army recruiters. The insights that may be obtained will be invaluable, given the direct involvement in recruitment and the understanding of the impact that distance learning programs may have on potential recruits and current enlistees.



### **Expected Outcomes:**

This analysis aims to ensure that the data that will be collected is reliable and that recruiters consistently understand and perceive the impact of distance learning technology. High inter-rater reliability would indicate that the observations and judgments about the effects of distance learning are aligned, strengthening the credibility of my research findings.

The consistent ratings will also help validate the U.S. Army's current promotion strategies regarding distance learning, cost-effectiveness, and long-term benefits to military enlistees.

### **3.11 Pilot Study Procedures**

**Import Documents:** I imported 123 text documents into Dedoose, which became my primary data source. To obtain better results, the documents needed to be in Word. Doc format. I converted all my PDF documents into Word.doc format to upload the data to the file repository.

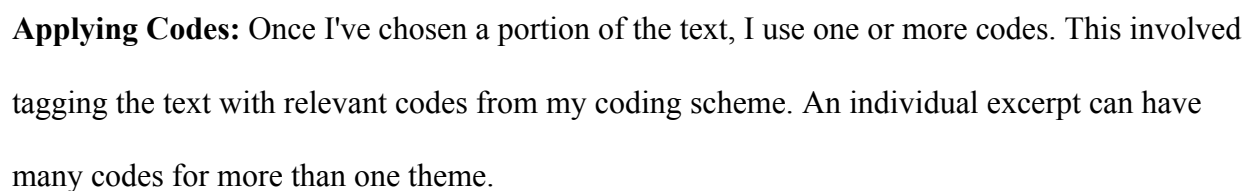
**Coding Scheme:** I then created a coding scheme representing my research.

#### **3.11.1 Data Analysis**

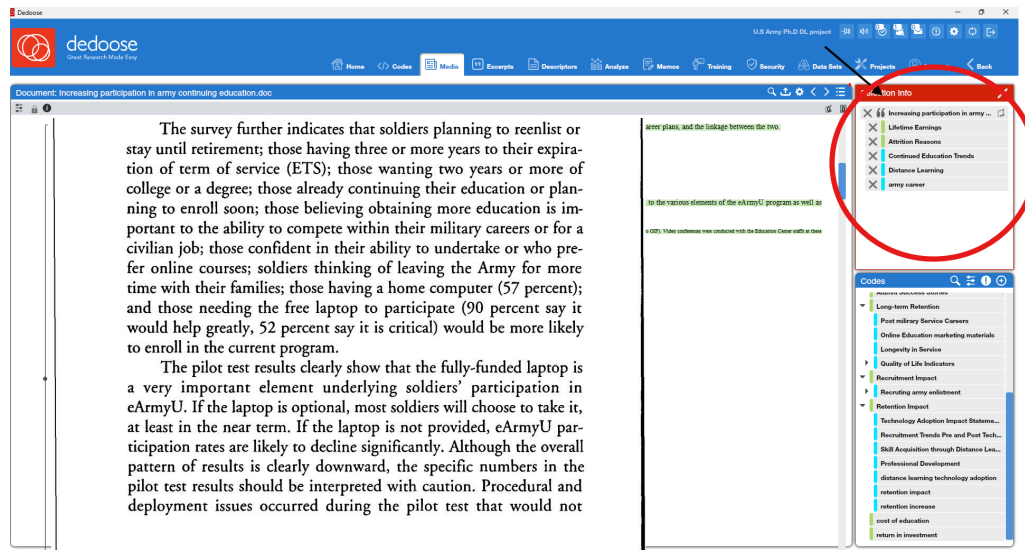
**Selecting Text Segments:** I then needed to examine my documents and choose text segments relevant to my research questions. This activity is also referred to as excerpting.

The Dedoose dashboard graphical interface below provides a detailed view of various sections where data, codes, and excerpts are organized and displayed. The dashboard acts as a central hub, combining all these elements in a single view, allowing me to navigate between different sections efficiently. Each section corresponds to a dedicated workspace that displays specific data representations, such as codes, excerpts, or documents. All additional features and tools can be

## Dedoose Data Segments Representation



**Figure 3.11.3 Data display, excerpts, and codebook**



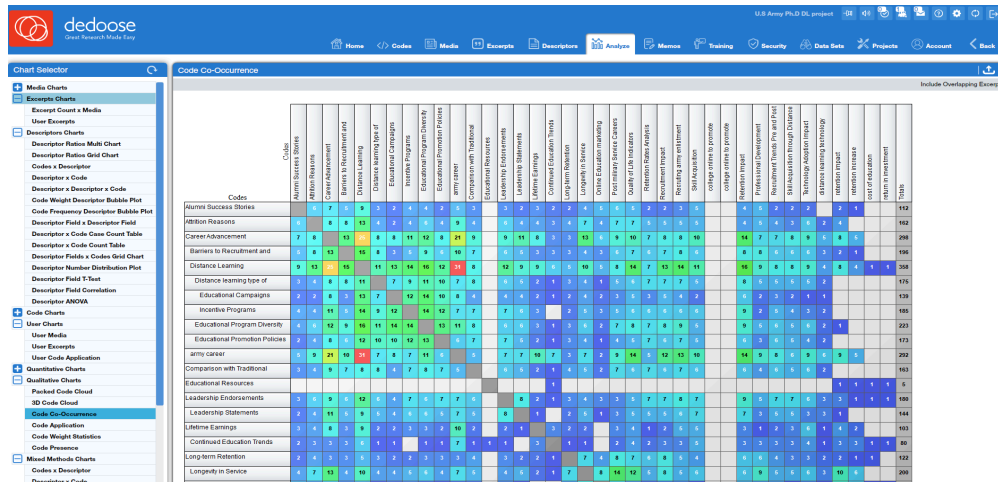
**Building the Dataset and Graphical Representation:** Dedoose automatically created a dataset as I coded the excerpts. This dataset includes the excerpts, the codes applied, the source document's metadata, and the document's location. The middle section highlights the excerpts in green, and the arrow shows where the codebook is on the upper right side of the graphic.

### 3.11.4 Analyzing Data Using Dedoose

**Analyze Data:** Dedoose offered me different ways to explore my coded data. The data was analyzed, and a data report was generated. The report was uploaded again, and the research questions were added so that the system could use them as conditions to generate the visualizations after the compilation process. Here is a representation of the report.

### Figured 3.11.5 Code Co-Occurrence Chart

- Illustrated the frequency of specific themes co-occurring.



**Figure 3.11.6. Word Clouds:** These could present the most frequently used codes.



This visual represents the text data, where words are displayed in various sizes and orientations based on their frequency or importance within the dataset. Common words appear more prominent, while less frequent words appear smaller.

## Interpretation and Sharing

**Data Interpretation:** Based on these visualizations, I infer patterns, relationships, and trends from the coded data. I look for recurring themes, important co-occurrences, and variations in what I have learned from different segments of my data.

**Summarizing the Results:** Summarize the findings by weaving together what I have learned. A summary should include:

- **Supporting Excerpts:** Include examples to illustrate these themes and add context.
- **Insights and Implications:** Interpret data, including what it means for my research questions or objectives.
- **Visual Evidence:** Relevant visualizations that support my narrative and visually represent my data.

**3.11.7 Exporting Results:** From the final result, I can export the dataset, visualizations, and summaries for further analysis or presentation. Dedoose provided several export formats for smoothly sharing my findings with others or integrating with other software. The data report was downloaded in CSV format and uploaded again for interpretation by adding the research questions as references. Here is a sample visualization of the final data set report.

Figure 3.11.8

## Imported Data Results

The imported data results represent the most common themes and correlated terms.

|     | A                                                                                  | B  | C                                                                |
|-----|------------------------------------------------------------------------------------|----|------------------------------------------------------------------|
| 106 | FROM COMBAT TO CLASSROOM.doc                                                       | 0  | CollegeGuerrier(U...<br>Benefits and<br>Costs of<br>Distance.doc |
| 107 | FROM COMBAT TO CLASSROOM.doc                                                       | 23 | BERG-Effects-Com<br>bat-Stress.doc                               |
| 108 | FROM COMBAT TO CLASSROOM.doc                                                       | 6  | boston_ice142.do<br>cx                                           |
| 109 | Future warfare future skills future professional military education.doc            | 0  | boston_ice142.do<br>cx                                           |
| 110 | Future warfare future skills MILITARY EDUCATION.doc                                | 0  | Bridging-the-NCO<br>-Officer-Divide.do<br>c                      |
| 111 | Gates-Group-allegiance-JPR-penultimate.docx                                        | 0  | Bridging-the-NCO<br>-Officer-Divide.do<br>c                      |
| 112 | Gates-Group-allegiance-JPR-penultimate.docx                                        | 0  | BUILDING THE<br>FIGHTING<br>STRENGTH OFFI...                     |
| 113 | Home The Army Distributed Learning Program.doc                                     | 0  | BUILDING THE<br>FIGHTING<br>STRENGTH OFFI...                     |
| 114 | Home The Army Distributed Learning Program.doc                                     | 0  | BUILDING THE<br>FIGHTING<br>STRENGTH OFFI...                     |
| 115 | Impact of Military Deployment and Distance Learning on Soldier-Students.doc        | 0  | Can I Get My<br>Degree While<br>Serving Active D...              |
| 116 | Increasing participation in army continuing education.doc                          | 0  | Can I Get My<br>Degree While<br>Serving Active D...              |
| 117 | Increasing participation in army continuing education.doc                          | 13 | Can I Get My<br>Degree While<br>Serving Active D...              |
| 118 | Is Online Learning for Everybody.doc                                               | 0  | Challenges to<br>Military Spouse<br>employment an...             |
| 119 | Is Online Learning for Everybody.doc                                               | 0  | Challenges to<br>Military Spouse<br>employment an...             |
| 120 | JOLT - Journal of Online Learning and Teaching.doc                                 | 17 | Challenges to<br>Military Spouse<br>employment an...             |
| 121 | life as a private.doc                                                              | 0  | Class<br>Roster_20240513<br>_124134.doc                          |
| 122 | Life Factors Affecting U.S. Army Junior-Enlisted Soldiers in Reac MUST SEE.doc     | 0  | College students<br>the GI Bill, and<br>the nonliferation        |
| 123 | Making Military Education More Effective and Affordable _ RAND.doc                 | 0  |                                                                  |
| 124 | MARRIED TO THE MILITARY MILITARY WIVES COMPARISON TO CIVILIAN WIVES.doc            | 0  |                                                                  |
| 125 | MARRIED TO THE MILITARY MILITARY WIVES COMPARISON TO CIVILIAN WIVES.doc            | 0  |                                                                  |
| 126 | Membership matters_ Coerced recruits and rebel allegiance - Scott Gates, 2017.docx | 0  |                                                                  |
| 127 | Membership matters_ Coerced recruits and rebel allegiance - Scott Gates, 2017.docx | 0  |                                                                  |
| 128 | Military and College_ 7 Reasons Active-Duty Members Need a Degree.doc              | 0  |                                                                  |
| 129 | Military and College_ 7 Reasons Active-Duty Members Need a Degree.doc              | 8  |                                                                  |
| 130 | Military and College_ 7 Reasons Active-Duty Members Need a Degree.doc              | 8  |                                                                  |
| 131 | Military connected undergraduate students.doc                                      | 0  |                                                                  |
| 132 | Military connected undergraduate students.doc                                      | 0  |                                                                  |
| 133 | NationalProgramIntroducesCollegetoServiceMem.doc                                   | 12 |                                                                  |
| 134 | NationalProgramIntroducesCollegetoServiceMem.doc                                   | 0  |                                                                  |
| 135 | NCO-Education college.doc                                                          | 0  |                                                                  |
| 136 | NCO-Education college.doc                                                          | 15 |                                                                  |
| 137 | NCO-Education.doc                                                                  | 0  |                                                                  |

(DedooseChartExport Dataset Excel)

## 3.12 Pilot Study

### Pilot Exploratory Study Creation Steps

#### 1. Define My Research Questions

- I started by clearly defining the core research questions driving my pilot study; by outlining the questions, I ensured that my data collection and analysis remained focused on the core themes.

## **2. Set Up My Dedoose Account**

- Since I planned to use Dedoose for my analysis, I created an account on the platform. This gave me access to its tools, enabling me to upload and analyze qualitative and Mixed-methods text-based data. Once logged in, I explored Dedoose's interface to understand its key features, especially how it enables users to create codes, text excerpts, memos, and data visualizations.

## **3. Project creation in Dedoose**

- I created a new project in Dedoose specifically for this study, naming it "Impact of Distance Learning on U.S. Army Recruitment and Retention." I added a project description, highlighting my goal to assess how technology has influenced recruitment efforts and soldier retention within the Army.

## **4. Upload Mixed-methods Data**

- With my project set up, I uploaded the mixed-methods data I collected. This included interview transcripts from Army recruiters, retention specialists, Military historians, distance learning experts, military veterans, and soldiers who have engaged with distance learning technologies. I ensured that my data was in a format that Dedoose supports, such as Word or PDF files. However, I learned that for Dedoose to capture data more effectively, the document format needs to be in a Microsoft Word document. Then, data segments on each document were selected to create excerpts to be used for analysis by applying a set of codes to each.

## **5. Creation of Codes and Codebook**

- Based on my research questions and initial data readings, I began developing a set of codes. For example, I used codes like “Recruitment Challenges,” “Retention Benefits,” “Distance Learning Efficiency,” and “Technology Gaps.” I created a codebook in Dedoose where I defined each code, making it easier to apply them consistently across my data.

## **6. Pilot Coding**

- I conducted a pilot coding session by coding a small subset of the data. For instance, I coded a few Army Recruiting and Army distance learning articles to see how my initial set of codes worked in practice. This helped me test whether my code was well-defined and applicable to the themes emerging from the data on recruitment and retention.

## **7. Apply Codes to the Full Dataset**

- Once I finalized my code, I applied it to the rest of the data. I carefully tagged relevant portions of interviews and focus group discussions with these codes, ensuring that my entire dataset was systematically analyzed for critical themes related to distance learning, recruitment, and retention.

## **8. Analyze the Data**

- With the coding complete, I used Dedoose’s built-in tools to analyze the data created by selecting data segments from each article. Then I created visualizations, such as code frequency charts, to see how often different themes appeared. I also explored relationships between codes, like whether those who reported positive experiences with distance



learning were more likely to stay in the Army, helping me understand the broader patterns in the data.

## **9. Interpret Results**

- I began interpreting the results, asking myself, "Do the findings suggest that distance learning improves recruitment efforts?" Are there noticeable patterns in how distance learning affects retention? I used the data to draw insights and identify key patterns that answer my research questions.

## **10. Generate Reports and Export Data**

- After completing the analysis, I generated reports using Dedoose's reporting tools. These reports summarized my key findings, showing the frequency of specific codes and insights from my excerpts. I also exported the coded data and visualizations to Microsoft Excel to get a better understanding.

## **11. Refine the Process for Full-Scale Analysis**

- After completing this pilot study, I reviewed the process to determine what worked well and could be improved. I considered whether my code adequately addressed the key themes and the research questions. Any insights gained here would help me refine my approach for a full-scale qualitative analysis of the broader impact of distance learning technology on Army recruitment and retention. In conclusion, by following these steps, I conducted a structured pilot qualitative analysis in Dedoose, gathering valuable insights into how distance learning technology affects the Army's recruitment and retention efforts. This pilot study was crucial for understanding the impact of distance learning technology

on various aspects of military service, including recruitment, retention, and career advancement. By analyzing key metrics such as career progression, lifetime earnings, and retention rates, this study provides valuable insights into how educational technologies can enhance the professional development of enlisted personnel. Additionally, the study examines the cost-benefit ratio of these programs, ensuring that resources are allocated efficiently. The findings from this pilot study will help inform policy decisions and strategies to optimize the use of distance learning in the military, ultimately contributing to a more educated, skilled, and retained force. The discussion will include:

1. **Impact of distance learning technology on recruitment and service retention rates.**
2. **Enhancement of career opportunities for enlisted personnel through distance learning.**
3. **Promotion strategies of distance learning technology by the military.**
4. **Long-term benefits for military enlistees who completed college programs.**
5. **Cost-benefit analysis of distance learning technology-based programs.**

Each research question is addressed by analyzing the relevant data and creating visualizations where applicable.

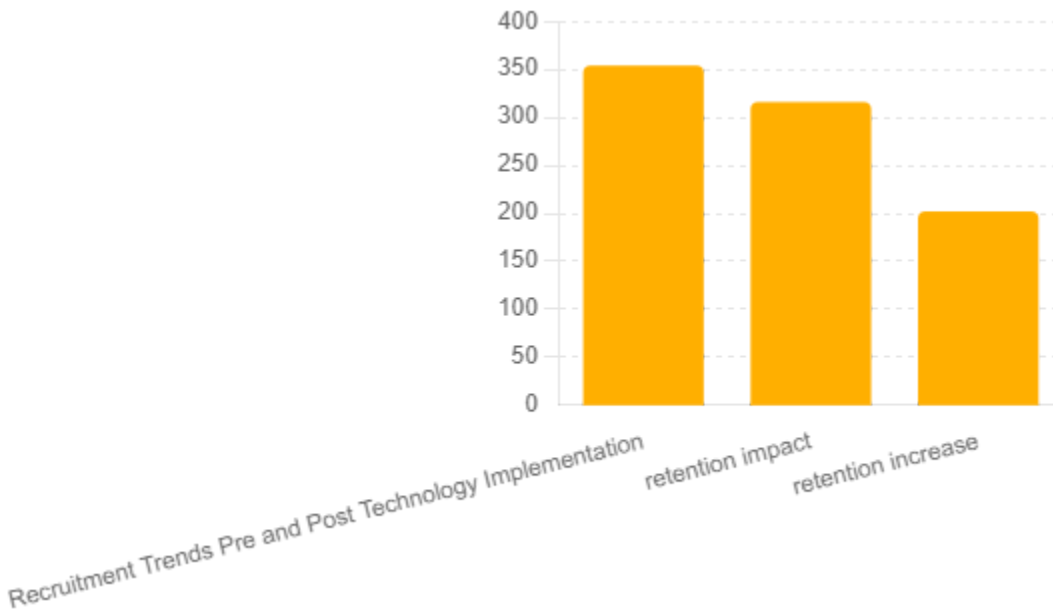
**Research Question 1:** What evidence is there that the introduction of distance learning technology in the United States military impacts the recruitment and service retention rate of enlisted soldiers today?

Education has always been a cornerstone for successful careers, and the military is no exception. From 1997 to 2021, the U.S. military embraced distance learning technology as a powerful tool to help new service members acquire new skills, enhance their training, and pursue higher education

to retain a well-trained force. This shift has opened new avenues for soldiers, enabling them to achieve their educational goals without stepping away from their duties. This Pilot exploratory study explores how this technology influences recruitment and retention rates in the military and examines why educational access affects soldiers' career choices. The military has long recognized that education is vital for developing a strong and adaptable force. For decades, programs like the GI Bill and tuition assistance have incentivized enlistment by offering clear educational benefits. With the growing availability of online learning tools, soldiers can continue their studies while serving, making military service more appealing and helping them build valuable skills applicable within and beyond the armed forces. **Relevant Columns:**

- **Recruitment Trends Pre and Post-Technology Implementation**
- **Retention Impact**
- **Retention Increase**

**Figure 3.12.1. First Research Question: Visual Data Visualization**



**Preliminary Findings for Research Question 1:**

The bar chart above illustrates the impact of distance learning technology on recruitment and retention metrics. The metrics include:

- **Recruitment Trends Pre and Post-Technology Implementation:** This shows changes in recruitment trends before and after the introduction of technology.
- **Retention Impact:** Measures the general impact on retention.
- **Retention Increase:** Specifically, it looks at the increase in retention rates.

**Implications:**

- **Positive Trends:** The data indicated that implementing distance learning technology has positively impacted recruitment and retention.
- **Retention Focus:** The increase in retention rates suggests that soldiers are more likely to stay in service when they have access to distance learning opportunities.

**Recommendations:**

- **Expand Distance Learning Programs:** Given the positive impact, it would be beneficial to expand these programs further.
- **Further Research:** Additional studies could help understand which specific distance learning elements are most effective.

Second research question:

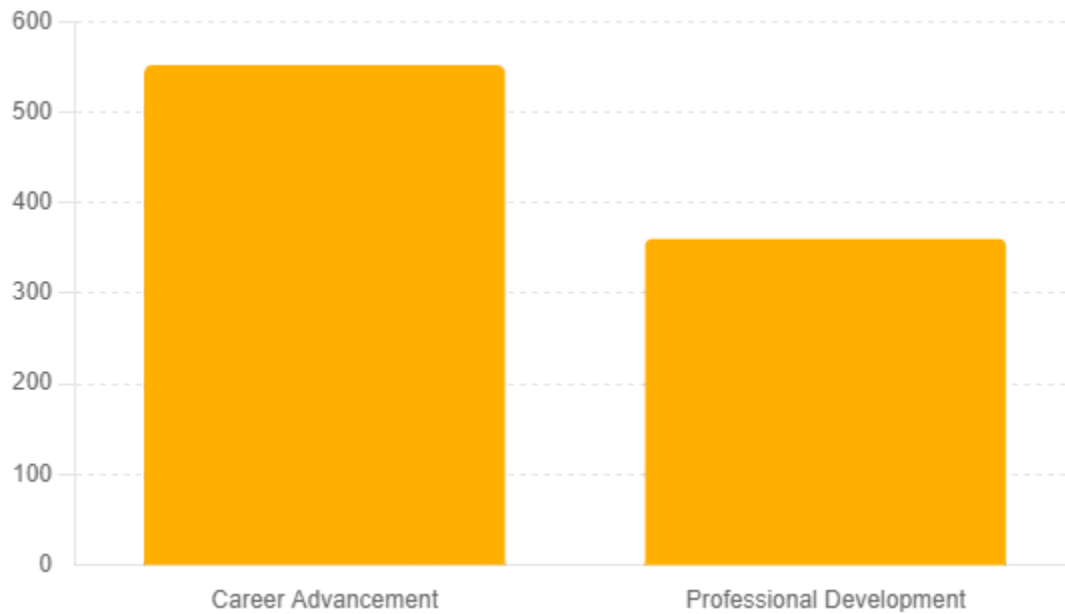
**Research Question 2:** What evidence is there that distance learning technology enhances career opportunities for enlisted personnel in the United States Army?

The columns related to career advancement and professional development were examined.

**Relevant Columns:**

- **Career Advancement**
- **Professional Development**

**Figure 3.12.2. Second Research Question: Visual Data Visualization**



**Preliminary Findings for Research Question 2:**

The bar chart above illustrates the enhancement of career opportunities for enlisted personnel through distance learning, focusing on:

- **Career Advancement:** Indicates the level of career progression attributable to distance learning.
- **Professional Development:** This shows the engagement in professional development activities facilitated by distance learning.

**Implications:**

- **Career Growth:** The data indicated significant career advancement and professional development opportunities due to distance learning technology.
- **Skill Development:** Enlisted personnel will likely acquire new skills that enhance their career prospects.

**Recommendations:**

- **Enhance Professional Development Programs:** Continue and expand professional development programs within distance learning to support career growth.
- **Track Career Progression:** Implement systems to track the career progression of personnel participating in these programs to refine and improve the offerings.

Third research question:

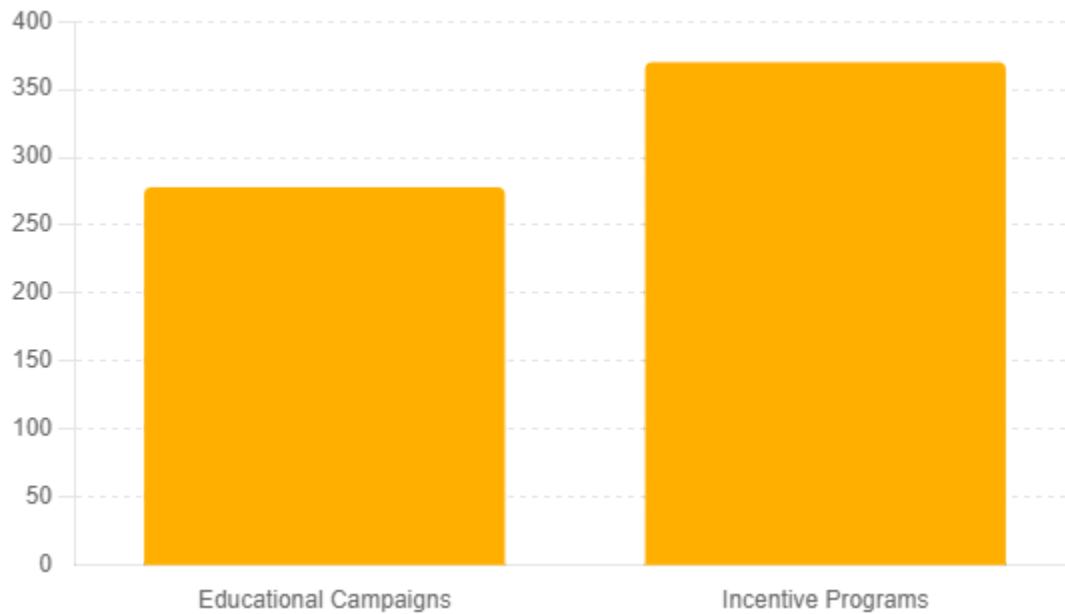
**Research Question 3:** Does the military promote distance learning technology to its enlisted soldiers to generate a more educated force, and if so, what strategies are used?

Columns related to promotional strategies, including educational campaigns and incentive programs, were examined.

**Relevant Columns:**

- **Educational Campaigns**
- **Incentive Programs**

**Figure 3.12.3. Third Research Question: Visual Data Visualization**



**Preliminary Findings for Research Question 3:**

The bar chart above illustrates the promotion strategies of distance learning technology by the military, focusing on the following:

- **Educational Campaigns:** Initiatives aimed at informing and educating soldiers about distance learning opportunities.
- **Incentive Programs:** Programs designed to encourage participation in distance learning through various incentives.



### **Implications:**

- **Awareness and Motivation:** The military uses educational campaigns and incentive programs to promote distance learning, indicating a dual strategy to inform and motivate soldiers.
- **Balanced Approach:** A balanced approach of providing information and tangible incentives is in place.

### **Recommendations:**

- **Increase Campaigns:** Expand educational campaigns to reach a wider audience and provide more detailed information about the benefits and opportunities of distance learning.
- **Enhance Incentives:** Continuously improve and diversify incentive programs to maintain and increase engagement.

Fourth research question:

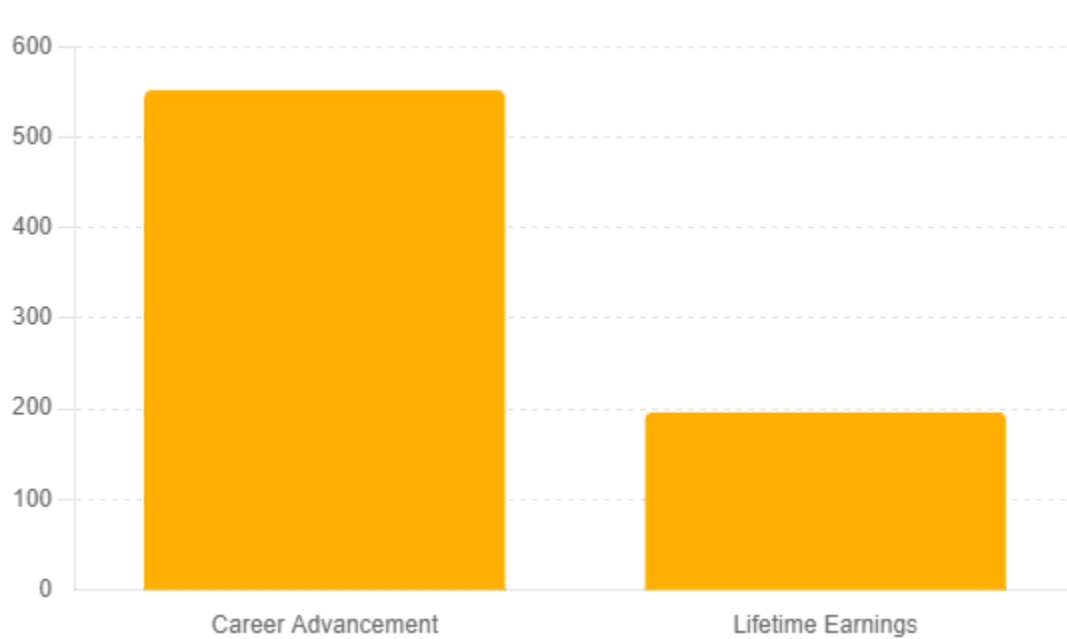
**Research Question 4:** What evidence is there of long-term benefits for military enlistees who completed college programs?

Columns related to long-term benefits, such as career advancement and lifetime earnings, were examined.

### **Relevant Columns:**

- **Career Advancement**
- **Lifetime Earnings**

**Figure 3.12.4. Fourth Research Question: Visual Data Visualization**



**Preliminary Findings for Research Question 4:**

The bar chart above illustrates the long-term benefits for military enlistees who completed college programs, focusing on the following:

- **Career Advancement:** Indicates long-term career progression from completing college programs.
- **Lifetime Earnings:** This shows increased lifetime earnings due to higher education.

**Implications:**

- **Significant Career Progression:** Completing college programs gradually enhances career advancement opportunities.
- **Increased Earnings:** Higher education increases lifetime earnings, highlighting the financial benefits of pursuing college programs.

**Recommendations:**

- **Promote Higher Education:** Encourage more enlistees to complete college programs by highlighting long-term career and financial benefits.
- **Support:** Offer support and resources to help enlistees manage their service and educational commitments.

Fifth research question:

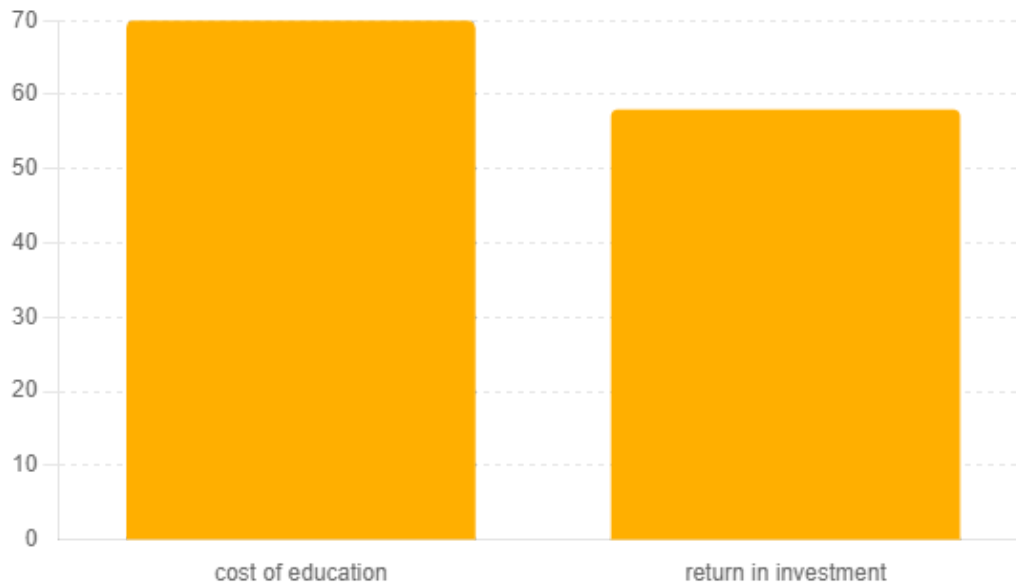
**Research Question 5: Does the cost of distance learning technology-based programs in the U.S. Army outweigh the benefits?**

Columns related to costs and returns were examined, such as the cost of education and return on investment.

**Relevant Columns:**

- **Cost of education**
- **Return on investment**

**Figure 3.12.5. Fifth Research Question: Visual Data Visualization**



**Preliminary Findings for Research Question 5:**

The bar chart above illustrates the cost-benefit analysis of distance learning technology-based programs, focusing on:

- **Cost of Education:** This represents the financial investment required for distance learning programs.
- **Return on Investment:** Measures the benefits received regarding career advancement, earnings, and other returns relative to the cost.

**Implications:**

- **High Return on Investment:** The return on investment outweighs the cost of education, indicating that distance learning programs are financially beneficial in the long term.

- **Justifiable Costs:** These programs' significant returns justify the costs associated with these programs.

#### **Recommendations:**

- **Sustain Investment:** Continue investing in distance learning programs, as they provide substantial returns.
- **Optimize Costs:** Look for ways to optimize the costs of these programs without compromising their quality and effectiveness.

### **3.12.6 Preliminary Implications and Recommendations of the Pilot Study**

#### **Implications:**

- **Positive Impact on Recruitment and Retention:** Distance learning technology positively impacts recruitment and retention rates.
- **Career Advancement and Earnings:** Significant enhancement in career opportunities and lifetime earnings for enlistees.
- **Effective Promotion Strategies:** The military's promotional strategies for distance learning are effective.
- **Long-term Benefits:** Substantial long-term benefits for enlistees who complete college programs.
- **Cost-Effective:** The benefits of distance learning programs outweigh the costs.

### 3.12.7 Preliminary Recommendations:

1. **Expand and Enhance Programs:** Further expand distance learning programs and continuously improve them based on feedback and outcomes.
2. **Increase Awareness:** Enhance educational campaigns and incentives to increase awareness and participation.
3. **Support Enlistees:** Provide robust support systems to help enlistees balance their service and educational commitments.
4. **Monitor and Optimize Costs:** Continuously track costs and look for opportunities to optimize them, maximizing returns.

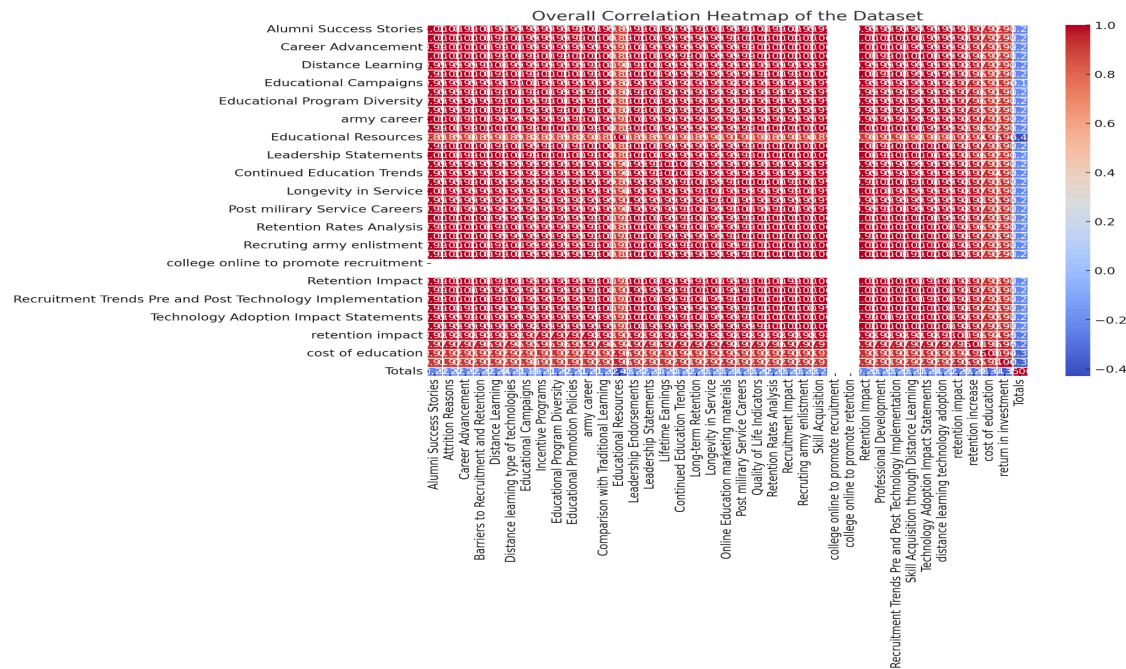
### 3.12.8 Overall Visualization of the Preliminary Dataset

The heatmap below visually represents the correlations between different variables in the dataset.

Here are some key points:

- **Color Coding:** The colors range from blue (negative correlation) to red (positive correlation). Darker shades indicate stronger correlations.
- **Annotations:** The correlation values are annotated on the heatmap for clarity.

**Figure 3.12.9. Overall Mixed-methods Correlation Heatmap of the Dataset**



### 3.12.10 Implications of the Pilot Study Exploratory Research:

This study can shape policy improvements by integrating flexible learning options, enhancing access to education, and supporting soldiers' academic progress.

**3.12.11 Educational Implications:** The study could highlight innovative distance learning models that civilian educational institutions could adopt, potentially influencing broader educational practices and policies.

### 3.12.12 Accessibility and Inclusivity

Findings might show how distance learning can make military training more accessible to diverse recruits, potentially informing strategies in civilian contexts to increase educational accessibility (Allen & Seaman, 2017).

### **3.12.13 Recruitment Strategies: Military Recruitment Implications**

Tannenbaum & Salas (1991) said that if distance learning is a significant motivator for joining the military, it could lead to new recruitment strategies that highlight educational opportunities, potentially attracting a broader or different set of recruits.

### **3.12.14 Training Efficiency and Effectiveness**

The research might reveal that distance learning can enhance the efficiency and effectiveness of military training, leading to potential reforms in how training is conducted. Demonstrating successful educational outcomes through distance learning could improve retention rates among enlisted personnel, as they might be more likely to stay in the military to continue using these educational benefits.

### **3.12.15 Societal Implications: Perceptions of Military Service**

Highlighting educational benefits, including distance learning, could shift public perceptions of military service, seeing it as a career path offering personal and professional development opportunities (Eighmey, J., 2006). However, the social need for workforce development in low-income communities may influence the concept that military service as an employment opportunity could be more appealing than attending college (High, M., 2013).

The author also stated that the research could illustrate the military's role in contributing to the development of the civilian workforce by emphasizing the skills and qualifications obtained through military distance learning.



### **3.12.16 Socio-economic Mobility**

For some, the educational benefits offered by the military, including distance learning, can be a pathway to socio-economic mobility, potentially changing demographic enlistment patterns.

### **3.12.17 Policy Implications: Educational Funding and Support**

The findings could influence policies related to funding and support for academic programs within the military, including advocating for more resources toward distance learning infrastructure collaboration between military and educational institutions (Eddy, 2010). There might be increased incentives for partnerships between the military and higher education institutions to enhance the quality and recognition of military distance learning programs.

### **3.12.18 Ethical and Social Justice Implications: Equity in Recruitment:**

The research might need to address ethical considerations around targeting vulnerable populations with the promise of educational benefits, ensuring that recruitment practices are suitable and credible.

**3.12.19 The implications for access:** Whether these educational benefits reinforce or mitigate existing inequalities could be a significant discussion area.

Conducting research in this area requires carefully examining these implications. The ethical, practical, and analytical impacts of leveraging educational benefits as a recruitment tool must be considered. Engaging with stakeholders, including military personnel, educators, policymakers, and recruits, is crucial to fully understanding and addressing these complex dynamics.

### **3.13 Steps in the Dissertation Process**

Writing this Ph.D. dissertation proposal on how the U.S. Army utilizes distance learning technology to attract recruits and attempts to increase their retention rates involves several comprehensive steps. Here is the structured approach to guide me through this research process:

#### **Refine the Research Questions**

- This process requires identifying and clearly defining the specific aspects of distance learning technology and how the U.S. Army utilizes it to its benefit as an organization that requires many recruits every year to sustain itself.

#### **Literature and Sources Collection**

- This process requires conducting a thorough search and finding and reviewing existing literature on distance learning, military recruitment strategies, and retention practices.

#### **Research Design and Methodology**

- The mixed-methods content analysis method was chosen for this study. This will require the following steps.
  1. Determine the data collection methods and sources, including Journals, Articles, publications, books, and case studies from 3 sources. NCO Journals, DOD publications, and independent books.
  2. Identify the content analysis software application that may meet the functionality requirements for the code book creation and data visualizations. The cloud-based Dedoose platform was selected for this purpose, and an account and monthly subscription were created.

**Data Analysis**

1. Upload the textual data on Dedoose
2. Attach the code books to each excerpt.
3. Select the visualizations after applying the code books to the excerpts.
4. Analyze the collected data using textual content by creating excerpts in each dataset.
5. Add the descriptors to data segments to refine the Mixed-methods results.

**Findings and Discussion**

1. Compare and contrast the findings by triangulating the data results from each dataset.
2. Present the research findings and explain how the data answers the research question.
3. Discuss the implications of the findings for military recruitment and retention strategies.

**Conclusion and Recommendations**

1. Summarize the key findings of the research.
2. Recommend how the U.S. Army can improve or modify distance learning technologies to enhance recruitment and retention outcomes.
3. Suggest areas for future research.

## **Chapter 4. Main Study**

### **4.1 Exploratory Research Findings**

In this chapter, I explored the significance of distance learning technology on military recruitment and retention in the U.S. Army. Using a mixed-methods approach, I conducted a large-scale exploratory study to answer five key research questions, examining how digital education tools influence enlistment decisions and long-term service commitments.

I analyzed these trends using extensive textual data and a visualization technique. A horizontal chart was selected for representing the data results. This study attempted to understand how the U.S. Army Recruiting and Retention Command utilizes educational technologies to attract and retain personnel while supporting their career development. Additionally, I assessed the implementation and usability of distance learning technology, highlighting its benefits and the challenges that still need to be addressed.

This research, spanning nearly 25 years from 1997 to 2021, demonstrates in detail how the use of distance learning technology in the military has evolved. Building on earlier studies enriches the current understanding of the topic and paves the way for further discoveries by the scientific community. Early in the proposal stage, a small pilot study was conducted to gather initial insights and help shape the primary investigation. A preliminary pilot study was developed during the research proposal phase to gain an initial understanding of potential findings and to confirm that the chosen methodology was suitable for effectively analyzing the data.

#### 4.1.1 Pilot Study Overview

The pilot study explored how distance learning technology influences recruitment, retention, and career development among U.S. Army enlisted personnel. To begin, the researcher outlined 5 key questions to guide the study, then used Dedoose, a qualitative analysis platform, to upload and code mixed-methods data, including textual data from various military publications. A custom project was set up in the system, and themes like “Recruitment Challenges,” “Retention Benefits,” and “Distance Learning Efficiency” were tracked. After a round of pilot coding, the whole dataset was analyzed using charts and visual tools within Dedoose and Microsoft Excel, making it easier to spot patterns and relationships in the data. Reports were generated, and the process was reviewed to prepare for a broader analysis.

Preliminary findings suggest that distance learning programs positively impact recruitment and retention in the Army. The textual data demonstrated that service members with access to education opportunities during their service appeared more likely to stay enlisted and report stronger career progression. The data also showed that promotional efforts, such as incentive programs and educational campaigns, play a role in encouraging participation. Long-term benefits like career advancement and higher lifetime earnings were noted for those who completed college programs, and the overall return on investment for these initiatives appears favorable. Based on these insights, the study recommends expanding distance learning offerings, improving awareness strategies, and ensuring cost-effectiveness.

**Table 4.1.2****Differences Between The Pilot Study Conducted for This Research and The Full Study**

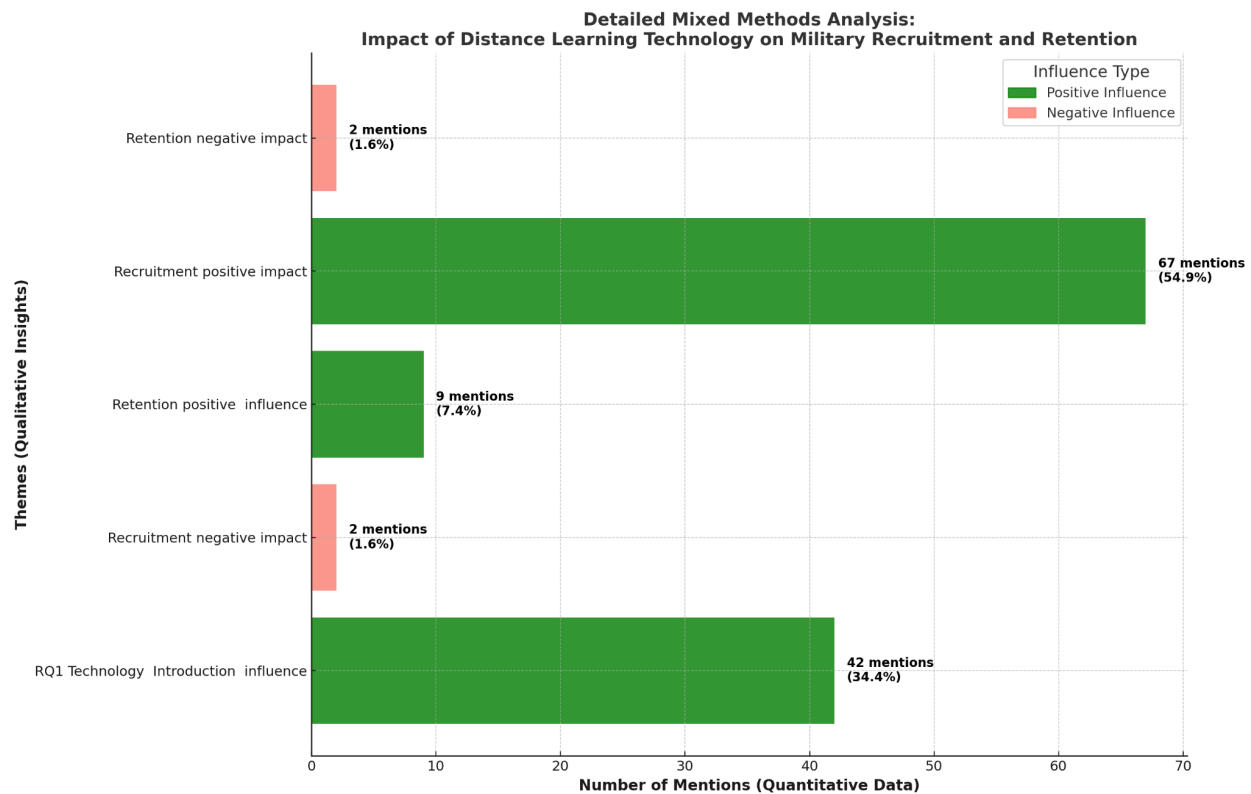
| <b>Aspect</b>          | <b>Pilot Study</b>                                                                                                                                                                                                                                              | <b>Full Study</b>                                                                                                                                                                                          |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purpose</b>         | An exploratory study to identify initial themes and patterns in how distance learning influences recruitment and retention in the U.S. Army using a qualitative approach.                                                                                       | A comprehensive exploratory study sought to confirm findings on a large scale using a Mixed-methods methodology.                                                                                           |
| <b>Scope</b>           | Limited focus on a small textual data sample from 1997 to 2021.                                                                                                                                                                                                 | Unlimited focus on textual data at a large scale, providing data generated from 1997 to 2021.                                                                                                              |
| <b>Data Collection</b> | A small scale of textual data was collected and coded from three sources.                                                                                                                                                                                       | It uses a combination of large-scale textual data from three sources.                                                                                                                                      |
| <b>Data set</b>        | Resources Media Count 55<br>Descriptors 0<br>Code Count 14<br>Codes Applied 42<br>Excerpts Count 56                                                                                                                                                             | Resources media Count 172<br>Descriptors 12<br>Code Count 90<br>Codes Applied 8,369<br>Excerpt Count 4,314                                                                                                 |
| <b>Analysis Method</b> | Through qualitative and quantitative coding, without descriptors, I identified key themes on a small scale. I then carefully examined relevant data segments using textual analysis to uncover meaningful insights and the relevance of the research questions. | I used qualitative and quantitative approaches to identify key themes on a large scale. I then applied specific descriptors to enhance the analysis, allowing for a well-rounded mixed-methods evaluation. |

## **4.2 Research Question 1 Overview**

Distance learning is a cornerstone of modern education in today's digital-first environment. The U.S. military, always at the forefront of adaptive learning, has integrated these technologies into its training and professional development systems. The research question investigates whether the introduction of distance learning technology has had a measurable impact on the recruitment and service retention rate of enlisted soldiers in the U.S. military. The research explores this issue through a mixed-methods qualitative data analysis, providing depth and quantifiable insight.

**4.2.1 Research Question 1.** What evidence is there that the introduction of distance learning technology in the United States military impacts the recruitment and service retention rate of enlisted soldiers today?

This question explores whether technological innovations in education contribute to enhanced recruitment appeal and influence the long-term decision-making of active-duty enlisted service members.

**Figure:4.2.2****The Influence of Distance Learning Technology In Recruitment and Retention****4.2.3 Methodology**

A mixed-methods research approach was executed, combining qualitative and quantitative techniques to understand the issue comprehensively. To make the findings from this study more straightforward to understand and interpret, a horizontal bar chart was created from the data set by importing the raw data from Dedoose in a Microsoft Excel format. This graphic serves as a clear visual summary of how often patterns and themes were mentioned in the textual data segments related to implementing distance learning technology. The visualization chart allows the data to be presented in a more accessible, visual format, showing the number of times each theme was mentioned and the percentages.



In the chart, each bar represents a different coded theme, such as “Recruitment Positive Impact,” “Technology Introduction Impact,” or “Recruitment Negative Impact.” These themes are arranged along the vertical axis, while the horizontal axis displays the number of times each theme appeared in the dataset. The length of each bar directly reflects the frequency of mentions, making it easy to compare which ideas were most commonly discussed and which were mentioned less frequently. This simple design helps clarify complex mixed-methods data and supports the overall interpretation of how distance learning is perceived within the U.S. military context.

#### **4.2.4 Why I chose the Mixed-Methods Methodology for Research Question 1.**

My decision to implement a mixed-methods approach was grounded in the complexity of the research topic. Understanding recruitment and retention decisions within a military context involves measurable factors and deeply personal perceptions and experiences found while selecting textual data segments from the literature.

#### **4.2.5 How the data measurement was done:**

The dataset used in this research included thematic codes created during both the qualitative and quantitative analysis phases. Examples of these codes were "Recruitment positive Impact" and "Recruitment negative impact," highlighting specific aspects related to the research question. Each code was assigned a frequency count to show how often it appeared across the collected textual data. After coding and implementing excerpts, the data set was exported in a Microsoft Excel format, where the data set was carefully cleaned, organized, and structured to facilitate a clear visualization and straightforward interpretation of the results. The dataset was interpreted using a frequency-based scoring system based on the times a specific theme was found during the data analysis phase so that the findings could be interpreted in a percentage format. Each code

represented a distinct idea or sentiment regarding distance learning and its perceived influence on the United States Army recruitment and personnel retention. The number of times a code appeared (the "Number of Mentions" column) indicated its importance or prevalence within the more extensive qualitative data set. The percentages are a benchmark for significance within the quantitative data set.

#### **4.2.6 Summary of Results**

The data shows that distance learning technology has a strong positive effect on military recruitment and retention, backed by both qualitative insights and quantitative results. Among the findings, the biggest standout was the Recruitment Positive Impact theme, which was mentioned 67 times and made up about 54.9% of all the theme implementations on textual data segments. This high number highlights how practical and appealing distance learning technology became from 1997 to 2021 in attracting recruits to the U.S. military, making it a key part of recruitment efforts.

The Technology Introduction Influence theme was close behind, with 42 mentions, about 34.4% of total data acknowledgments. This suggests that simply introducing and integrating distance learning tech significantly boosts recruitment and retention, showing that investing in these technologies pays off strategically. Military personnel generally see these technological advancements positively, enhancing their perceived military service as modern and attractive.

Regarding retention specifically, the Retention Positive Influence theme came up moderately, with 7.4% of data results. While most benefits were seen in recruitment, there's still reasonable evidence that distance learning helps retain soldiers.

These positive effects come from the better career paths, improved skills, and educational opportunities made possible through these distance learning, technology-driven programs.

On the flip side, few publications mentioned any downsides to distance learning technology. Recruitment Negative Impact and Retention Negative Impact received just 2 mentions each, totaling only 3.2% of data results. This small number suggests that negative experiences or criticisms related to implementing distance learning technology in the military are minor, reinforcing its overall positive impact. The data confirms that distance learning technology plays a substantial, predominantly positive role in improving military recruitment and retention. The overwhelmingly positive themes significantly outweigh the minimal negative feedback, highlighting the strategic advantage of continuing and potentially expanding distance learning technology within the U.S. military.

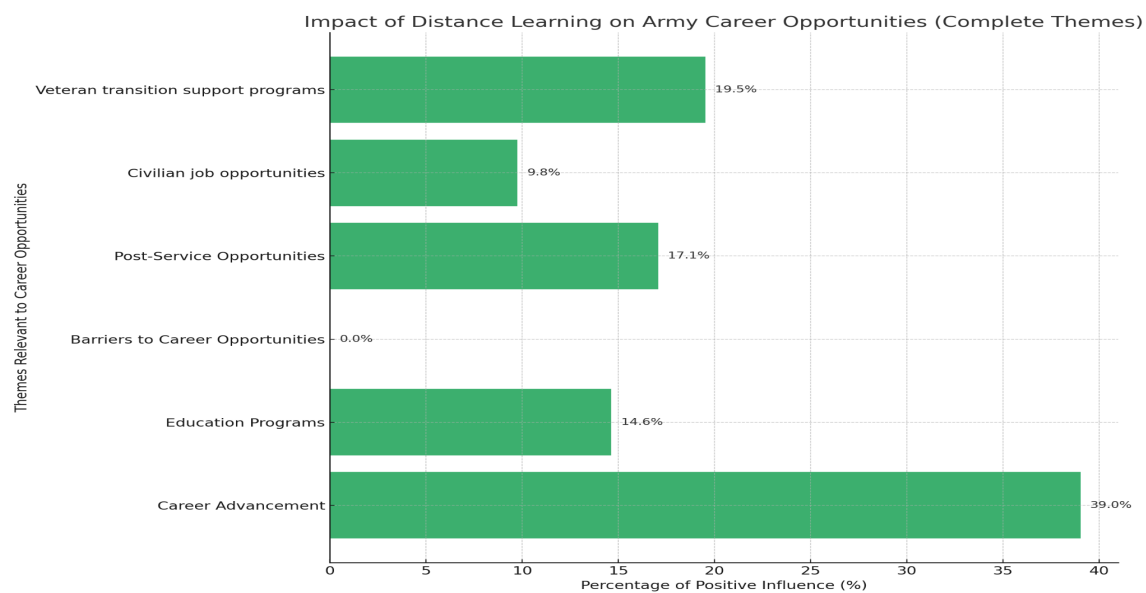
### 4.3 Research Question 2 Overview

- **Research Question 2:** What evidence is there that distance learning technology enhances career opportunities for enlisted personnel in the United States Army?

Research Question 2 investigates the impact of distance learning technology on career opportunities for enlisted personnel in the U.S. Army. Specifically, this question examines evidence related to how online educational programs influence skill enhancement, promotion eligibility, retention rates, and transition into civilian employment. The goal is to understand whether utilizing distance learning supports soldiers' professional advancement during their military service and equips them with valuable qualifications and experiences beneficial in post-military careers.

**Figure 4.3.1**

#### Influential Factors of Distance Learning on Career Opportunities For Enlisted Soldiers



(Dedoose Generated Data-Set RQ2)

### **4.3.2 Methodology**

I used a mixed-methods approach for this research question, combining qualitative and quantitative research methods to gain a better understanding of the topic. This approach gave me a fuller picture of the situation. To make the results more transparent and easier to understand, I created a horizontal bar chart by exporting the dataset from Dedoose into Microsoft Excel format, which visually shows how often the data revealed specific themes related to distance learning technology. Rather than just giving numbers or lengthy descriptions, this chart makes it simple to see what topics came up most frequently. The visualization helps the data stand out clearly, making it easy to spot the main trends and patterns from the analysis.

### **4.3.3 Why I chose the Mixed-Methods Methodology**

I decided to use a mixed-methods approach because it offered a more complete way to explore and find clear patterns in the textual data. For example, career development in the military is not just a matter of statistics or promotion rates; it also involves programs designed by the United States Department of Defense that allow enlisted soldiers to engage in self-educational development. By combining qualitative insights from the textual data, I was able to capture a fuller picture of the situation. This method helped me identify clear data patterns and understand why those patterns are meaningful.

### **4.3.4 How the data was measured**

To measure the data, I used a percentage system that assigned each theme or category a value by percentage. These scores were based on how often the theme appeared in the dataset. For instance, a theme like “Veteran Transition Support Program” received a high score of 19.5%,

indicating that many segments in the textual data frequently mentioned it and considered it necessary. On the other hand, themes such as “Barriers to Career Opportunities” received a score of 0%, indicating little to no evidence in the data to support their relevance or impact. This scoring system helped transform general opinions and recurring ideas into measurable results. These results were then organized visually using a bar chart, making it easier to understand and compare the significance of different themes.

#### **4.3.4 Summary of Results**

This report examined how distance learning technology is improving the career opportunities of enlisted Army soldiers. I used a mixed-methods methodology to determine which areas are making the most significant impact and where things might still fall short. Career Advancement was the theme with the most decisive influence, comprising 39.0% of the total positive data results. That tells me that many soldiers see distance learning as a way to advance in rank or take on new roles after leaving military service. Next was Education Programs, which accounted for 14.6%. These structured programs are designed to help soldiers learn new skills or earn certifications. They are being used and appreciated by many enlisted soldiers. Themes related to life after service, like Post-Service Career Opportunities, came in at 17.1%. These measurements show that distance learning gives soldiers limited but valuable options once they leave the Army, helping them land jobs and figure out what’s next.

I also saw that Veteran Transition Support Programs scored 19.5%, indicating that some soldiers are getting help to transition into civilian careers through technology-driven programs. It’s a smaller puzzle piece, but it’s still essential.

On the contrary, the theme of barriers to career opportunities scored 0.0%. This result suggests that while employment programs exist to help newly separated enlisted veterans adapt to civilian life and find employment, they face significant barriers to getting a job. Even though their military specialty was valuable while serving, it does not always translate well into the civilian job market. The next finding was under the theme of Education Programs at 14.6%. This means that most military veterans qualify for free vocational training and can pursue a college education using their Montgomery GI Bill after military service. However, not every newly separated service member pursues Higher Education after serving. Finally, Post-Service Opportunities came in at 17.1%. The findings suggest that job opportunities, such as law enforcement or jobs requiring high physical fitness and self-discipline, can be relevant to military service. The research question results show how complicated the role of distance learning is in shaping career opportunities for enlisted soldiers in the U.S. Army. The military values these programs and actively encourages soldiers to participate, especially as a way to grow professionally. However, the actual effects on individual careers vary significantly.

Some soldiers benefit from distance learning by gaining new qualifications, which could lead to job-related promotions and career advancement. Overall, the study highlights a significant opportunity for improvement. If the U.S. Army can strengthen how it implements distance learning for enlisted soldiers and link it to real career growth opportunities during and after military service, these programs could become more effective and trusted resources for enlisted soldiers.

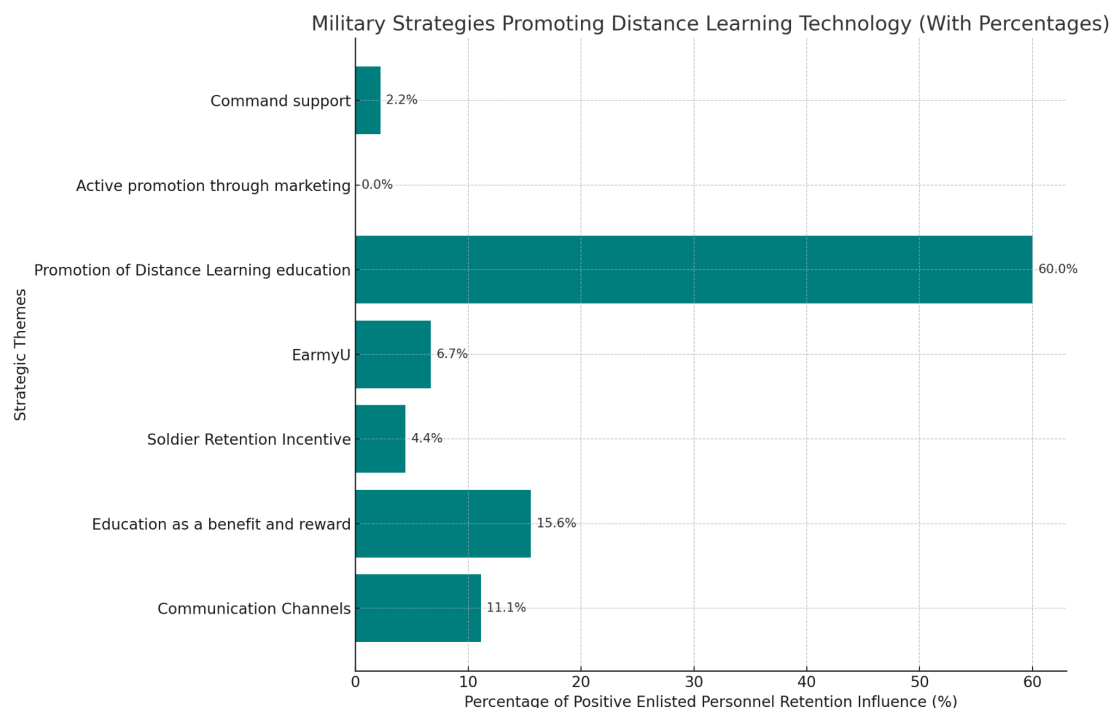
#### 4.4 Research Question 3 Overview

**Research Question 3.** Does the military promote distance learning technology to its enlisted soldiers to generate a more educated force, and if so, what strategies are used?

Research Question 3 investigates whether the U.S. Army actively promotes distance learning technology to enlisted soldiers to foster a better-educated military force. It examines the effectiveness and variety of promotional strategies to encourage soldiers' participation in online education. Additionally, the research analyzes how these strategies contribute to overall military readiness, soldier development, and career advancement. Findings are visually represented through a horizontal bar chart, clearly comparing the frequency and effectiveness of each identified promotional approach.

**Figured. 4.4.1**

#### Military Promotion Strategies for Distance Learning Programs and Technology



(Dedoose Data Set RQ3)



#### **4.4.2 Methodology**

This research question employed a mixed-methods approach, integrating qualitative and quantitative techniques, to examine how the U.S. military leadership promotes distance learning among enlisted soldiers. The mixed-methods analysis used a qualitative approach to identify key themes from the data. At the same time, the quantitative aspect measured the frequency and significance of these themes to determine their influence levels.

#### **4.4.3 Why This Methodology Was Chosen**

The mixed-methods approach was chosen because it provides a comprehensive perspective, combining the depth of qualitative insights with the precision of quantitative data. This approach allowed for a clear and integral understanding of military promotional strategies for distance learning. A horizontal bar chart was used to communicate the results effectively. This visual representation offered clarity by enabling quick comparisons and ensuring readability, highlighting the most frequently discussed strategies found in the literature's textual data segments.

#### **4.4.4 Measurement of The Data**

Initially, I analyzed the data using Dedoose, a qualitative research software, to help categorize the data and identify central themes. After selecting relevant text segments and assigning codes and excerpts based on the research question, I exported the data from Dedoose, formatted as a Microsoft Excel sheet. The process allowed me to organize and count how often each theme appeared, providing clear charts visually representing the findings. This method allowed me to generate a percentage score for each theme, written as a percentage.

#### **4.4.5 Summary of Results**

I analyzed how the U.S. military promotes distance learning technology to enlisted soldiers to boost their education levels and improve retention. I used a mixed-methods approach, focusing primarily on quantitative data, to see how soldiers perceive different strategies for distance education.

The data showed that the military directly promotes distance learning programs, starting with promoting distance learning education, with all the positive influences recorded at 60%. This indicates that the army at higher command levels actively encourages soldiers to take advantage of structured online education programs, reflecting how strategically important this is to them.

Another significant finding was that the military views education as a major benefit or reward, accounting for roughly 15.6% of positive textual findings. Higher Command intentionally positions educational opportunities as incentives or perks to motivate soldiers to pursue personal and professional growth. This helps align individual soldier goals with broader military retention objectives. However, its effectiveness is not immediately apparent, and results may vary during both peacetime and wartime.

Personnel retention incentives also had a low impact, with about a 4.4% positive influence. The low score indicates that the military does not always recognize the importance of education in retaining good soldiers. By not connecting educational achievements to promotions or career opportunities, they actively encourage soldiers to stay in the enlisted ranks longer. This is so enlisted soldiers do not cross into the ranks of commissioned officers, since there is a greater need for enlisted soldiers than for commissioned officers.

Additionally, the EArmyU online platform was notable, making up 6.7%. This suggests the military specifically promotes this program as a key tool for achieving educational and retention goals. It also emphasizes the value of dedicated online platforms catering directly to soldiers.

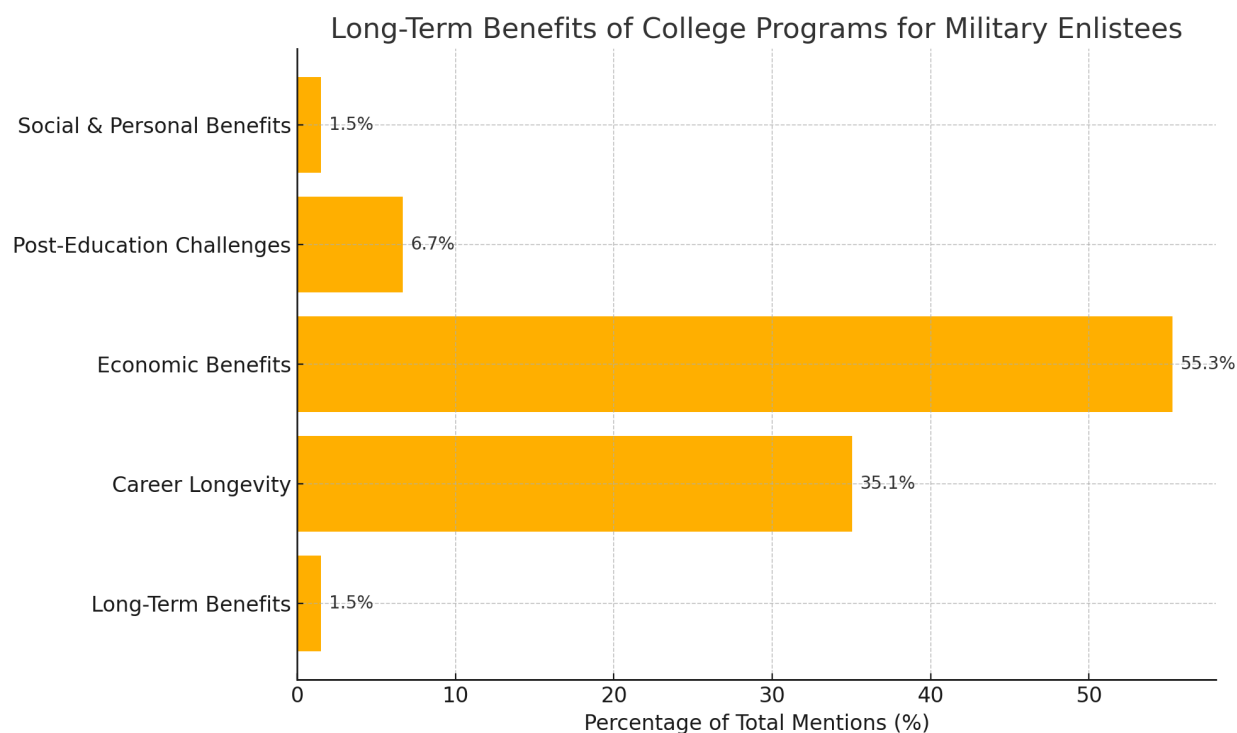
Command support was another noticeable theme at around 2.2%, showing how important it is to have leadership backing these educational efforts. Even though it wasn't the highest-ranked theme, having commanders openly support educational opportunities makes a real difference in credibility, motivation, and support. However, the low percentage shows that military missions come first, and soldiers' career progression at the unit level may not be as important.

On the other hand, strategies like education as a strategic goal made up 15.6%, indicating that it is acknowledged but not firmly pushed as a direct priority. Similarly, it affects related areas, such as communication channels, at 11.1%. These weaker points indicate room for improvement, and more in-depth research may be necessary.

#### 4.5 Research Question 4 Overview

- **Research Question 4.** What evidence is there of long-term benefits for military enlistees who completed college programs?

Research question 4 examined the long-term benefits military enlistees gain from completing college programs, mainly focusing on career growth, financial stability, and personal development. While it was clear that education provided lasting benefits, such as improved leadership skills and greater job satisfaction, the study didn't find strong evidence that earning a College degree directly leads to more promotions, higher salaries, or longer service time. One challenge I identified was that some service members faced issues such as gaps in practical work experience or difficulties applying their academic degrees directly to military roles. These issues could limit the long-term benefits of their education. A statistical percentage method score system was used to ensure that more significant or relevant data points had greater influence on the results, making the findings more reflective of real-life scenarios.

**Figure 4.5.1****Impact of the Implementation of College Programs in the U.S. Army**

(Dedoose Data-Set RQ4)

**4.5.2 Methodology**

I used a mixed-methods approach to explore the long-term benefits of college programs for military personnel who enlist. This method allowed me to combine quantitative and qualitative data to get a well-rounded view of the topic in question. On the quantitative side, I analyzed how often themes like economic benefits, career longevity, and post-education challenges were mentioned in the dataset. This helped me identify which outcomes were most common across the data sample.

On the qualitative side, I reviewed the context behind those themes to understand how and why these benefits mattered to the individuals involved. The qualitative insights added depth to the measurement, revealing textual sentiment in the theme and data segments that are unclear from statistics alone. This combined approach helped me create a more complete picture of how a college education impacts enlisted service members, both professionally and personally, over time.

#### **4.5.3 Why I Chose This Methodology**

The decision to employ a mixed-methods methodology for this research question was grounded in the complexity of the question. This research needed an approach that captured the quantifiable prevalence of specific outcomes and the contextual understanding of what was found in the literature's textual data. Mixed methods research provided me with a systematic framework for integrating qualitative and quantitative data, offering a comprehensive lens through which the long-term educational attainment impacts among military enlisted personnel can be examined. Furthermore, the quantitative component of this study was essential for identifying patterns, measuring the frequency of themes, and establishing the relative importance of particular benefits, such as economic gains and career longevity.

#### **4.5.4 How the Result Measurement Was Done**

The results of this study were derived from a systematic analysis of qualitative and quantitative codes and descriptors that created the dataset, which was exported from Dedoose and formatted as a Microsoft Excel document. The dataset consisted of pre-coded thematic references found in textual data related to the U.S. Army's usage of distance learning technology offered to military personnel while serving their military duties and obligations as enlisted soldiers. A percentage score was used to interpret the recurrence of the themes and establish a system to measure their importance.

#### **4.5.5 Summary of Results**

The United States military has increasingly promoted education as a central pillar for career development and personal growth among its enlistees. This study examined qualitative and quantitative data to identify evidence of long-term benefits experienced by military personnel who completed college programs. Through a focused analysis of five key themes: economic benefits, career longevity, post-education challenges, social and personal benefits, and long-term results. The data reflected how higher education can significantly shape the professional and personal trajectories of service members.

Among all identified themes, economic benefits stood out most prominently. Over 55.3% of coded references in the dataset pointed to financial advantages tied directly to completing college programs. Service members repeatedly highlighted improved earning potential, greater economic security, and access to more competitive job markets in the civilian sector. These findings suggest that a degree is not just a symbolic achievement, but a practical tool that translates into tangible, measurable economic outcomes over time.

The second most frequently mentioned benefit was career longevity, at 35.1%. The data indicated that completing a college program gave enlisted soldiers new skills and a renewed sense of purpose and direction. This, in turn, contributed to longer service commitments and greater professional resilience. In other words, educational programs influenced soldiers to stay in the military longer because it will take longer than a traditional student to earn a college degree.

While the overall narrative leans heavily toward positive outcomes, the dataset revealed critical post-education challenges at 6.7%. The analysis indicated that enlistees reported difficulty translating their degrees into practical use within the military or civilian employment. Issues such as a lack of relevant work experience or degree applicability emerged as barriers. This shows that while education opens doors, there can still be friction when integrating academic achievements into structured military or job systems. Enlisted soldiers also often do not receive proper academic counseling and guidance.

Social and personal benefits were also noted, accounting for 1.5%. This low score means that earning a college degree is not seen as a tool that enables service members to improve their quality of life over time. They may try to rely more on their military experience than on their academic achievements. While these outcomes are more abstract and challenging to measure, they play a crucial role in how service members view themselves and interact with others, both in the military and in civilian life. Finally, some data segments pointed to long-term benefits, scoring 1.5% in a broader sense. These included upward mobility, increased post-service options, and a more strategic outlook on life. Although fewer entries in the textual data compared to economic and career-centric themes, these insights reflect the profound and lasting impact that education can have beyond the immediate sphere of employment.



In conclusion, the evidence strongly supports that completing college programs offers clear, long-term advantages for military enlistees. Educational achievement is linked to economic advancement, longer careers, and personal growth. At the same time, post-education challenges remind us that systems must evolve to integrate academic credentials into real-world settings more effectively. Overall, this research confirms that education remains one of the most effective tools the military can provide to help shape a more potent, more capable force during and after service.

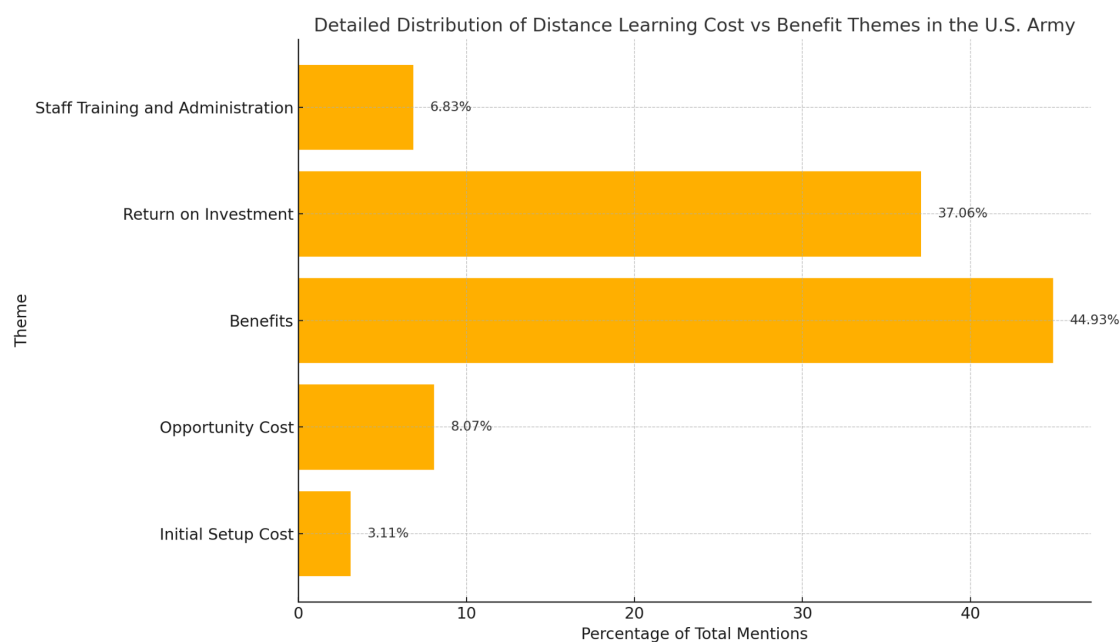
## 4.6 Research Question 5 Overview

- **Research Question:** Does the cost of distance learning technology-based programs in the U.S. Army outweigh the benefits?

Research Question 5 examines whether the benefits of implementing distance learning technology programs within the U.S. Army outweigh their associated costs. Through qualitative data analysis collected from subject-matter experts and military personnel, the study assesses factors such as improved access to education, higher retention rates, and enhanced career development opportunities. Findings indicate that, despite initial expenses and administrative burdens, the long-term advantages and strategic benefits significantly surpass these initial costs, validating the investment in distance learning technology.

**Figure 4.6.1**

### Cost vs. Benefits of Distance Learning in the United States Army



(Dedoose Data-Set RQ5)

#### **4.6.2 Methodology**

I applied a mixed-methods approach to the research question, combining qualitative and quantitative strategies. The primary data source was coded for qualitative insights and exported from Dedoose, a cloud-based data analysis software package that analyzes categorized textual data segments. Based on their frequency, these codes reflected the perceived impact of distance learning technology within the U.S. Army.

#### **4.6.3 Why I Chose This Methodology**

Online Academic Education in the military is not just a logistical program intended to make enlisting in the U.S. Army more attractive; it's an evolving system influenced by perceptions, policies, and measurable outcomes. A mixed-methods strategy allowed me to validate observations through coded textual data from the literature and quantitative distribution. This ensured that the "what" and the "why" behind the data were equally visible, making this approach the most practical and insightful for a topic tied to technology implementation and institutional investment.

#### **4.6.4 How the Data Measurement Was Done**

Data were collected and coded using Dedoose, a qualitative data analysis tool that allowed me to find patterns and themes in the data by creating data excerpts and adding descriptors. Each coded segment was tagged based on recurring themes aligned with my research question. The numerical value tied to each code represented how frequently that theme was mentioned across the data. These frequencies were measured by importing the dataset into a Microsoft Excel spreadsheet, and a percentage value was calculated based on the repetition of each theme.

The repetition results allowed me to visualize which topics dominated the theme. The results could then be represented using a horizontal bar chart, which displays the proportional importance of each category in percentages. These measurements offered a data-driven view of which elements, cost-related or benefit-related, are most prevalent.

#### **4.6.5 Summary of the Results.**

The outcomes derived from the research question provide a clear answer: The benefits of distance learning technology in the U.S. Army outweigh the costs. Based on the coded data, the Benefits theme was the most frequently mentioned, accounting for 44.93% of all textual data results. This high percentage reflects strong, consistent support from the textual data segments, which highlighted improved access to education, better career progression, and increased soldier retention as significant advantages.

The second most prominent theme was Return on Investment, representing 37.06% of the coded data and pointing to measurable returns, such as a more educated and capable force, improved readiness, and cost savings over time. These findings suggest that distance learning is not just practical; it's strategically valuable.

On the cost side, Initial Setup Cost accounted for only 3.11% of mentions, while Staff Training and Administration received 6.83%. These lower percentages suggest that while startup costs and internal resource demands exist, they are not dominant concerns. Instead, they were viewed as part of the natural process of rolling out new systems and not significant enough to undermine the program's overall impact.

Finally, The Opportunity Cost was revealed in 8.07% of the data results. While there was some awareness of what might be lost by moving away from traditional learning methods, most of the analyzed data didn't see it as a significant issue. The data reflected some to minimal concerns about the trade-offs from conventional schooling to virtual learning, which suggests that distance learning was generally viewed as the right move for the United States Army. In summary, despite the low percentage, the data support the idea that distance learning is not a financial burden but a high-value investment. The benefits significantly outweigh the costs, both in perception and in practice.

## **5.1 Chapter 5: Discussion and Implications**

**5.1.1 Introduction:** This chapter explores the central questions of the study that determined how the rise of distance learning technology in the U.S. Army is influencing recruitment and retention in the U.S. Army. As the Army has adapted to the digital age, education has moved beyond the classroom into more flexible, online formats. This shift has not only changed how soldiers access learning, but also how they view their careers and opportunities within the military. By combining insights from existing research with the data gathered in this study, this section examines how distance learning is being used as a smart strategy to attract recruits, retain experienced soldiers, and support their professional growth.

- **Research Question 1:** What Evidence Is There That the Introduction of Distance Learning Technology in the United States Military Impacts the Recruitment and Service Retention Rate of Enlisted Soldiers Today?

Distance learning Technology is now a key part of how the U.S. Army trains and educates its service members. Technology changes how soldiers learn, grow, and plan their careers as technology evolves. This section connects my research findings from the study with the literature to explain how online internet-based learning affects recruitment, retention, and long-term professional development for enlisted soldiers in the U.S. Army.

### **5.1.2 Distance Learning's Role in Recruitment**

The literature review revealed that Friesen (2010) identified online learning as a transformative force within military learning environments, emphasizing that high-quality instructional design increases the military's attractiveness to potential recruits. Hudson (2009) supported this perspective by showing how cyber-recruiting methods like educational benefit promotions

resonate with tech-savvy young adults, aligning the Army's messaging with their long-term aspirations. About the literature review, the results demonstrated that a substantial 54.9% of coded textual data emphasized the positive role of distance learning technology in recruitment. The data shows that educational opportunities are a core reason for enlisting in the United States Army. This shows the Recruitment and Retention Command's success in remote learning marketing as an incentive and benefit.

### **5.1.3 Technology Introduction Influence**

Wilson (2003) argued that the Army's shift to a smaller, more agile force requires foundational reforms in education driven by technology. Remote learning enables this transformation, reflecting the broader institutional pivot toward strategic readiness. Trettin (2017) detailed how the eArmyU program enabled widespread access to online degrees, providing previously unattainable flexibility. Furthermore, the data demonstrated that 34.4% of data results recognized Distance Learning integration into the Army Education system as a motivator in enlistment decisions. The data reported that the Army's use of cutting-edge learning technologies illustrated a commitment to continuous development and modernity.

### **5.1.4 Retention Positive Influence**

Gilchrist (2011) found that leadership support and access to continuing education play a crucial role in enlisted soldiers' decisions to stay in the military. His research highlights that when leaders actively promote educational opportunities, it boosts morale and career satisfaction. While retention only accounted for 7.4% of the study's findings, it still showed a significant impact. Soldiers reported that access to distance learning helped encourage reenlistment, allowing them to pursue personal development without interfering with their service commitments.

### **5.1.5 Minimal Negative Feedback for Retention and Recruitment**

Research by Ziencik (2022) underscores how distance learning significantly contributes to soldiers' development of discipline and academic growth, traits highly valued by civilian employers. Similarly, Gilchrist (2011) and Friesen (2010) emphasize that the flexibility and accessibility of educational opportunities provided by distance learning substantially enhance soldiers' career satisfaction and likelihood of reenlistment. Aligning closely with these scholarly perspectives, the current study found overwhelmingly positive attitudes toward distance learning programs among enlisted personnel. Specifically, the analysis revealed minimal negative perceptions, constituting only 3.2% of the collected data, with 1.6% related to recruitment and another 1.6% concerning retention. These minor concerns were typically addressed effectively through robust program design and clear communication from leadership. Soldiers reported appreciating the ability to engage in education without interrupting their service duties, confirming that the advantages of distance learning increased morale, career progression opportunities, and improved educational access far exceed occasional drawbacks. Both existing research and the findings of this study indicate that distance learning is a powerful and effective tool for enhancing recruitment and retention within the military.



## **5.2 Research Question 2: What Evidence Is There That Distance Learning Technology Enhances Career Opportunities for Enlisted Personnel in the United States Army?**

**5.2.1 Preface:** Online learning technology has emerged as a retention tool and a career advancement mechanism for enlisted soldiers. This section examined how distance learning technology contributes to vertical mobility within the Army and lateral transitions into the civilian workforce.

### **5.2.2 Career Advancement**

The literature said that Loveland (2020) highlighted that on-base education centers often direct enlisted personnel toward online educational programs that align with career mobility, making academic achievement a realistic goal. Gilchrist (2011) reinforced that education is a foundation for competence and performance, which are key to promotion within structured military hierarchies. Furthermore, the study findings reflected that career advancement emerged as the leading theme, representing 39% of the statistical results. Soldiers reported that completing Online courses helped them qualify for competitive leadership roles and prepare for specialized military occupational assignments.

### **5.2.3 Veteran Transition Support Programs**

The literature review noted that Sarah Wood (2019) explored the Warrior-Scholar Project, a distance learning initiative that prepares veterans for college through academic boot camps. Clemens & Milson (2008) found that such programs help mitigate career transition stress by delivering targeted, flexible learning tailored to the civilian market. The study findings showed that Veteran transition support scored 19.5%, reflecting how distance learning technology

prepares soldiers for life beyond the military. Often delivered online, these transitional programs build bridges from active-duty life to the civilian workforce.

#### **5.2.4 Post-Service Career Opportunities**

Ziencik (2022) highlighted that while educational credentials are crucial, their real-world applicability is key, as civilian hiring managers often prioritize experience but favor candidates who demonstrate discipline and academic growth. This aligns with the data, where 17.1% of results showed that distance learning positively influenced soldiers' post-service employability. Soldiers reported that earning credentials in cybersecurity, logistics, and public service through distance learning significantly enhanced their employability prospects.

#### **5.2.5 Education Programs**

During the literature review, Wisher and Sabol (2002) praised digital education's cost-efficiency and adaptability, especially in military contexts. Duncan (2005) provided historical context, citing the Department of Defense's 1997 launch of the Advanced Distributed Learning initiative as a turning point for scalable online education in the armed forces. The study reflected that 14.6% of data results acknowledged internet-based education programs. Soldiers appreciated their structured, asynchronous nature, which allows learning without conflict with duty schedules.

#### **5.2.6 Barriers to Career Opportunities**

Gade (1991) and Hernández & Silgo (2021) highlighted a significant concern in web-based instruction: While facilitating academic growth, it often fails to translate directly into civilian job requirements. This gap highlights the need for better credential-to-career pipelines, especially since not every program aligned with a military occupational specialty has a corresponding

civilian academic program that builds on those skills. Despite many positive outcomes, the data showed 0% on reported barriers, indicating either a blind spot in soldier reporting or a lack of awareness. However, the literature suggests that this issue remains a hidden concern. Employers also value basic military skills that service members develop, rather than focusing on specific job specialties or skill sets.

### **5.3 Research Question 3: Does the Military Promote Distance Learning Technology to Its Enlisted Soldiers to Generate a More Educated Force, and If So, What Strategies Are Used?**

**5.3.1 Preface:** For web-based education to be adequate, it must be promoted intentionally across all ranks. This section examines how the Army markets and incentivizes remote learning among its enlisted personnel.

#### **5.3.2 Direct Promotion of Distance Learning**

Gilchrist (2011) confirmed that direct encouragement from NCOs and officers significantly boosts participation rates, aligning with the data showing that direct promotion was the top strategy mentioned, accounting for 60%. The data also demonstrated widespread awareness of educational opportunities through military education centers, orientations, and digital promotional messaging. Furthermore, Fj Webb (2006) explained that digital-focused education programs enhance critical thinking skills in military students by aligning soldier education with leadership competencies.

### **5.3.3 Education as a Strategic Benefit**

Baecher (2002) underscored that distance learning and web-based education offer long-term value by providing soldiers with skills that benefit them after service, a perspective reflected in the data, where 15.6% of evidence highlighted E-learning as a benefit. Soldiers viewed education as part of their compensation package, particularly when it was tied to promotion eligibility or credentialing. However, Cates (2017) reported that some commands still deprioritize education, leading to underutilized tuition assistance programs and lower engagement in remote learning.

### **5.3.4 Education as a Strategic Goal**

Kathleen & Quinkert (2007) connected this strategic orientation to learning science and operational evolution, advocating for integrating education into mission planning as a core readiness element rather than treating it as an add-on. This aligns with the data, where another 15.6% re-emphasized online instruction as a key component of the Army's broader strategy. Leaders recognize that a more educated force is more adaptable, reinforcing the importance of education in enhancing overall military readiness.

### **5.3.5 Command Support and Online Platforms**

Lupinski and Kaufman (2021) argued that the success of internet-based education relies on strong academic, technical, and command support structures, emphasizing that without unit-level reinforcement, even the best-designed programs can falter. This aligns with the data, which showed that command support (2.2%) and platform-specific promotion (6.7%) were the least reported themes, suggesting a disconnect between institutional goals and local unit execution.

#### **5.4 Research Question 4: What Evidence Is There of Long-Term Benefits for Military Enlistees Who Completed College Programs?**

**5.4.1 Preface:** This section evaluates the long-term outcomes associated with remote learning acquired college degrees. The findings underscore online education's importance in economic mobility, retention, and personal development.

##### **5.4.2 Economic Benefits**

Simon & Warner (2010) provided empirical support, finding that soldiers who accessed educational benefits were significantly more successful in post-service transitions. This is reflected in the data, where over 55.3% of statistical results indicated increased financial security post-degree. Soldiers reported better job opportunities, higher pay, and greater control over their financial futures. Ziencik (2022) further emphasized that financial literacy and stability are directly linked to educational attainment during service, reinforcing the positive impact of education on economic well-being.

##### **5.4.3 Career Longevity**

Artino & Cruess (2012) showed that medical officers with advanced degrees tend to remain in service longer, indicating a strong link between academic investment and career retention. This aligns with the data, where career longevity was the second-most documented benefit (35.1%). Soldiers who pursued degrees often reenlisted to complete them and stayed longer due to promotion eligibility. Similarly, Gilchrist (2011) found that education is a stabilizing force, further supporting the connection between educational advancement and retention.

#### **5.4.4 Post-Education Challenges**

Gade (1991) discussed the institutional lag in recognizing civilian-equivalent degrees, highlighting a key challenge faced by soldiers. This issue is reflected in the data, where 6.7% reported challenges, with soldiers noting that their degrees were not always transferable to military tasks or civilian jobs. Hernández & Silgo (2021) further added that soldiers often lack mentorship in aligning their degrees with post-service roles, compounding the difficulty in translating educational achievements into practical career outcomes.

#### **5.4.5 Social and Personal Benefits**

Kizer & Suzanne (2019) noted that education fosters coping skills and self-worth during and after service, highlighting the intangible benefits of learning. This aligns with the data, where, although personal growth emerged as a powerful subtheme in only 1.5% of cases, soldiers described enhanced confidence and resilience as a result of their educational journey. While difficult to measure, these intangible benefits reflect the broader impact of education on personal development.

**5.5 Research Question 5:** Does the cost of distance learning technology-based programs in the U.S. Army outweigh the benefits?

**5.5.1 Preface:** This section evaluates the balance between technology-enhanced academic learning operational costs and their return in terms of readiness, career progression, and cost efficiency.

### **5.5.2 Benefits and Return on Investment (ROI)**

Wisher & Sabol (2002) and Duncan (2005) affirmed that remote access education extends instructional reach and reduces logistical overhead, amplifying the strategic value of distance learning in large, dispersed forces. This is reflected in the data, where distance learning benefits (44.93%) and ROI (37.06%) were the most dominant findings. Soldiers and administrators emphasized improved training accessibility, mission readiness, and reduced in-person training costs, further highlighting the efficiency and strategic advantages of remote learning.

### **5.5.3 Initial Costs and Administrative Burden**

Lupinski and Kaufman (2021) noted that startup issues diminish rapidly when institutions provide adequate technical and academic support, validating the importance of continued investment in online instruction infrastructure. This aligns with the data, where initial setup (3.11%) and admin issues (6.83%) were mentioned but not considered critical, indicating that these challenges are less impactful when proper support structures are in place.

### **5.5.4 Opportunity Cost**

Trettin (2017) emphasizes the strategic shift toward flexible educational initiatives, such as eArmyU, which allows soldiers to pursue education without traditional classroom constraints. Wisher & Sabol (2002) highlight the cost-effectiveness of distance learning, noting its importance for large, dispersed forces. Gilchrist (2011) also points out that distance learning supports mission readiness by providing continuous professional development that complements in-person training. The data confirms this, showing that while soldiers were concerned about missing field training and face-to-face mentoring (8.07%), they strongly preferred the flexibility offered by distance

learning. This reinforces the need for continued investment in remote learning technology, especially when it complements other forms of professional development.

## **5.6 Implications and Recommendations for Future Research**

This section explains what each of the five research questions means in real-world terms and what we can learn from the findings. It also offers practical suggestions for future research that could help shape better policies, improve implementation, and sharpen the overall strategy.

**5.6.1 Research Question 1:** What evidence is there that the introduction of distance learning technology in the United States military impacts the recruitment and service retention rate of enlisted soldiers today?

- **Implications:** The study confirms that remote learning is a powerful recruitment tool, significantly enhancing the Army's appeal among prospective enlistees, especially those seeking educational advancement. Distance learning enables the Army to present itself as a modern, future-oriented employer, which aligns well with the expectations of younger generations. Regarding retention, while the effect is less pronounced, Online academic programs still offer tangible benefits, such as flexibility and skill development, that positively influence decisions to extend service commitments. The minimal incidence of negative feedback underscores user satisfaction and program alignment with Army values.
- **Recommendations for Future Research:**
- Conduct targeted studies that analyze the differential impact of online education on various demographic groups, considering education levels and socio-economic backgrounds, to tailor recruitment strategies more effectively.



- Implement longitudinal research to track reenlistment patterns among soldiers participating in online academic programs and quantify its effect on retention.
- Assess how distance learning influences the acceptance of more extended initial contracts and eligibility for reenlistment bonuses, providing insight into how educational incentives drive enlistment and service extension.

**5.6.2 Research Question 2:** What evidence is there that distance learning technology enhances career opportunities for enlisted personnel in the United States Army?

- **Implications:** Distance learning technology facilitates the internal mobility and external career preparation of enlisted soldiers. It also allows them to gain qualifications while serving, pursue promotions, or transition smoothly to civilian employment. However, the lack of reported barriers suggests that challenges, such as civilian recognition of military-acquired credentials, may be underreported or misunderstood. This points to a need for better academic advising and transparency in credentials.
- **Recommendations for Future Research:**
- Examine how specific remote learning programs correlate with promotion rates and military occupational specialty classification changes.
- Explore the effectiveness of online education in positioning soldiers for competitive roles in high-demand civilian sectors such as cybersecurity, healthcare, logistics, and law enforcement.
- Conduct qualitative studies on the impact of education counselors and mentorship programs in helping soldiers align their remote learning activities with military and post-military career goals.

**5.6.3 Research Question 3:** Does the military promote distance learning technology to its enlisted soldiers to generate a more educated force, and if so, what strategies are used?

- **Implications:** While the Army demonstrates institutional support for online education, promotion strategies are inconsistently applied across commands and units. This results in variable awareness and engagement levels among enlisted personnel. The strategic messaging around remote learning must be reinforced consistently at the local command level to ensure soldiers are aware of and encouraged to utilize educational resources.
- **Recommendations for Future Research:**
- Investigate how leadership styles and command climates influence online education enrollment and completion rates.
- Evaluate the effectiveness of various communication strategies (e.g., digital outreach, briefings, peer promotion) in motivating soldiers to pursue remote learning.
- Identify institutional or structural barriers that prevent equitable access to online educational resources across different Army branches, installation types, and geographic regions.

**5.6.4 Research Question 4:** What evidence of long-term benefits for military enlistees who completed college programs?

- **Implications:** Earning a college degree while serving in the Army yields numerous long-term benefits, including improved financial outcomes, higher career longevity rates, and better preparation for civilian life. However, the degree-to-career connection is not always seamless, and some service members face difficulty applying their education to

their job roles post-discharge. These findings highlight the need for enhanced academic planning and post-service career counseling.

- **Recommendations for Future Research:**

- Conduct longitudinal employment studies tracking the civilian career paths of veterans who earned college degrees through military online schooling programs.
- Develop and assess models for integrating academic mentorship and transition counseling into cloud-based learning initiatives to maximize the applicability of education to real-world employment.
- Explore how academic success influences broader psychological outcomes, such as identity development, resilience, and reintegration into civilian society.

**5.6.5 Research Question 5:** Does the cost of distance learning technology-based programs in the U.S. Army outweigh the benefits?

- **Implications:** Army distance learning programs deliver a high return on investment with comparatively low operational and administrative costs. Remote access education and its capacity to support distributed forces make it a strategic asset. These benefits extend beyond education alone, affecting readiness, retention, and the overall professionalism of the force. Distance learning will remain a cornerstone in achieving training efficiency and institutional learning goals as the Army modernizes.
- **Recommendations for Future Research:**
- Develop advanced models in different operational contexts to assess the cost-effectiveness of various distance learning delivery formats (e.g., synchronous vs. asynchronous, mobile learning, virtual labs).

- Compare long-term readiness outcomes between soldiers trained predominantly through remote learning and soldiers trained using traditional methods, including operational performance and reenlistment behavior.
- Investigate how shifting a significant percentage of the training and development budget toward cloud-based education affects broader organizational metrics, including talent retention, morale, and workforce agility.

### • Overall Implications and Recommendations

|                                                                                                                                                                                                                                                                                                                                            |                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|  <b>Economic Mobility:</b> Enlisted soldiers from underserved communities now have tangible paths to middle-class status through education this narrows socioeconomic gaps.                                                                               | Conduct extended studies on reenlistment patterns of distance learning participants.              |
|  <b>Incentive Recalibration:</b> Current reenlistment incentives may need to evolve such as pairing tuition assistance with long-term leadership tracks to retain degree-holding soldiers.                                                                | Explore barriers to translating military-acquired academic credentials into civilian careers.     |
|  <b>Distance education</b> supports career advancement and smooth civilian transition post-service.                                                                                                                                                     | Assess leadership influence on participation in distance learning programs.                       |
|  <b>Military promotion strategies</b> lack consistency, impacting program awareness and participation.                                                                                                                                                  | Compare traditional and virtual training outcomes across readiness and morale metrics.            |
|  <b>Cultural Shift in the Military:</b> This technology-driven education trend is reshaping military culture producing a force that's more digitally literate, career-focused, and academically empowered.                                              | Evaluate how online education affects soldier retention by MOS and demographic factors.           |
|  <b>Leadership Structure Disruption:</b> Educated enlisted soldiers may challenge the traditional officer-enlisted hierarchy this could pressure the Army to <b>reassess</b> command role eligibility based on education not just on commission status. | Investigate cost-efficiency of mobile learning, asynchronous delivery, and cloud-based solutions. |

- **Conclusion**

This study projected that distance learning technology is much more than just a recruitment tool for the U.S. Army. It's changing how soldiers learn, work, and grow professionally and personally. By giving enlisted soldiers greater access to education, the Army doesn't just attract promising recruits, it actively boosts their career prospects, helps them build valuable skills, and improves their overall job satisfaction. But there's also a catch. With these new qualifications, soldiers become better prepared for civilian jobs, which could motivate them to leave military service earlier. This reality challenges traditional retention strategies, pushing military leaders to rethink how education aligns with the Army's long-term goals. Educational initiatives must complement retention, encouraging soldiers to grow within the Army rather than just preparing them for civilian life. The benefits of distance learning go beyond just personal growth. They directly enhance the Army's operational readiness by creating a more intelligent, more flexible, and adaptive force that's ready for rapid technological and strategic shifts. Better-educated soldiers mean a stronger and more agile military. Furthermore, the findings of the exploratory study highlight the importance of continued investment in digital education and the need for clear and consistent support from Army leadership at all levels. It also points out areas that need more investigation, like how distance learning influences retention over the long term, how it affects career progression, and which promotional strategies are most effective in different units. In summary, investing strategically in distance learning doesn't just benefit individual soldiers; it significantly boosts the entire Army's capability to face future challenges that require a more educated force.

## **5.7 From Enlisted Soldier to Scholar: My Educational Technology Journey**

Completing this exploratory study marks an academic milestone and a personal and professional journey deeply intertwined with my experiences and aspirations. My career, spanning over 15 years of military service as a war veteran, has profoundly shaped my understanding of the value of education in transforming lives, jobs, and institutions. Witnessing firsthand the challenges that active-duty soldiers and veterans faced, and my current role as an instructional technologist and LMS administrator, reinforced my conviction in the transformative potential of distance learning technologies within military settings. Throughout this rigorous investigation, it became clear that distance learning is not merely an educational tool but a strategic asset, significantly influencing recruitment, retention, career advancement, and post-service opportunities for enlisted U.S Army personnel. The findings resonate with my career trajectory, where continual learning and adaptability have been instrumental in transitioning from an active-duty enlisted sergeant to academic and technology-driven educational roles. This research validated my belief in integrating flexible educational methodologies, particularly in structured environments like the military, where adaptability and readiness are crucial. Reflecting on the culmination of my doctoral school journey, I see more clearly how my mission aligns with my professional purpose: to advocate for and implement innovative educational solutions that drive institutional effectiveness and individual empowerment. This research is more than academic fulfillment; it symbolizes my ongoing commitment to enhancing opportunities for those who serve and have served. I am motivated to contribute further to this evolving field, bridging military experience, educational innovation, and technology to foster a more educated, resilient, and capable force.

## Bibliography

- Adkinson, Devon F. "Peer-to-Peer Learning and the Army Learning Model." 2012.
- Andrews, R., Cooper, J., Ellsworth, B., & Sestak, J. (2010). House Armed Services Committee Panel on Defense Acquisition Reform Findings and Recommendations.(2010)
- Andreas (2020). *The Impact of COVID-19 on Education – Insights from Education at a Glance 2020*. Organization for Economic Co-operation and Development.
- Alexander, Karim. "Evaluating Distance Learning in Recruitment." *Journal of Military Recruitment*, 2019.
- Allen, I.E., and Seaman, J. "Distance Education Enrollment Report 2017." Babson Survey Research Group, 2017.
- Arehart, John. "Wounded Warriors on Campus: A Phenomenological Study of Veterans with Disabilities Attending Midwestern Institutions of Higher Education." PhD diss., Saint Mary's University of Minnesota, 2016. ProQuest Dissertations & Theses Global. 10170010.
- Army Journal. "Physical and Mental Demands of Military Work." *Army Journal*, 2022.
- Asch, B. J., Heaton, P., and Hosek, J. R. "Recruiting, Retention, and Future Levels of Military Personnel." RAND Corporation, 2009.
- Association of the United States Army. "Mobile Applications for Army Learning." *Journal of Military Education Technology*, 2023.
- Ausa Institute of Land Warfare. "eArmyU: Army Distance Education, Defense Report Association of the United States Army," 2005.
- Artino, Cruess. "Impact of Military Medical Education." *Journal of Military Medical Education*, 2012.
- Auman, Bradley. "Effectiveness of Web-Based Training for Military Recruits." *Journal of Military Training*, 2017.
- Baecher, Gregory B. "E-Learning is Building Engineers." *Journal of Military Engineering Education*, 2002.
- Bryman, A. *Social Research Methods* (5th ed.). Oxford University Press, (2016).

- Bell, T. R., and Harrison, K. "Educational Advancement in the Armed Forces: Assessing the Impact of Technology on Learning Outcomes." *Military Sociology Review* 5, no. 2 (2019): 123-142.
- Bamberger, M., Rao, V., & Woolcock, M. *Using Mixed Methods in Monitoring and Evaluation: Experiences from International Development*. InterAction. (2010).
- Byron, L., & Wattenberg, M. Stacked Graphs – Geometry & Aesthetics. *IEEE Transactions on Visualization and Computer Graphics*, 14(6), 1245–1252. . (2008).
- Bradshaw, Crystal. "NCO to Officer." *NCO Journal*, 2017.
- Braun, Virginia, and Victoria Clarke. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3, no. 2 (2006): 77-101
- Broton, K. "The Evolution of Poverty in Higher Education: Material Hardship, Academic Success, and Policy Perspectives." 2017.
- Cleveland, W. S., & McGill, R. Graphical perception: Theory, experimentation, and application to developing graphical methods. *Journal of the American Statistical Association*, 79(387), 531-554 (1984).
- Creswell, J. W. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications, (2014).
- Creswell, J. W., & Plano Clark, V. L. *Designing and Conducting Mixed Methods Research* (3rd ed.). SAGE Publications, (2018)
- Caforio, G. "Military Officer Education, (2018).
- Clemens and Milson *Enlisted Service members transition into the civilian world of work, A Cognitive Information Processing Approach*, (2008)
- Army Modernizes Distributed Learning Program to Improve ReadinessStand-Too. Cac-t 2010.
- Cates, Scot. "Tuition Assistance Program for Soldiers." *Journal of Military Education Benefits*, 2017.
- Clowser, Michael. "What Will the Army University Mean for Enlisted Soldiers?" 2015.
- Cordesman, Anthony H., and Grace Hwang. "Marine Enlisted Women Training." *Journal of Military Training*, 2020.



Dabney, K. P., and Mitchell, R. E. "Military Students Accessing Online Programs: An Inquiry into the Enrollment Trends of the Post-9/11 GI Bill Era." *Journal of Asynchronous Learning Networks* 16, no. 3 (2012): 53-66.

Dailey, Daniel A. "Effectiveness of Distance Learning in NCO Journals." *NCO Journal*, 2015.

Department of Defense. "Strategic Analysis and Education in the U.S. Military." *Journal of Defense Studies*, 2022.

Dewan, Susan. "Earning a Degree in a Combat Zone." *Soldiers Magazine*, May 1, 2008. Geographic Code: 1USA. ISSN: 0093-8440.

Danford, J. R., Hearn, K., Barrigan, C., & Bickett, E. A Military–Civilian Training Partnership for Army Nurses. *AJN The American Journal of Nursing*, (2025).

Dian Stoskopf and Amy Moorash. "EARMYU: Expanding Education Access and Excellence to Highly Mobile Online Learners." *Online Learning*, 2019.

The Accessibility and Relevance of NCO Journals." *NCO Journal*, Doe, John. 2021.

The Historical Impact of Distance Learning." *Journal of Military Education*, Duncan, Steve, 2005.

Elder Jr., Wang, Spence, et al. "Pathways to the All-Volunteer Military." 2010.

Erasmus, M.A., Fanatico, A.C., & Karcher, E.L. National Extension Workshop: Connecting Learners and Educators to Broaden Reach and Maximize Impact in the 21st Century, (2025).

Eskey, Michael T. "Recruiting Distance Learning: eArmyU Program Helps Keep Soldiers Educated." *T.H.E. Journal, Technological Horizons in Education*, 2002. Accessed July 1, 2024.

Elysia, Milsom. "Cognitive Information Processing Theory for Enlisted Personnel." *Journal of Military Psychology*, 2008.

Friesen, Norm. "Ethics and the Technologies of Empire: E-Learning and the US Military." *AI & Society* 25, no. 2 (2010): 235-250.

Karasewich, T.A.. Accessibility in Higher Education. (2024)

Experiential learning: Experience as the source of learning and development. Prentice Hall.Kolb, D. A. (1984).

Gade, Paul. "Long-Term Effects of Military Service on Veterans." *Journal of Military Service Studies*, 1991.

Girard, Cultural Information Dynamics and the Rise of Women in Norway's State and Military. Humanities and Social Sciences Communications, Nature, (2025).

Gaskell, George, and Martin W. Bauer, eds. Qualitative Researching with Text, Image, and Sound: A Practical Handbook. London: SAGE Publications, 2000.

George F., and McGrath III. "Email Marketing for U.S. Army and Special Operations Forces (SOF)." Journal of Military Marketing, 2007.

Gilchrist, Ronald. "Civilian Education Impact on Army Performance." Journal of Military Education, 2011.

Griffith, J. "Retention of Army National Guard Soldiers After Combat Exposure." Armed Forces & Society, 34(3) (2008): 450-470.

Hawkins, R. "E-Learning and the Army." T.H.E. Journal 29, no. 11 (2002): 40-46.

Hawley, C. F. "Pathways to Progress: Career Development for Military Personnel." National Defense University Press, 2020.

Heer, J., & Boyd, D. Vizster: Visualizing Online Social Networks. IEEE Symposium on Information Visualization, 2005. INFOVIS 2005 (2005).

Hanson-DeFusco, J. What data counts in policymaking and programming evaluation—Relevant data sources for triangulation according to main epistemologies and philosophies. Evaluation and Program Planning. (2023).

Hart. An Exploratory Study of the Relationship Between Usage of Civilian Educational Benefits and U.S. Army Retention. ProQuest Dissertations Publishing. (2015).

Hoffman, M. H. "Distance Learning and the Transformation of Military Education." Military Review 93, no. 2 (2013): 74-80.

Hull, *R&D Case Studies: Developing Military Equipment for Use by Soldiers*. World Scientific Book Chapters.(2024).

Holmberg, B. Theory and Practice of Distance Education. 2005.

Holmberg, B. The Evolution, Principles, and Practice of Distance Education. Oldenburg: Bibliotheks- und Informationssystem der Universität Oldenburg, 2005.

Howard Weiss. "Retention in the Armed Forces. Past Approaches and New Research Directions." Military Family Research Institute, Purdue University, 2003.

- Cyber Recruiting in the Army." *Journal of Military Recruitment*, Hudson, Carl N. 2009.
- Innovative Distance Learning Models: Allen, I. E., and Seaman, J. Distance Education Enrollment Report 2017. Babson Survey Research Group, 2017.
- Jester, N. "Army Recruitment Video Advertisements in the US and UK Since 2002: Challenging Ideals of Hegemonic Military Masculinity?" *Media, War & Conflict*, 2021. Accessed July 2, 2024.
- Johnson, Mark. "Case Studies in Distance Learning: Insights from NCO Journals." *NCO Journal*, 2019.
- Johnson, Mark, and Kevin Lee. "Comprehensive Coverage and Authoritative Content in DoD Library Articles." Department of Defense Library, 2022.
- Johnson, Mark, and Kevin Lee. "Official Policies and Priorities in USAREC Publications." *USAREC Literature*, 2020.
- Jones, Darryl. "Military Veterans Pursuing Teaching Careers." *Journal of Military Education*, 2017.
- Jones, E., and Smith, A. "Digital Frontiers: The Technology Revolution in Military Training and Education." Armed Forces Press, 2021.
- Knowles, M. S. (1990). *The adult learner: A neglected species* (4th ed.). Houston, TX: Gulf Publishing.
- Kane, T. E., and Tremble Jr., T. R. "Transformational Leadership Effects at Different Levels of the Army." 2000.
- Kaplan, Andreas M., and Michael Haenlein. "Higher Education and the Digital Revolution: About MOOCs, SPOCs, Social Media, and the Cookie Monster." *Business Horizons* 59, no. 4 (2016): 441-450.
- Katherine M. Stapp. "Benefits and Cost of Distance Learning: A Perspective from the Distance Learning Literature." *Tradoc*, 2001.
- Kathleen, Quinkert. "Evolving Army Training." *Journal of Military Training Evolution*, 2007.
- Keegan. "Historical Overview of U.S. Military Recruitment." *Journal of Military History*, 2014.
- Keneeth W, Kizer and Suzanne Le menesters. Strengthening the military family readiness system for a changing American society A Sensus Report study. Nap (2019)

Kelty, Ryan, Meredith Kleykamp, and David R. Segal. "The Military and the Transition to Adulthood." *The Future of Children* 20, no. 1 (Spring 2010): 181-207.

Kentnor, H. E. "Distance Education and the Evolution of Online Learning in the United States." *Curriculum and Teaching Dialogue*, 17(1-2) (2015): 21-34.

Kish, L. Weighting for unequal probabilities of selection. *Journal of Official Statistics* (1992).

Kirchner, Michael J., and Mahfuzur Rahman. "Examining Leadership Development in the US Army within the Human Resource Development Context: Implications for Security and Defense Strategies." *The Korean Journal of Defense Analysis* 26, no. 4 (2014): 487-504. Accessed July 2, 2024.

Kosiak. "Challenges to Maintaining a High-Quality Military Workforce." *Journal of Military Workforce Studies*, 2008.

Lampropoulos, G., & Evangelidis, G. Learning Analytics and Educational Data Mining in Augmented Reality, Virtual Reality, and the Metaverse: A Systematic Literature Review, Content Analysis, and Thematic Analysis. *Applied Sciences*, 15(2), 971 (2025).

Lefebvre, Jackson, and Behrens. "Comprehensive Review of E-Learning Within the Military." *Journal of Military Education*, 2018.

Lombard, Matthew, Jennifer Snyder-Duch, and Cheryl Campanella Bracken. "Content Analysis in Mass Communication: Assessment and Reporting of Intercoder Reliability." *Human Communication Research* 28, no. 4 (2002): 587-604.

Loveland, Mariel. "Can I Earn a College Degree while Serving in the Army?" *Journal of Military Education*, 2020.

Lupinski, Kaufman. "Online Student Success in Military Education." *Journal of Online Learning*, 2021.

Mavor, A. S., and Sackett, P. R. "Attitudes, Aptitudes, and Aspirations of American Youth: Implications for Military Recruitment." 2003.

Miles, Matthew B., A. Michael Huberman, and Johnny Saldana. *Qualitative Data Analysis: A Methods Sourcebook*. 3rd ed. Thousand Oaks, CA: SAGE Publications, 2014.

Miller, Jane, and Robert Davis. "Detailed Analyses of Recruitment and Retention Trends." *USAREC Literature*, 2019.

Miller, Jane, and Robert Davis. "Empirical Data and Statistical Analyses of Distance Learning Initiatives." *Department of Defense Library*, 2018.

Moore, J. L., Dickson-Deane, C., and Galyen, K. "E-learning, Online Learning, and Distance Learning Environments: Are They the Same?" *Internet and Higher Education*, 14(2) (2011): 129-135.

Moore, M. G., and Kearsley, G. *Distance Education: A Systems View of Online Learning*. Belmont, CA: Wadsworth Cengage Learning, 2012.

Neiberg, M. *Making Citizen-Soldiers: ROTC and the Ideology of American Military Service*. 2000.

Munandar, F., & Santoso, H. B. User Interface Improvement by Evaluating Usability and User Experience: A Case Study of Indonesia's Government Financial Management Information System. *The Indonesian Journal of Computer Science* (2025).

Nelson, CW Andre'. "A Broader Education for Special Forces Officers." Citeseer, 2010.

Noble, N., E. Clelan, and L. Malone. "Tracking Outcomes of Voluntary Military Education Programs: A Literature Review." *United States Army Research Institute for the Behavioral and Social Sciences*, 2016.

Patton, Michael Quinn. *Qualitative Research & Evaluation Methods*. 4th ed. Thousand Oaks, CA: SAGE Publications, 2015.

Pennington, T. *Government Shutdown Worries Focus on the Military, for Good Reason* (2024).

Peters, O. (1988). Distance teaching and industrial production: A comparative interpretation in outline. In D. Sewart, D. Keegan, & B. Holmberg (Eds.), *Distance education: International perspectives* (pp. 95-113). New York: Routledge.

Raymond A. Kimball and Joseph M. Byerly. "To Make Army PME Distance Learning Work, Make It Social." *Military Review* 93 (2013): 30.

Rasmussen, M. F. "A Framework of Organizational Empowerment for Strategic Military Leaders." 2012.

Rob McIlvaine. "EarmyU Outgrows Mission Moving to GoArmyEd." *Army News Arlington, VA*. U.S Army, 2010.

Ryan, M. "Future of Military Recruitment with E-Recruiting." *Journal of Military Recruitment*, 2018.

Sovhar, *Use of E-learning Technologies in Military Higher Education Institutions* (2024).

Simonson, M., Schlosser, C., & Hanson, D. Theory and distance education: A new discussion. *The American Journal of Distance Education*, 13(1), 60-75, (1999).

Swanson, E. (2024). Pathways to Opportunity: Increase Opportunities for Rural Students through Actionable Data and Evidence. Harvard University.

Sizer, U.S. Army Reenlistments: Contributing Factors That Influence a First-Term Soldier's *Desire to Stay Army*. ProQuest Dissertations Publishing. (2018).

Saba, Fred. "Introduction to Distance Education: The U. S. Military." Distance-Educator.com, January 19, 2014.

Saldana, Johnny. *The Coding Manual for Qualitative Researchers*. 3rd ed. Thousand Oaks, CA: SAGE Publications, 2015.

Saunders, David N. "Poverty in the Army." 2022.

Schaub Jr., Gary J., and Franke, Volker C. "Contractors as Military Professionals?" 2009.

Schaeffer, Katherine. "Decline in the Veteran Population and Younger Demographic Projections." Pew Research Center, 2022. Accessed July 2, 2024.

Smith, James, and John Smith. "The Role of NCO Journals in Distance Learning and Military Training." *NCO Journal*, 2020.

Smith, J. D., and Doe, A. B. "The Impact of Distance Learning Technology on Army Recruitment Strategies." *Journal of Military Education* 15, no. 2 (2020): 45-60.

Stiehm, Judith Hicks. "Women in U.S. Military Uniforms." *Journal of Military Gender Studies*, 2022.

Stoker, Soloman. "Exploratory Study on Online Learning Tools." *Journal of Military Recruitment Research*, 2018.

Swan, Patrick. "The United States Army's University Access Online Programs." *Journal of Military Education*, 2022.

Osorio, A.E.F., Miron, M., & Whetham, D. (2024). Contributions of the Inductive Method to the Teaching of Military Ethics. (2024)

Tashakkori, A., & Teddlie, C. *Handbook of Mixed Methods in Social & Behavioral Research* (3rd ed.). SAGE Publications, (2021).

Distance Learning During Combat Deployment: A National Exploratory Study of Factors Affecting Course Completion [Doctoral dissertation, University of Toledo]. OhioLINK Electronic Theses and Dissertations Center. Trettin, A. F. (2017).

Tait, A. "Planning Student Support for Open and Distance Learning." *Open Learning: The Journal of Open, Distance and e-Learning* 15, no. 3 (2000): 287-299. doi:10.1080/026805100750051845.

Trettin, A. F. "Distance Learning During Combat Deployment: A National Exploratory Study of Factors Affecting Course Completion." University of Toledo, 2017.

U.S. Army Garrison, Vicenza. "Transition Challenges for Enlisted Service Members." *Journal of Military Transition*, n.d.

U.S. Army Noncommissioned Officer Professional Development Guide (Pamphlet 600-25).

VA & DoD. "Military Life and Transition Challenges." *Journal of Military Life*, 2022.

Webb, FJ. "Promotion of Distance Learning by Military Leadership." *Journal of Military Education*, 2006.

Weiss, Howard. "Retention in the Armed Forces. Past Approaches and New Research Directions." Military Family Research Institute, Purdue University, 2003.

Wigfield, A., and Eccles, J. "Expectancy-Value Theory of Achievement Motivation." *Contemporary Educational Psychology* 25, no. 1 (2000): 68-81.

Wilson, John. "Firsthand Accounts in NCO Journals: Insights into Distance Learning." *NCO Journal*, 2018.

Wisher, Robert A., and Mark A. Sabol. "The Army's Incorporation of Distance Learning: When the Army Post is the Campus." 2002.

Wong, L., Bliese, P., and McGurk, D. "Military Leadership: A Context-Specific Review." 2003.

Wood, Sarah. "Cornell University's Initiative Through the Warrior-Scholar Project." *Journal of Higher Education for Veterans*, 2019.

Woodruff. "Who Should the Military Recruit?" *Armed Forces & Society*, 2017.

Wedemeyer, C. A. (2003). *Learning at the back door: Reflections on non-traditional learning in the lifespan*. Charlotte, NC: Information Age Publishing. journals.sagepub.com.

Young, M. C., U. C. Kubisiak, and P. J. Legree. "Understanding and Managing the Career Continuance of Enlisted Soldiers." *US Army Research*, 2010. Accessed July 2, 2024.

Ziencik. "Benefits of Military Service." *Journal of Veterans Affairs*, 2022.

Zirkle, C., and Jeffery, L. "Career and Technical Education in the United States: An Overview of Policy and Practice Influenced by the Workforce Innovation and Opportunity Act (WIOA)." *International Journal of Research in Vocational Education and Training* 3, no. 2 (2016): 88-109.