**Military Deployments: Evaluating Teacher Knowledge**

by

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Abstract

This mixed method study examined the possible influence of a military deployment online tutorial on teacher knowledge. DoDEA and public school teachers were the two groups used for the study. From this exploratory study, the researcher also wanted to explore if teachers would find professional development provided in an online tutorial relevant and useful for expanding their knowledge of military children. Empirical studies of online professional development opportunities for teachers in the area of military children and deployment appear meager. Similarly, there are few empirical studies that evaluate teacher knowledge concerning military deployments. The tutorial was used to inform these teachers of three important areas related to deployment and military children: 1) how deployment is defined and what the deployment cycle entails, 2) stressors children encounter as a result of having a parent deployed and 3) what teachers can do to help children with deployment stressors encountered during deployment.

The findings revealed that there was a statistically significant difference ($p < .01$) in overall teacher knowledge. The researcher wanted to know the relationship of teachers' overall knowledge of deployment related issues as measured by the pretest, the online tutorial, and the posttest measure of deployment knowledge. The results provided evidence of a statistically significant improvement in teacher knowledge after participating in the online Military Deployment Tutorial. The large effect size provided strength and confidence in the validity of the instrument. Comments from the survey portions of the instrument revealed that the online

military tutorial is beneficial as a public service to educate participants and raise awareness of military deployments. Implications for school administrators and recommendations for future studies were addressed in chapter five. This research study was not only prompted by the literature surrounding the topic, but also by the realities witnessed by the researcher as a child, throughout his time in military service, and as a DoDEA teacher.

## Acknowledgments

This study is dedicated to all military children who have lost a parent or a sibling while serving in the military. I wish to acknowledge and express my sincere gratitude to my committee members, Dr. Maria Witte and Dr. David DiRamio, for their continued support throughout this research study. I must also thank Dr. Dell McMullen and Dr. Mark Neighbors, for their wholehearted support. I give thanks to Mrs. Altamese Stroud-Hill for helping with the format and Dr. Allen Dyal, my outside reader for the final touches. I also give special thanks to Dr. Ellen Reames. As chair she has advised me throughout the dissertation process. I am grateful for her guidance, assistance, wisdom and candid advice. Her unwavering support gave me self confidence and motivation to stay the course, move the ball forward, and complete the task. I give thanks to my friends, and fellow colleagues for all of their support and encouragement throughout this process.

I must give thanks to my mother whom I love so dearly for enduring the deployments of my father, my brothers, and myself. Lastly, I gave thanks to my sweet and precious love, my wife Marion, for her unselfish support, for standing by my side and encouraging me throughout this journey.

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# CHAPTER 1. NATURE OF THE STUDY

## Introduction

During the mid-sixties, our country's troops were at war in Vietnam. My older brother received orders and deployed to Vietnam May 5, 1965. We were both very young then, he was eighteen and I was ten. Less than a year later he called my parents from Zama, a military base located in Japan, and informed them he was awarded the Purple Heart. The Purple Heart is awarded to service members for wounds received in action while engaging a hostile adversary (United States Department of Veterans Affairs, 2010). In the same year, I had another brother drafted into the United States Army. He deployed to Vietnam on his birthday, November 5, 1966. Two months later his body was shipped home and he was buried in Chicago, Illinois. Although these events took place over forty years ago, the memories linger as I observe my own students experiencing many of the same emotions and academic struggles I felt growing up. As in earlier generations, today's military child must endure the deployment of their parents or caretakers.

I have taught in the public school system but the vast majority of my teaching experience has been with the Department of Defense Educational Activity (DoDEA). Through DoDEA, I have established relationships within the military community that keep me connected to my military roots. Casual conversations with parents often reveal how much we have in common, especially when it comes to military deployment issues.

Having served over twenty-four years in the United States Army, and being a parent who had two sons deployed to Iraq, I feel connected to the military family. As parents, the year 2010 was the third time my wife went through the military deployment cycle with our children. Thus, I have often experienced the same issues and concerns that military parents and children may face.

Conversations with my DoDEA and public school colleagues regarding military deployment suggest they have the passion, desire, and willingness to attend to the educational needs of the children. At the same time these well intended educators may lack knowledge in regards to military deployment, the stressors that come with deployment and how educators can support students confronted by the emotional and psychological strains of deployment.

A military deployment occurs when a military member is assigned to an operation, location, command or duty that is different from their normal duty assignment, (7-Dippity, 2003; Booth, et al., 2007; Lyle, 2006). For this study, a military deployment is the movement of an individual or military unit away from home to another location to accomplish a specific military mission (Booth, et al., 2007; Lyle, 2006). Deployment may be a single tour or multiple tours. In fact, some military personnel have deployed up to five times to Iraq and Afghanistan.

## Purpose of the Study

The purpose of this mixed methods study was to investigate the relationship between an online military deployment tutorial and teacher knowledge related to military deployment. In addition, the researcher wanted to discern if teachers would find professional development provided in an online tutorial to be relevant and useful in

expanding their knowledge of military children. The researcher created an online tutorial of military deployment issues to be used by teachers and administrators in public schools and DoDEA schools. The tutorial was used to inform these teachers of three important areas related to deployment and military children: 1) how deployment is defined and what the deployment cycle entails, 2) stressors children encounter as a result of having a parent deployed, and 3) what teachers can do to help children with deployment stressors encountered during deployment. From this exploratory study, the researcher wanted to determine if online tutorials could be helpful in increasing knowledge about deployment related issues.

## Significance of the Study

In general, the literature pertaining to military deployments and student outcomes continues to expand and there are studies that address the effects of emotional and psychosocial stressors on military parents, children and families (Chandra, Lora-Cinisomo, Jaycox, Tanielian, & Rachel, 2010; Cozza, Chun, & Polo, 2005; Dowdney, 2000; Park, 2011; Pincus, House, Christensen, & Adler, 2006). There are studies exploring resilience (7-Dippity, 2003; Johnson, et al., 2007; Palmer, 2008) and studies offering tips for teachers and administrators to help children cope with separation from a parent due to military deployment (Educational Opportunities Directorate of Department of Defense, 2003; Helmick & Hudson, 1997). There are also picture books for children written to help them cope with military deployments (Robertson, 2005; Timperley & Arro, 2005). However, a very limited number of empirical studies exist that explore teacher knowledge concerning military deployments. Furthermore, empirical studies of

online professional development opportunities for teachers in the area of military children and deployment appear meager.

For this study, the objective was to determine whether teacher knowledge was influenced after participating in an online tutorial and if the participants found the military deployment knowledge and the online tutorial to be beneficial for their profession. This study used an online military deployment tutorial created by the researcher. It was administered to DoDEA and public school teachers as an assessment tool to measure teacher knowledge.

According to Smerker and Owens (2003), teachers in DoDEA schools share a deep understanding of military life, including the frequent moving, deployment, and time away from home. What seems less clear is if this is the case for public school teachers. The Department of Defense (DOD) and other agencies have provided more assistance to military families than in previous times of conflict (Helmick & Hudson, 1997; Park, 2011). Part of this attention is devoted to those who teach the military child. As suggested by the following quote from the Military Child Association Director, agencies associated with DoDEA do appear to be aware of the need to involve professional educators who work with military children.

> School personnel need to be educated on issues affecting military students. In addition, be sensitive to their needs. To achieve this goal, schools need tools. Parents need tools too. Military parents constantly seek more resources to assist their children in coping with military life, especially the challenges and stress of frequent deployments. (The National Military Child Association. Director, Government Relations, Moakler, 2008, p. 5)

The following research questions are designed to add to the body of knowledge of military deployment and to explore the possibility of online tutorials as a form of professional development for educators working with military children.

## Research Questions

These research questions were garnered from the empirical body of research which was introduced in Chapter 1 and will be further investigated in Chapter 2.

1. Is there a significant difference in overall teacher knowledge of military deployment given the pretest, tutorial and posttest design?

2. Is there a significant difference in teacher knowledge of military deployment given the pretest, tutorial & posttest design between public and DoDEA teachers?

3. Given the pretest, tutorial and posttest, is there a significant difference in teacher knowledge of the Emotional Stressors for Children and Adults (ESCA), The Deployment Cycle (TDC), The Sociomoral Atmosphere of Children (TSAC), and Intervention Strategies for Teachers (IST)?

4. Did participants gain knowledge in regards to military deployment? Was the Military Deployment Tutorial relevant to their teaching occupations?

5. Did it appear that online tutorials are beneficial as a public service to educate participants and raise awareness of military deployments?

## Background of the Study

"Freedom itself was attacked this morning by a faceless coward. Freedom will be defended!" *(President George W. Bush September 11, 2001).*

On September 20, 2001, George W. Bush introduced a new concept to the world, a concept that has become the battle cry for the twenty-first century, "The Global War On

Terrorism" (GWOT; Porterfield, 2007). To Afghanistan and Iraq, the United States is estimated to have deployed 1,048,884 troops between late 2001 and January 2005 (Benjamin, 2005). After September 11, 2001, the U.S. Army went from having eight percent of its force deployed to having more than 36 percent deployed (Engel, Gallagher, & Lyle, 2006, 2009). Since September 11, 2001, American service members have deployed nearly 3.3 million times to a combat zone. This number reflects the fact that over 2 million individual service members have deployed to Afghanistan or Iraq, with 800,000 deploying multiple times (Sheppard, Malatras, & Israel, 2010; Tan, 2009).

Since September 11, 2001 the average deployment has become significantly longer with an increase in average duration of more than 50% (Engel, et al., 2006). The average length of an Army deployment increased from 6 to 15 months (Engel, et al., 2009). According to Engel et al. (2009), after a soldier completes basic training, the Army Human Resources Command assigns the soldier to an initial unit and as a matter of policy, the soldier is reassigned to a different unit every 3 or 4 years (p. 4). Under current operational conditions, the average Army soldier can expect to spend almost half of his or her four year enlistment period in a deployed status (Engel, et al., 2006). Subsequently, in recent years deployed military personnel are both men and women and many of these are mothers and fathers (Fitzsimons & Krause-Parello, 2009). Over half (55%) of active military members are married and about 43% have children 40% of whom are under the age of 5 years, 32% between the ages of 6 and 11, and 24% between the ages of 12 and 18 (Office of the Deputy Under Secretary of Defense, 2005).

Currently, 900,000 U. S. children have had at least one of their parents deployed since 2001, and currently 234,000 children have one or both parents at war (Park, 2011;

Tan, 2009). These numbers are astounding considering that about 63% of the children are school-age children (Department of Defense, 2008). Moreover, having a primary caretaker deployed to a war zone for an indeterminate period is among the more stressful events a child can experience (Johnson, et al., 2007). Adults in the midst of their own distress are often anxious and uncertain about how to respond to their children's emotional needs and the strain of separation can weigh heavily on both the deployed parent and the caretakers left behind (Chandra, et al., 2010; Jensen, Martin, & Watanabe, 1996; Johnson, et al., 2007). Further, reintegration of an absent parent back into the family often leads to complicated emotions for everyone involved (Johnson, et al., 2007).

Life within many military families is forever changed when a service member deploys to a combat zone. To date, more than 3,240 Americans deployed in support of the GWOT have been killed and over 23,000 have returned from a combat zone with physical wounds and a range of permanent disabilities (e.g., traumatic brain injury). In addition to these physical wounds, as many as "one-fourth of all returning service members are struggling with less visible psychological injuries" (Johnson et al., 2007, p. 9). Again, a greater part of those deployed to Iraq and Afghanistan reported exposure to multiple life-changing stressors, and their wartime experiences often defied their ability to easily reintegrate following deployment. Survival strategies, which are highly adaptive in a combat environment, are often troublesome to civilian life. Interpersonal and family functioning is inevitably affected by combat exposure (Johnson, et al., 2007). This occurs at home but also manifests with the children as they attend school.

Ahead of these conditions, military families deal with issues common to all families, including child care, elder care, education, parenting concerns, and career

choices. However, military families also are subjected to unique stressors, such as repeated relocations that often include international sites, frequent separations of service members from families and subsequent reorganizations of family life during reunions, (Drummet, Coleman, & Cable, 2003). Deployment places a variety of stresses on military personnel. These include emotional and financial stressors (Engel, et al., 2006, 2009). Not surprisingly, for military personnel with children, the welfare of their dependents becomes a common and frequently pressing concern during a deployment. More than 25 percent of military households have school-age children, and between 2002 and 2004, and as of February 2007, 700,000 children of military service members have experienced a parental absence as a result of a military deployment (Engel, et al., 2006, 2009).

The bedrock of the U.S. national security system for more than three decades has been the all-volunteer force. Deployment and the stress that this event places on military members and their families has important implication for the long-term viability of the United States military (Engel, et al., 2009). Military personnel typically spend three years at one military post before being reassigned to another post. Lengthy and recurrent deployments coupled with other features of military service, such as frequent household relocations, are apt to place considerable stress on more than 1.4 million military families and jeopardize our defenses (Lyle, 2006).

Military children and the educators who serve them are in constant flux because the average student population turnover by individual school is 37% (Military Family Resource Center, 2001). Military deployments and job assignments provide an opportunity to estimate the impact of parental absences and household relocations on

children's academic achievement (Lyle, 2006). Today, extended family members as well as mothers or fathers are asked to serve as caregivers for dependent children of deployed servicemen and service women (Fitzsimons & Krause-Parello, 2009). Despite the high mobility rates of students in Department of Defense Schools (DoDS), Smrekar and Owens (2003) maintain that analysis of test scores across multiple assessment systems confirms that students in the Department of Defense schools (DoDS) perform at a high achievement level in reading and writing.

Although DoDS schools achieve high levels in reading and writing, researchers have established that deployment of a family member can negatively impact children and adolescents emotionally, academically, and behaviorally (Abell, 2004; Harrison & Vannest, 2008; Huebner & Mancini, 2008). Lyle (2006) argues that parental absences and household relocations have modest negative effects on children's standardized test scores. Lyle further states that, "Both parental absences and household relocations have the greatest detrimental effect on the test scores of children with single parents, children with mothers in the army, children with lower ability parents, and younger children" (p. 319).

The literature presented in this study informs the reader of various military deployment issues relative to psychological and emotional stressors and how these stressors influence the sociomoral atmosphere of the military child. In addition the research will suggest ways teachers can influence student and family resilience. As an experienced Department of Defense Education Activity (DoDEA) employee and Army veteran, this researcher sees firsthand how the effects of deployment can alter the local community, military families, and student academic achievement. Although the DoDEA

schools consistently rank well above the national average in standardized testing, there is empirical evidence which shows military obligations around the world serve as stressors to student performance.

## Limitations of the Study

Each participant is required to perform a pretest and post test in order to be included in the results. The online tutorial has four domains. Those domains are: Emotional Stressors for Children and Adults (ESCA), The Deployment Cycle (TDC), The Sociomoral Atmosphere of Children (TSAC), and the Intervention Strategies for Teachers (IST). Because the tutorial takes 30–40 minutes to complete, some who begin the process may not complete the intervention. Levels of interest in the subject matter may influence who completes and does not complete the tutorial.

Literature concerning the sociomoral atmosphere of the military child and using online tutorials to distribute knowledge of deployment to teachers and school administrators was limited. The scant empirical research in these areas caused the researcher to draw upon existing theory relative to military culture in an effort to bridge the gap. In addressing this limitation the researcher was reminded of how Carmines and Zeller (1979) caution that without adequate measurement models, research does not yield greater understanding of any particular phenomenon under investigation. In other words, a limitation of this study might be a flawed construct.

The researcher advised participants in the email invitation that the tutorial should not be taken during duty hours. Following the instructions could have limited the number of participants and/or limited the number of tutorial completers.

For this study the researcher selected one DoDEA school system and one public school system with similar demographics. The public school system was also chosen

because it lacked military influence from the community and could be distinguished as a comparison group. This could have been a limitation of the study because educators might consider military issues as unimportant to their work.

## Assumptions

1. It is assumed that due to daily exposure of military culture, teachers in DoDEA school systems will initially have a greater understanding of military deployments than public school teachers.
2. It is assumed that scores on the dependent variable, teacher knowledge of military deployment issues, will be normally distributed in the population for both groups of teachers, i.e. DoDEA and public.
3. It is assumed that scores on the dependent variable, teacher knowledge of military deployment issues, will be normally distributed in the population for each of the four domains:
    - Emotional Stressors for Children and Adults (ESCA)
    - The Deployment Cycle (TDC)
    - The Sociomoral Atmosphere of Children (TSAC)
    - Intervention Strategies for Teachers (IST)
4. It is assumed the sample of public and DoDEA teachers were representative of the larger population (normal distribution and equal variance).

## Definitions and Terms

**Administrator** – All certified or licensed educators holding a valid teacher and/or administrator certification and responsible for personnel management, curriculum

development, and the instructional leadership and supervision students and school faculty.

**CSR** – an acute pathological reaction known as combat stress reaction.

**Department of Defense Educational Activity (DoDEA)** –The system that governs on post schools and educational functions on military installations in the United States and around the world.

**Deployment** – A military deployment is the movement of a military unit, or an individual away from home, to a particular location or as individuals joining another unit to accomplish a specific military mission.

**Deployment Cycle or Phases of Deployment** – The phase of the deployment cycle begins with the debarkation of the mobilized unit and ending when the unit arrives at a demobilization station inside the continental United States. The deployment cycle consist of four phases: Pre-Deployment, Deployment, Post-Deployment, and Reintegration/Reunion Phases.

**Domestic Dependent Elementary and Secondary Schools (DDESS)** – DDESS falls under the umbrella of DODEA and educates military children on military installations located in the continental United States.

**Emotional Cycles of Deployment** – Consisting of seven stages, Stage 1 - Anticipation of Departure, Stage 2 – Detachment and Withdrawal, Stage 3 – Emotional Disorganization, Stage 4 – Recovery and Stabilization, Stage 5 – Anticipation of Return, Stage 6 – Return Adjustment and Renegotiation, Stage 7 – Reintegration and Stabilization. Each deployment stage is characterized by a period and particular

emotional challenges, which must be dealt with and mastered by each of the family members.

**Emotional Stressors in Children and Adults (ESCA)** – A domain that measures administrator and teacher knowledge relative to emotional stressors in children and adults.

**External Reference** – A unique identification code assigned to the pretest and used to match the pretest with its corresponding posttest.

**GWOT** – The Global War on Terrorism.

**Impact Aid** – Impact Aid funding compensates LEAs for the loss of revenues resulting from the tax-exempt status of both Federal property and the personal property of military personnel.

**Intervention Strategies for Teachers (IST)** – A domain that measures administrator and teacher knowledge of intervention strategies relative to military deployment related issues.

**Local Educational Agencies (LEA)** – Such as public school districts.

**OEF** – Operation Enduring Freedom

**OIF** – Operation Iraqi Freedom

**Primary Caregiver** – A primary caregiver is defined as the caretaker responsible for the child at present or when the deployed parent is away.

**Psychosocial** – Relating to characteristics of social and psychological behavior in a child's development.

**PTSD** – A condition resulting from combat stress that crystallizes into a chronic disorder, commonly known as posttraumatic stress disorder.

**Sociomoral Atmosphere** – Sociomoral atmosphere entails our conviction that all interactions between and among children, their primary caregivers, and educators have an impact on not only the child's social and moral experiences, but also the child's development.

**Students at the Center** – Students at the Center is an online resource that provides information on important policies, procedures, and best practices to families, military leaders, and school leaders that are critical to supporting the needs of military families' education.

**Teachers** – All certified or licensed educators holding a valid teacher certification or license and responsible for instructing curriculum or subject content to students.

**The Deployment Cycle (TDC)** – A domain that measures administrator and teacher knowledge relative to the military deployment cycle

**The Purple Heart** – A ribbon awarded to service members for wounds received in action while engaging a hostile adversary.

**The Sociomoral Atmosphere of Children (TSAC)** – A domain that measures administrator and teacher knowledge relative to the sociomoral atmosphere of children

## Summary

This chapter provided an overview of literature in the areas of the military deployment and deployment stressors. The chapter also introduced the concept of teachers as caretakers of this unique population known as military children. The purpose of this exploratory study was to investigate the relationship between an online military deployment tutorial and teacher knowledge related to military deployment. In addition, the researcher wanted to know if teachers would find professional development provided

in an online tutorial to be relevant and useful in expanding their knowledge of military children.

Chapter 2 will provide the conceptual framework pertaining to existing studies regarding the military deployment cycle, the sociomoral atmosphere of the military child, emotional stressors related to deployment and strategies teachers can use as interventions to support the child. Teacher knowledge of deployment related issues and intervention strategies which strengthen resilience are important to students' emotional, psychological, and academic wellbeing.

# CHAPTER 2. REVIEW OF LITERATURE

The review of literature focuses on the history of DoDEA, military children in public schools, deployment cycles and student mobility, teacher-student relationships, school leadership, military culture, sociomoral atmosphere, resilience and intervention strategies. Later in the study, these topics will consolidate to form four distinct domains: Emotional Stressors for Children and Adults domain, (ESCA), The Deployment Cycle domain, (TDC), The Sociomoral Atmosphere of Children (TSAC), and the Intervention Strategies for Teachers (IST). These four domains will be used in the military deployment tutorial as an intervention to measure teacher knowledge relating to military deployment issues.

The conceptual framework is a synthesis of the literature and represents the relationships between the military child and military deployment, emotional stressors, interventions strategies for teachers and child development theories related to sociomoral development (Figure 1).

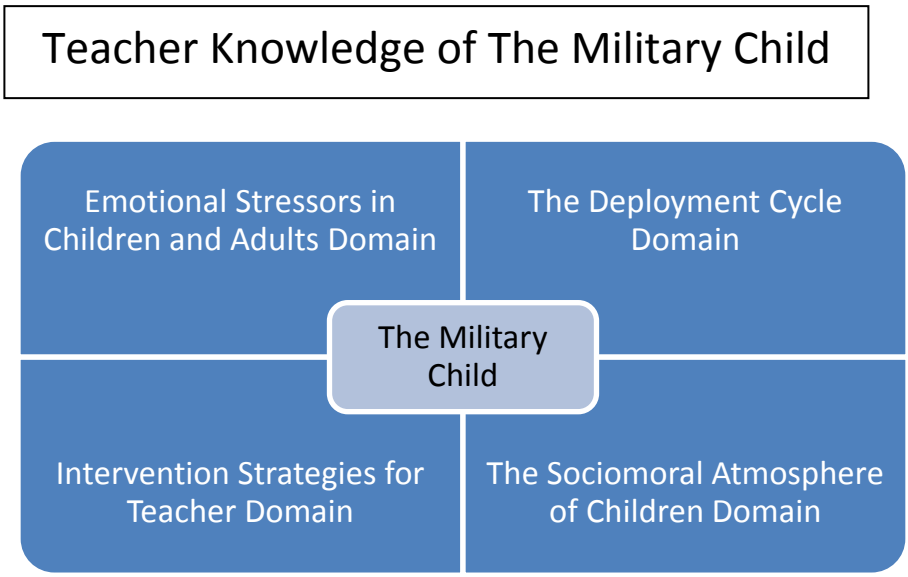


*Figure 1.* The Military Child and Teacher Knowledge

**The U. S. Department of Defense Educational Activity (DoDEA) School System**

The federal government's role in public education has advanced over the past two centuries (Kowalski, 2006). Consequently, the establishment of elementary, middle, and high schools for children of service men and women finds its roots in President Truman's 1949 order eliminating segregated units in the military. An integrated military force could not have its children attending dual-system segregated public schools in the South (Kingston, 2002; Smerkar & Owens, 2003). Since the services were racially integrated after World War II and southern school systems were still segregated it became necessary to create a military school system (Kingston, 2002). The newly formed Department of Defense received a Congressional license to establish its own base schools wherever the Secretary of Defense determined local public schools would provide a segregated educational program (Kingston, 2002; Shaul, 2001). In order to attend schools on

military installations, military personnel had to live on base (Kingston, 2002; Smerkar & Owens, 2003).

The Department of Defense has provided "on post" schools for selected military bases in the United States and abroad since the end of World War II (Engel, et al., 2009; Kingston, 2002). The Department of Defense Education Activity (DoDEA) is the system that governs "on post" schools and educational functions on military installations in the Unites States and around the world (Department of Defense Education Activity, 2009a). As of September 2010, the DoDEA operates 194 schools in 14 districts located in 12 foreign countries, seven states, and 2 U.S. territories, and contains just over 86,000 students from pre-kindergarten to 12$^{th}$ grade (Department of Defense Education Activity, 2010a). Approximately two-thirds of children enrolled in the DoDEA system attend a school located outside the United States and about 45% of the students are from Army households (Engel, et al., 2009).

The center of operations for DoDEA is located in Arlington, Virginia and the Director of DoDEA overseas system operations (Department of Defense Education Activity, 2010a). Three geographic areas divide DoDEA schools. They are Department of Defense Schools-Europe (DoDDS-E), Department of Defense Schools-Pacific (DoDDS-P), Domestic Dependent Elementary and Secondary Schools-Guam (DDESS-G), and the Domestic Dependent Elementary and Secondary Schools (DDESS). An area director manages each area and the areas are further organized into districts and lead by superintendents (Department of Defense Education Activity, 2009a). As time progressed, the Department of Defense systems united under the umbrella Department of

Defense Education Activity (Department of Defense Education Activity, 2009a; Smerkar & Owens, 2003).

The literature gathered thus far describes the historical context of DoDEA and provides the reader with a basic orientation and description of system components, which includes hierarchical leadership. This should assist the reader in gaining a more coherent picture of DoDEA. The remaining literature will address various aspects of student-teacher relationships, school leadership and classroom instruction. For this study, the online military deployment tutorial for DoDEA and public school teachers will be used as an assessment tool to measure teacher knowledge. Since teacher knowledge of deployment and how this influences the military child is the fundamental component of this study, it is important to know how DoDEA became an activity for the Department of Defense. From the very beginning, the idea behind DoDEA was to serve the military child in times of conflict.

## Military Children in Public Schools

Education for military dependent children was derived from two distinct programs. The Department of Defense (DoD) Domestic Dependent Elementary and Secondary Schools (DDESS) provides education for military children living on military installations that are adjacent to communities where the local schools had at one time been deemed unable to provide a "suitable" education (Helmick & Hudson, 1997). The other program balances the DDESS program and supports the education of military dependents in the local public school districts. The U.S. Department of Education manages the second program and provides Federal "Impact Aid" funds to local educational agencies (LEAs) that educate the children of military personnel.

Impact Aid funding compensates LEAs for the loss of revenues resulting from the tax-exempt status of both Federal property and the personal property of military personnel (Helmick & Hudson, 1997). Children who have parents serving in the military and reside off post attend public school systems across the country. Thus, public school systems share the responsibilities for educating military dependent children when a service member deploys to areas outside the continental United States. The federal government, through the Impact Aid program, is obligated to compensate public schools for this loss and other losses of tax revenue (Helmick & Hudson, 1997; Torchbearer, 2001). According to Torchbearer (2001), military installation commanders must work with their state and local officials on behalf of the military families they represent and advocate that their children receive an equal opportunity to excel in all aspects of the education process. Support for these efforts must be evident at local, state and federal levels, to include the Departments of Defense and Education. Congress must fully fund the Department of Education budget, especially Impact Aid, and put in place an automatic funding mechanism (p. 23).

There are more than 600 autonomous local school districts serving military children throughout the country. The general perception that schools located on Army installations are federally operated is not always the case (Helmick & Hudson, 1997; Torchbearer, 2001). Actually, a number of the schools on Army installations belong to local public school districts. For instance, schools located on Fort Belvoir, Virginia, belong to the Fairfax County Public School System (Torchbearer, 2001). Although in some cases, public school districts operate public schools on military installations, military families living both on and off the installation contribute significant revenue to

state and local governments through sales tax on locally purchased goods, but in nearly all cases they create additional financial obligations when they enroll their children in the local schools.

Studies conducted by Helmick and Hudson (1997) reported favorable ratings given by military parents in regards to the quality of education in the LEAs. These ratings were in line with ratings given by parents of public school children. Helmick and Hudson further stated that, "Military parents in these LEA's rated the schools most highly in terms of instructional quality, safety and discipline, and encouragement of parent involvement in their child's learning" (p. v). The study also found relatively low levels of satisfaction with schools' responsiveness to the needs of military students and with parents' voice in decisions regarding their child's educational programs. These findings suggested that public school sites used in the study provided a good general education, but lacked the focus on military families (Helmick & Hudson, 1997).

In addition to parent opinions regarding public schools, the Helmick and Hudson (1997) study also reported concerns raised by installation commanders regarding public schools located in the communities near their bases. First, installation commanders believe the schools are critical to the quality of life of military personnel and their family members. Second, on military installations, children are provided a high quality education in an atmosphere of support and sensitivity not available in the surrounding communities. Third, the DDESS schools welcome children who enroll long after the school year has begun and services are readily available to provide counseling to children of families affected by short-notice military deployments. Thus in the commanders'

view, the security of knowing that their children are well taken care of has a direct impact on the readiness of the troops (Helmick & Hudson, 1997).

A deployed service member cannot afford to be distracted by worries that their child is not receiving a quality education. Service members rely on a successful educational setting that integrates the efforts of families, schools, and a variety of institutions within the community. Many schools and communities understand this philosophy, but developing successful working relationships among stakeholders is often demanding. If public school teachers understood the adjustment factors and the unique needs of military children, it would help in times of crisis (Harrison & Vannest, 2008).

### Teacher-Student Relationship, School Culture, and Leadership

Principals, teachers, and counselors in DoDEA schools share a deep understanding of military life, including the frequent moving, deployment, and time away from home (Smerkar & Owens, 2003). Similar to the military families they serve, teachers and administrators may be required to sign a mobility agreement. A mobility agreement is required for various permanent educators to meet the needs of DoDEA school management (Department of Defense Educational Activity, 2010). DoDEA employees serve the needs of military families. Teachers and administrators must be able to adapt to the changes in the military mission worldwide. Occasionally, some schools are closed or reduced in size. When this happens, it is necessary to reassign the affected employees to ensure that they are able to continue their federal employment (DoDEA, 2010).

Common indicators of teacher quality point to a strong teaching force in DoDEA schools (Smerkar & Owens, 2003). Standardization allows DoDEA schools to quickly

process students in transit from one location to another (Titus, 2007). When students arrive from other DoDEA schools, their teachers know what content they have covered (Delisio, 2002; Titus, 2007). In an attempt to create a world-class educational system, DoDEA has developed rigorous curriculum standards which specify what students should know and be able to do (Titus, 2007). DoDEA monitors student progress using standardized assessments. On the Terra Nova Achievement Test, a norm-referenced test for students in grades 3 through 11, students in DoDEA schools score well above the national average every year, in every subject area, and at every grade level tested (Titus, 2007). An analysis by Smerkar and Owens (2003) of testing measures used by DoDEA schools yielded "compelling evidence of the benefits of linking assessment with strategic intervention for school improvement and system-wide reform against the backdrop of high student mobility" (p. 5). DoDEA assessments link instructional goals with accountability systems. The assessments are also supported by professional development programs (Titus, 2007).

Several factors are attributed to the high achievement levels of mobile students in DoDEA schools (Smerkar & Owens, 2003). Teachers tend to have many years of teaching experience, high levels of education, and are fully qualified to teach their subjects. Teachers in DoDEA schools create a foundation of stability amidst an environment of student mobility because they are career teachers who tend to stay in one school (Titus, 2007). In DoDEA schools, a licensed teacher fills nearly every position, and most teachers have extensive work experience and hold graduate degrees (Smerkar & Owens, 2003; Titus, 2007). For example, 73% of the teaching force in DoDEA has over 10 years of experience, while only 10% of teachers have fewer than three years of

experience. Sixty-four percent hold master's degrees and 2.5% have doctorates (Smerkar & Owens, 2003). Continuity and seamless transition between schools has been institutionalized for students in DoDEA schools through strategic planning, centralized direction setting, and local decision making (Titus, 2007).

According to Smrekar and Owen (2003), high expectations are the norm in DoDEA schools and are manifested in the use of elevated academic standards, teachers' sense of personal accountability, and their proactive approach to educating a highly transit student population without ability grouping. DoDEA staff proudly state that they hold some of the highest national standards. With a normal three-year tour of duty for military parents, there is a sense of urgency among teachers who understand that their time with each individual student is limited. Eight factors identified that account for high academic achievement by students in DoDEA schools are:

1. Centralized direction setting with local decision-making.
2. Policy coherence and regular data flow regarding instructional goals, assessments, accountability, and professional training and development.
3. Sufficient financial resources linked to instructionally relevant strategic goals.
4. Staff development that is job-embedded, intensive, sustained over time, relevant to school improvement goals, and linked to student performance.
5. Small school size, conducive to trust, communication, and sense of community.
6. Academic focus and high expectations for all students.
7. Continuity of care for children in high quality preschools and afterschool programs.

8. A corporate commitment to public education that is material and symbolic and that is visible and responsive to parents within the school community. (Smrekar, Gutheire, Owens, & Sims, 2001, p. 10)

Students in DoDEA schools confirm that teachers hold high expectations for them (Smerkar & Owens, 2003).

In the DoDEA system, the small school size contributes to greater familiarity and personal knowledge of students, their instructional needs and strengths, and their unique family situations. This means that teachers and principals are keenly aware when parents go "down range" for training – an activity that may take a mother or father away from home for several weeks and result in added stress for the parent or "guardian" who remains at home (p. 173). School personnel are prepared for the difficulty such separation brings to young students. Special care and attention to these students' needs are part of "teaching" in DoDEA (p. 173). Military commanders noted that military unit-sponsored Family Readiness Groups and individually developed Family Care Plans function as a back-up care system for children when military personnel are deployed (Smerkar & Owens, 2003).

DoDEA schools are models of integration with high academic achievement for a mobile student population. Nevertheless, DoDEA administrators and teachers enjoy some advantages, which may contribute to their success. For example, schools are small with state-of-the-art computer labs. At least one parent in each military family has a high school diploma and a full-time job. Since DoDEA schools around the world share a common curriculum, students who transfer within the DoDEA system do not have to adjust to a new course load. Military parents report that, even in the most tumultuous

times, DoDEA schools give their children a sense of stability (Schouten, 2004; Titus, 2007).

For DoDEA, curriculum and instruction are the important elements for obtaining high student achievement (DoDEA Informational Center Program Guide, 2005). DoDEA conducts comprehensive reviews of curricular programs and standards that ensure system-wide alignment. Coherent academic standards are critical in guiding school level improvement plans, professional development and program evaluations. Well-articulated standards serve as the basis for gathering data about how DoDEA assess student and school progress. Content standards require ongoing review and periodic updates. Recently, curriculum specialists together with classroom teachers reviewed and made recommended updates for all DoDEA core curriculum standards. The updated standards, for the most part, are the same with regard to breadth and depth; but the revisions reflect more clarity and specificity. The updated standards are easier to read, include examples of what the standards should "look like," and give teachers a clearer picture of the grade level and content expectations (Department of Defense Education Activities, 2009b).

Although military deployments bring about additional stressors for the military child, analysis of test scores across multiple assessment system confirms that students in the Department of Defense schools perform at a high achievement level in reading and writing (Smerkar & Owens, 2003). According to the National Assessment of Educational Progress (NAEP), a national ongoing assessment of student performance, the average academic performance of all students in DoDEA schools is high, and the performance of African American and Hispanic students is among the highest in the nation (Bridglall & Gordon, 2003). Through comparisons by race and ethnicity between DoDEA subgroups

and national subgroups cannot be made with Terra Nova scores, results showed a high overall performance for students in DoDEA schools and for African American and Hispanic students in particular (Smrekar, et al., 2001). DoDEA's score gaps are consistently below 20 points on the test's 500-point scale (Smrekar, et al., 2001). The national average gap across grade levels four and eight was 27.5 points. DoDEA's schools continue to have some of the smallest achievement gaps between Black and White students of all ages according to results recently released in a report from the National Center for Education Statistics (NCES) (Smrekar, et al., 2001).

DoDEA's use of effective educational systems utilizes tests that are consistent with content standards (Smrekar, et al., 2001). According to Smrekar and Owens (2003), analysis of DoDEA measures provides compelling evidence of the benefits of linking assessment with strategic interventions for school improvement and system wide reform against the backdrop of high student mobility.

Research provides evidence that second only to family, school is the most important stabilizing force in the lives of young people (Blum, 2004). Children of deployed parents often have to cope with emotional stressors while experiencing frequent moves due to the nature of their parent's job status within the military. For children who often feel "like the new kid on the block," having someone to sit with at lunch, a teacher who helps them catch up on class material they missed in transfer or a coach who finds a way to incorporate them into a team even after the season begins is vital to their success (Blum, 2004).

## Sociomoral Atmosphere of the Military Child

An important element of this study was examining teacher knowledge of the sociomoral atmosphere of the military child. Why is this information important to know and how do military deployments influence the sociomoral atmosphere of military dependent students? Sociomoral atmosphere entails our conviction that all interactions between and among children, their primary caregivers, and educators have an impact on the child's social and moral experiences and the child's development (DeVries & Zan, 1994). A primary caregiver is defined as the caretaker responsible for the child or when the deployed parent is away (Chandra, et al., 2010). One might interpret moral experience and development as moral behaviors acceptable to society. In contrast, DeVries and Zan use the phrase "Moral Children," meaning children grappling with issues that are a natural part of their lives (p. 28). Accordingly, the moral child worries about aggression, fair use and equal participation (DeVries & Zan, 1994).

Considering the evidences in the literature, children develop many ideas that are not taught to them (DeVries, 2002). In the atmosphere of the school and classroom, 90% of what children receive from their school experience comes from the hidden curriculum (Giroux & Purpel, 1983). When we consider the fact that every human being learns from experience, and when we reflect on the sizable amount of time students spend outside of school, it is obvious that a great deal of learning transpires in nonschool organizations, mass media, peer groups, homes and families, and vocational settings (Schubert, 1986). Dreeben's (1968) sociological study of schooling, *On What Is Learned at School*, demonstrated the societal contexts of the factory, military, and church influences on the school. These institutions make their way into school organizations in subtle but

pronounced ways and the school becomes a mirror of society. For that reason, the school atmosphere can foster or impede the development of the classroom's sociomoral atmosphere and influence the child's development (DeVries & Zan, 1994).

Through daily interactions, it is the adults who determine the nature of the sociomoral atmosphere in which the young child lives (DeVries & Zan, 1994). Consequently, the total months of parental deployment in previous years were strongly related to the number of challenges that children faced when the caregiver was away and returned (Chandra, et al., 2010). Therefore, it is highly likely that military deployments might influence the sociomoral atmosphere of military dependent students.

The military serves as the cultural lifestyle in which the child learns. It is the environment from which the child tries to make since of the world around them. Teacher knowledge of this important ingredient will help to strengthen their understanding of the child's social and moral classroom behaviors. Existing literature of the military culture and its link to the sociomoral atmosphere of children is very limited. In light of this fact, the researcher drew from existing theories relative to military culture and the sociomoral atmosphere in an effort to bridge the gap that exists in the literature.

The military child's sociomoral atmosphere is made up of the countless adult actions toward and reactions to the child that form the adult-child relationship (DeVries & Zan, 1994). How is this theory associated with military culture? Foremost, military life is characterized by mobility and an emphasis on mission readiness (Savitsky, Illingworth, & DuLaney, 2009). The expectation is for service members to do their job at any time, and in any location. Military families are charged with the difficult task of balancing military demands with family needs, a process that amplifies family stress

when a service member is deployed to a dangerous area (Savitsky, et al., 2009). Deployments place extra stress on children no matter how expert spouses are at managing separation. In children, the stress can manifest in behavioral changes. Having a parent deployed makes more stress for the remaining parent. Deployment tends to be even more negative for active duty single parents and dual-career military families. The children in such families are likely to have their routines and living circumstances turned upside down. These families usually depend on a network of friends for support and temporary homes for the school-age children (Keegan, Hyle, & Sanders, 2004).

Second, DoDEA schools are nested within a tight knit community life on U.S. military installations. Safety, support and cohesion distinguish the military community (Smerkar & Owens, 2003). The strong sense of school community begins in the base neighborhoods that cluster all military families in a cohesive network of discipline, routine, accountability, and commitment (Smerkar & Owens). These on base military neighborhoods are a contemporary version of the old mill towns. Military work, family, commerce, and schooling embrace all members in a self-contained social structure. Economic stability is anchored to the fact that at least one parent is employed and housing and healthcare services are provided to all members (Smerkar & Owens, 2003).

DeVreis and Zan (1994) argued that children organize the perceived attitudes of others toward the self and then construct his or her personality based on these perceptions. DeVreis and Zan went further and described how Piaget (1954/1981) described the construction of stable schemes of social reaction. He referred to a growing consistency in reaction to others (e.g., parents, teachers, peers, etc.), irrespective of whom the others are. If the child actively takes the attitude of the other toward the self in order

to understand his or her self, it is reasonable to conclude that the nature of the others' attitudes are crucial to the nature of the child's constructed self (p. 45).

Considering the facts presented thus far, one might assert that the sociomoral atmosphere of military children extends beyond what children learn in the classrooms. It is embedded in all aspects of their daily lives. This includes their family, their culture, their school, and the neighborhood where they live. Thus, knowledge of the child's sociomoral atmosphere is a very important component of teacher knowledge. Furthermore, the sociomoral atmosphere of military children is different and requires additional attention from teachers and school administrators.

## Military Deployments and Student Mobility

Military deployment can be a complex and overwhelming process for military service members and their families. For example, the Army relocates families in order to keep them close to their soldiers. Even with this, deployments and other kinds of physical separation are a common factor within Army culture (Booth, et al., 2007). Tours of separation for military assignments can vary from a few days to more than a year. The separation is even more stressful if it entails deployment to a conflict zone because of the increased possibility that the soldier may be injured or killed (Booth, et al., 2007).

How does it all begin? Occasionally, deployments may begin with relatively little advanced notice and can extend well beyond their original planned duration if the military situation warrants. Furthermore, deployments are often fraught with uncertainty for family members. For example, Booth, et al. (2007) states that the location of the operation may need to be kept secret or the date of the unit's return may be unable to be specified. The stress coupled with extended separations, increased workloads, shifting

demands, and unstable deployment schedules can be difficult to manage under any circumstances.

All branches of the military, i.e. Army, Navy, Air Force, Maries, Coast Guard, National Guard, employ people whose children face potential school moves because of their parent's career. The fact that many of our service members are deployed to combat zones where their lives are threatened makes the situation even more tenuous (Papp, Stronge, & Hindman, 2003). Whether mom or dad is on active duty or in the reserves, enlisted or on officer, short-term or career military, a parent's professional path and the geopolitical landscape impact these families (Papp, et al., 2003). For example, some military units take pride in being able to send a battalion of soldiers anywhere in the world within 24 hours. A notice or orders for deployment can come months in advance or in only a few hours (Pisano, 2008). Deployments for individual service members used to occur approximately every 20 months. With Iraq and Afghanistan it has become common for the time between deployments to be only 8 months (Pisano, 2008). No matter how much time the family spends together prior to deployment, the stress on service members and their families can be tremendous. During this period, it is common for family members to feel anger, sadness, fear, confusion, and nervousness as well as pride (Pisano, 2008).

Interestingly, Engel, et al. (2009) stated that the small body of existing research on work-related absences has focused disproportionately on military populations, mainly because of the unique nature of military service with its intermittent deployments. Pisano (1992) studied the effects of military deployments to the Gulf War in 1990 and found small adverse affects in reading scores for 158 sixth grade girls. Angrist and Johnson

(2000) found that absences due to Gulf War deployments impacted marital dissolution and spousal labor supply but did not affect child disability rates. Using deployments to the Balkans in the late-l990s, Lyle (2006) found modest adverse effects in math scores for approximately 13,000 military children living in Texas.

Engel et al. (2009) offered the most complete picture to date of how deployments are affecting the academic achievement of the hundreds of thousands of children whose parents serve in the U. S. Military. Although there is a significant amount of interest in how well children manage family disruptions, research on the closely related question of how work-related parental absences affect children is relatively scarce (Engel, et al., 2009). Engel et al. stated that theory provides little firm guidance on the expected direction of the effect. However, this study presents literature addressing emotional stressors to include the sociomoral atmosphere of children during military deployments along with information for educators supporting families during military deployments.

Moelker, Andres and Poot (2006) produced literature in social support arrangements for military families. A parent's absence could disrupt a child's learning by reducing general parental time with children and disrupting parental roles within the household. In the Engel et al. (2009) study, it was found that parental absence in some cases could lead to improved academic outcomes if the child develops a greater sense of responsibility or if the parental absence is correlated with higher household income. The researchers further stated that this question appears to lend itself more readily to empirical analysis.

**Deployment Cycles and Emotional Phases of Deployment**

Research concerning military deployment issues revealed a number of existing theories related to deployment phases and deployment cycles. For example, there is the Three Phases of Deployment (Booth, et al., 2007; DoDEA, 2010), where the researchers address deployment issues in the context of the U.S. Army. Another theory put forth by the Department of Defense is known as the Deployment Cycle or Phases of Deployment. This deployment theory consisted of four phases: Pre-Deployment, Deployment, Post-Deployment, and Reintegration/Reunion phases (Department of Defense, 2008a; Huebner & Mancini, 2005).

Additionally there is The Emotional Cycle of Deployment which consisted of five stages (Pincus, House, Christensen, & Adler, 2006). Here, the researcher places emphasis on psychological and emotional stressors of military family and deployment issues. Finally there is New Emotional Cycles of Deployment consisting of seven stages (Morse, 2006). Morse considers this to be an extended version of the five emotional cycles of deployment. With the new emotional cycles of deployment, the researcher lends credence to the fact that multiple deployments such as five and six tours of deployments or the change in the timing of the various stages and nature of the deployments can cause increased turmoil and stress for military families (Morse).

This study will use the literature by the Department of Defense concerning the Deployment Cycle and the Emotional Cycles of Deployment. The Deployment Cycle covers all branches of the military services and is considered to be a continuous process. It advances through four phases which begin and end with regular military life at home (Department of Defense, United States of America, 2008a). The Emotional Cycles of

Deployment explains how individuals move through similar emotional stages when trying to cope with a deployment. Previous emotional cycles of deployment may have allowed for a period between deployments of 18 months to 2 years. Some military families are now facing another deployment of the service member within 9 to 12 months of the service member's return (Morse, 2006).

Pincus, House, Christenson, and Adler (2007) described how children with deployed military service parents experience an emotional cycle through the five states of deployment: pre-deployment, deployment, sustainment, redeployment, and post-deployment. Some of the military services describe five stages of the emotional cycles of deployment while others describe seven stages and the changes in behaviors and emotions during the stages are similar (Morse, 2006). Each deployment stage is characterized by a time frame and particular emotional challenges which must be dealt with and mastered by each of the family members (Fitzsimons & Krause-Parello, 2009; Pincus, et al., 2007). Although the actual stages have not changed, the change in the timing of the various stages and nature of the deployments can cause increased turmoil and stress for military families (Morse, 2006).

Failure of the school community and family to identify and help the child cope with these emotional needs in the school setting can lead to conflict and risk of poor educational outcomes (Fitzsimons & Krause-Parello, 2009). Providing information early about what to expect from deployment issues can go a long way towards "normalizing" and coping positively with the deployment. Understanding the seven emotional stages of deployment can help minimize the need for crisis intervention and mental health counseling (Fitzsimons & Krause-Parello; Pincus, et al.; Morse, 2006), and provide

administrators and teachers with additional knowledge and understanding when observing emotions in children relative the emotional cycles of deployment.

**Stage 1 – Anticipation of Departure (Pre-deployment)**

The pre-deployment stage varies and begins with orders for deployment. Families may experience stress that may affect the activities of daily living for both the parents and children. This stress can increase the child's fears that parents or caregivers are not well equipped to care for them or that the deployed parent may not return home safely. In response, children may display symptoms of ineffective coping such as an increase in crying, temper tantrums, and other maladaptive behaviors (Fitzsimons & Krause-Parello, 2009; Pincus, et al., 2007). In the new emotional cycles of deployment, Stage 1 may begin again before a couple or family has even had time to renegotiate a shared vision of who they are after changes from the last deployment (Morse, 2006).

**Stage 2 – Detachment and Withdrawal (Deployment)**

The deployment stage occurs from the time of actual deployment through the first month away (Fitzsimons & Krause-Parello, 2009). Children likely receive less contact with at least one parent, and the remaining parent may be relatively impaired during this period of heightened stress (Palmer, 2008). This stage resembles a mixture of emotions for both caregivers and children. Some feel angry, sad, numb, abandoned, and alone. Others may experience alteration in sleeping patterns due to anxiety and ineffective coping measures. The child may also have a sudden change in appetite (Palmer; Pincus, et al., 2007). In addition, children are responsive to parental stress (Palmer; Pfefferbaum, 1997) and mirror how parents respond in stressful situations (Fletcher, 1996; Palmer). Research suggests that military children do feel the effects of war and increasing levels of

deployment (Costello, Phelps, & F., 1994; Murray, 2002; Palmer, 2008). Findings relative to children suggest they are at higher risk for developing internalized problems (Kelley, et al., 2001; Medway, Davis, Cafferty, Chappell, & O'Hearn, 1995), including depression (Jensen, et al., 1996), anxiety (Palmer, 2008), increased child and parent co-sleeping (Forbes, Folen, & Weiss, 1992; Palmer), and academic and aggressive/ disciplinary problems (Rosen, Teitelbaum, & Westhuis, 1993; Schwab, et al., 1995).

Not all studies have found clear evidence of impairment in overall academic functioning of children with deployed parents relative to those with non-deployed parents (Pisano, 1993). Parental absence does appear to take a toll, though, on child psychosocial outcomes for military families (2009). Palmer also suggests that further research in this area may help clarify issues of ambiguous findings and the pathways leading to different child outcomes. In the new emotional cycles of deployment, as this stage happens more often and more frequently, marital problems may escalate (Morse, 2006). When a husband or wife must repeatedly create emotional "distance," they may gradually shut down their emotions (Morse, 2006).

**Stage 3 – Emotional Disorganization**

With back-to-back or reoccurring deployments, one might think that this stage of adjusting to new responsibilities and being alone would get easier. Military spouses may be familiar with the routine yet they may also experience "burn-out" and fatigue from the last deployment and thus feel overwhelmed when the new deployment comes (Morse, 2006).

**Stage 4 – Recovery and Stabilization (Sustainment)**

Under the recovery and stabilization, spouses realize they are fundamentally resilient and able to cope with the deployment. They develop increased confidence and a positive outlook (Morse, 2006). With back to back deployments, spouses may find it hard to muster the emotional strength required, but many resources are available to provide needed support (Morse).

The sustainment stage occurs during the first month of deployment through the fifth month of deployment. This is where new routines and sources of supportive networks are developing. Stress can cause changes and alteration in a child's behavior. Changes and alterations in behavior include a change in academic performance, interaction with peers, and somatic complaints.

The reaction of children to extended parental deployment is highly individualized due to the stage of psychosocial development (Palmer, 2008; Pincus et al., 2007). For instance, caregivers with infants ranging in age up to one year will take on symptoms of the caregiver. If the caregiver becomes significantly depressed then the infant will be at risk for apathy, refusal to eat and even weight loss (Pincus). Toddlers ranging from age one to three will generally take their cue from the primary caregiver. If the "non-deploying" parent is coping well, the child will tend to do well. The converse is also true. If the primary caregiver is not coping well, then toddlers may become sullen, tearful, throw tantrums or develop sleep disturbance. They will usually respond to increased attention, hugs and holding hands (Pincus et al., 2007). Preschoolers ranging in age from three to six may regress in their skills (difficulty with potty training, "baby talk," thumb sucking, refusal to sleep alone) and seem more "clingy" (Pincus et al., 2007). They may

be irritable, depressed, aggressive, prone to somatic complaints and have fears about parents or others leaving. Caregivers will need to reassure them with extra attention and physical closeness such as hugs and holding hands (Pincus et al.).

School age children ranging in ages six to twelve may whine, complain, become aggressive or otherwise "act out" their feelings. They may focus on the soldier-parent missing a key event, for example: "Will mom or dad be home for my birthday?" Depressive symptoms may include sleep disturbance, loss of interest in school, eating or even playing with their friends (Pincus et al., 2007). Teenagers ranging from ages thirteen to eighteen may be irritable, rebellious, fight or participate in other attention-getting behavior. They may show a lack of interest in school, peers and school activities. In addition, they are at greater risk for promiscuity, alcohol and drug use. Although they may deny problems and worries, it is extremely important for caregivers to stay engaged and be available to talk out their concerns. Sports and social activities should be encouraged to give normal structure to their life. Likewise, additional responsibility in the family, commensurate with their emotional maturity, will make them feel important and needed (Pincus, et al.).

**Stage 5 – Anticipation of Return (Redeployment)**

The redeployment stage occurs the month before the scheduled deployed military personnel arrives home. There may be intense waves of emotion in anticipation of the homecoming for the caregivers and children (Pincus, et al., 2007). Emotions may include excitement, a burst of energy, and difficulty making decisions (Fitzsimons & Krause-Parello, 2009). Similarly, the new stage is generally described as a happy and hectic time spent preparing for the return of the service member. Spouses, children, and parents of

the service member need to talk about realistic plans and expectations for the return and reunion (Morse, 2006).

**Stage 6 – Return Adjustment and Renegotiation: Post-deployment**

This stage begins when the service member returns to their home base (Pincus, et al., 2007). Couples and families must reset their expectations and renegotiate their roles during this stage. Family members need to prepare themselves to deal with the effects of combat stress on the returning service member. Such stress and trauma can be difficult to deal with (Morse, 2006). Troops with combat stress are often irritable, guarded, and want to be alone. Some may use increased alcohol or drugs in a failed attempt to "numb" the emotional pain they are experiencing (Morse).

The parent-child reunion can be difficult. Depending on the child's stage of psychosocial development, the reaction to the homecoming can vary. It may be difficult for children to obey and respond to discipline from the returning military parent. Children may also feel frightened of their parent's homecoming due to changes in family routines or expectations. During this period, children need time to adjust to the parent's presence in the family to ensure a successful reunion (Fitzsimons & Krause-Parello, 2009; Pincus, et al. 2007). Lack of understanding and disagreement over disciplining children has been reported to result in conflict and marital difficulty upon reunion (Bey & Lange, 1974; Palmer, 2008; Pearlman, 1970). Children in preschool ranging in ages from three to six may feel guilty and scared over the separation. School age children from ages six to twelve may want a lot of attention and teenagers from age thirteen to eighteen may be moody and may not appear to care. In addition, children are often loyal to the parent that remains behind.

### Stage 7 – Reintegration and Stabilization

This stage can take up to 6 months for couples and families to normalize their relationships (Morse, 2006). As in Stage 6, the presence of combat stress can severely disrupt the stabilization process. Reintegration and stabilization can introduce more roadblocks when a family must make a Permanent Change of Station (PCS) move immediately upon the return of the service member. Back-to-back deployments create stress as families stabilize only to begin Stage 1 all over again (Morse, 2006). Knowledge of the deployment stages will enable teachers to observe students' symptoms so that teachers can adjust their instruction and classroom management styles in order to mitigate deployment stressors that the child may be experiencing.

## Student Mobility

Studies regarding the resilience of military families yield conflicting reports. For example, some studies suggest that more frequent or routine relocations and deployments may result in increased family coping (Graham-Weber, 2001; Kelley, 1994; Palmer, 2008) and families with relatively more frequent relocations have been found to have fewer adolescent behavior problems and improved parental perceptions of relocating (Weber & Weber, 2005). Thus, the common perception of frequent relocations being detrimental may be somewhat of a false impression (Leitzel, Charlton, & Jeffreys, 1997; Marchant & Medway, 1987; Palmer, 2008).

Nonetheless, Drummet, et al. (2003) argue that Americans in general are known to be frequent movers, yet individuals in the military and military families move more frequently (p. 280). As stated in the Association of the United States Army, Torchbearer (2001), "Military children move every two to six years and move through an average of

six different school districts between kindergarten and high school graduation" (p. 4). In addition to attending Department of Defense schools or civilian schools, they also attend public, private, charter and some students are home-schooled (Torchbearer, 2001). Given that military families relocate frequently, military children regularly have to cope with new school districts, each having its own policies for course curriculum and grading. When transitions associated with student mobility are combined with higher operations tempo and more frequent deployments, and the resulting increase in family separations, it is no wonder the military child can experience gaps in his or her education (Torchbearer, 2001). Children of today's mobile military families often miss out on the continuity and stability of educational opportunities offered to students who remain in one state and one school system (Torchbearer, 2001).

International moves are four times higher for military families than the general U.S. population, and domestic moves are more likely to involve longer distances than nonmilitary families (Pittman & Bowen, 1994). The continuous need to reorganize daily life has consequences for all members of the family. For example, children and adolescents in military families are believed to experience high levels of psychopathology, i.e. military family syndrome (Drummet, et al., 2003; Jensen, 1999; Marchant & Medway, 1987). The effect of geographic mobility is largely understudied in military children, problems related to relocation are probably time limited, and research does not support evidence of a military family syndrome (Drummet, et al., 2003; Jensen, 1999).

Some research indicates that military children are less affected by relocation than nonmilitary children because the military provides a structured environment that includes

job security, standard school curriculum in base schools, and comparable base housing (Drummet, et al.; Marchant & Medway, 1987). In contrast, other researchers discovered that relocation can have positive effects on children's academic achievement (Drummet et al.). For example, some children use a move as an opportunity to change their behavior. They become more active in their educational environments, leading to greater school achievement (Marchant & Medway, 1987).

While the connection between relocation and lowered academic success have yet to be completely disproved (Jensen, et al., 1995), the evidence indicates that relocation can enhance academic performance if the new environment provides a better educational system or offers more valuable connections with teachers, coaches, and others. Nonetheless, practitioners often continue to believe in the military family syndrome (Jensen, et al.), leading many to stigmatize children in military families as inherently prone to behavior problems.

The stress of relocation might be adequately dealt with if that were the only stressor facing military families. However, relocation usually consists of an aggregate of stressors, and the pileup of stressors can put military families at risk (Black, 1993). This is another reason why teacher knowledge of deployment issues is critical for enhancing the support of military child and military families.

## The Effects of Deployment

### Emotions and Stressors

According to DeVries (2004), Jean Piaget conducted studies which showed qualitative changes over time in children's mental development (p. 2). DeVries further stated that with clever experiments, Piaget discovered that the reasoning of children

contains many ideas that were never taught to them (DeVries, 2004). Piaget indicated how affective, social and moral aspects fit into his general theory-specifically topics such as self-esteem, moral feelings, personality, idealism, and schemes of social interaction (DeVries, 2004; Piaget, 1954/1981). Pairing these theories alongside of what we know now about military deployment, it becomes clear as to how several youth outcomes, including depression, behavioral problems, and poor academic performance, can effect emotions and reflect the child's sociomoral atmosphere. Boys, for example, appear to suffer more effects of family disruption than girls (Jensen, et al., 1996; Lincoln, Swift, & Shorteno-Fraser, 2008).

School-age children are often aware of the threats associated with war and the potential impact on a loved one's safety. In addition to emotional dysregulation, worry and sleep difficulties, children at this age are prone to poor attention spans and subsequent difficulties in school (Lincoln, et al., 2008; Murray, 2002). Adolescents may be angry and aloof, act out, or lose interest in their usual activities (Stafford & Grady, 2003).

This research also demonstrates the importance of influence regarding the mental health of the caregiver or at home parent in determining child adjustment (Jensen, et al., 1996). In particular, positive relationships with parents and better overall family adjustment are associated with the psychological well-being of military children (Lincoln, et al., 2008). The experiences relating to military life help children make sense of the world in which they live. The literature presented by Huebner and Mancini (2008) suggested that families experience the impact of deployment in various ways. They explain how several factors influence the effect of deployment on families such as

relationships, the age, sex and maturity of children, the extent of danger to which the military member is exposed and how the remaining spouse deals with the absences

Research conducted with military families also demonstrates that the mental health of the at-home parent is very influential in determining child adjustment (Huebner & Powell, 2007). Devries and Zan (1994) explain how a child's experience of the schools sociomoral atmosphere can enhance or impede the development of constructivist classroom atmosphere, and individual teacher's experience of the school atmosphere can support or negate his or her efforts to establish a constructivist sociomoral atmosphere (p. 290). One can argue that parents, and how they cope with military deployment issues, can also enhance or impede the development of a child's sociomoral atmosphere. Nonetheless, in a school environment, teachers play a key role in the development of a child's sociomoral atmosphere.

**The Effects of Deployment Stressors on Children and Families**

Studies that have explored parental traumatic experience impact on children have identified these youth as at high risk for developing psychiatric disorders or other behavioral and emotional problems (Cozza, Chun, & Polo, 2005; Dowdney, 2000). Empirical studies are urgently needed to broaden our understanding of the stressors of combat and deployment, as well as the military cultural contexts within which operational stress is experienced (Nash, 2007). Within the context of this study, the researcher found that *Combat Stress Injury: Theory, Research, and Management,* by Figley and Nash (2007), provided the most compelling descriptions of stressor manifestations relative to combat and deployments.

This segment probed the literature for an understanding of deployment related stressors in children. Thus, the literature draws parities that show stressors manifesting in the lives of military personnel and how these manifestations might influence the emotional, social, and academic behaviors of military dependent children.

Karl Von Clausewitz (1832/1982) gave his explanation of war in his book, *On War,* where he explains that, "Everything in war is very simple, but the simplest thing is difficult. The difficulties accumulated and end by producing a kind of friction that is inconceivable unless one has experienced war" (p. 160). Soldiers who have lost a buddy in a war zone have little chance to experience the normal but intense emotions that attend the loss, or to do the cognitive work necessary to make sense out of it and accept it (Nash, 2007). While deployed and still subject to the very same dangers that just took the life of a close friend, the soldier holds back the tendency to grieve. Instead, they must remain at least partially numb to their losses and store up their grief to be neither set aside nor drained until the war is over and it has become safe to work through the losses (Nash, 2007).

Meanwhile, the family of the deployed military member knows their loved one is in harm's way, but at any one time they do not know how close to conflict they may be, especially in an era when terrorist insurgents are the enemy (Huebner, Mancini, Wilcox, Grass, & Crass, 2007). Youth are well aware of the possibility of losing a parent permanently through death or a parent returning home maimed or incapacitated (Huebner, et al.; Huebner & Mancini, 2005). Likewise, some traumatic events, such as the sudden loss of a parent or sibling, can dramatically impact the caring environment surrounding the child, and can potentially result in a complex mixture of trauma and grief

with both Post Traumatic Syndrome (PTSD) and complicated grief reactions (Dyregrov, 1993).

In 2005, over 1400 service members lost their lives in operation Iraqi Freedom. This resulted in over 900 children losing their parents (Cozza, et al., 2005). The death toll among American, Iraqi, and Afghan troops is enormously high. As of September 5, 2008, there were 4,152 confirmed U.S. deaths in Operation Iraqi Freedom (OIF) and 582 deaths in Operation Enduring Freedom, Afghanistan (OEF) (Papa, Neria, & Litz, 2008). By the end of 2008, the number of Americans serving in OEF and OIF climbed to approximately 1.7 million. Combat often substantially affects soldiers' minds. An acute pathological reaction known as combat stress reaction (CSR) takes on many forms and is frequently undergoing change in nature. Furthermore, CSR is more strongly predicted by war exposure than by prewar life events (Solomon, Zur-Noah, Horesh, Zerach, & Keinan, 2008). Perhaps extreme stress of war overshadows possible predisposing factors, including prior life events (Hockins, 1970; Solomon, et al., 2008). In some instances, this initial acute reaction crystallizes into a chronic disorder, commonly known as posttraumatic stress disorder (PTSD) (Solomon, 1993; Solomon, et al., 2008). Childhood exposure to family violence is also connected to CSR and PTSD (Lewis, et al., 2006; Solomon, et al., 2008).

Studies present sound evidence of the negative effects of PTSD on children. For instance, over 40% of the veterans with partners stated they have felt like a "guest" in their home. Those with depression were more likely to have these feelings more frequently. Furthermore, approximately 25% of veterans reported that their children were acting afraid of them or did not act warmly toward them. Veterans with PTSD were

more likely to have this experience (Sayers, Farrow, Ross, & Oslin, 2009). Analysis of the specific avoidant, withdrawn, or anxious symptoms suggest that these symptoms may lead to problems in regaining their spousal and parental roles. It may also reflect the difficulty veterans with PTSD may have in feeling close to their family members (Sayers, et al., 2009).

For example, over 50% reported a mild to moderate level of domestic abuse, close to a third reported that their partner is afraid of them. Almost 5% acknowledged injury to either the service member or the partner during recent interpersonal conflicts. Thus, various forms of abuse or violence are clearly a prominent feature of relationship difficulties faced by veterans within the context of this study (Sayers, et al., 2009).

It is now well accepted that children and adolescents can develop PTSD following life-threatening traumatic events and the diagnosis of PTSD in children and adolescents is almost isomorphic (Dyregrov & Yule, 2006). Following exposure to traumatic stressors, children display a wide range of stress reactions which vary with age and to some extent gender (Dyregrov & Yule, 2006). Younger children display overt aggression and destructiveness. For preschool children there is less agreement as to the range of severity of their stress reactions. For this age group reactions are more determined by parental reactions to the event. If parents respond in a calm manner then the child can feel protected and secure (Dyregrov & Yule, 2006).

Children's reactions to PTSD are more similar to those manifested by adults. School age children understand the situation and are able to see more of the long-term consequences of the traumatic event(s), and can reflect more on their own role in what happened. Gender differences are often reported, with more girls than boys qualifying

for the diagnosis of PTSD, while boys show higher rates of behavior symptoms (Dyregrov & Yule, 2006; Yule, Perrin, & Smiths, 1999).

In addition to PTSD, our military personnel serving in Iraq and Afghanistan run the risk of developing problems such as depression, anxiety, and traumatic brain injury due to their deployment (Johnson, et al., 2007; Owens, Steger, Whitesell, & Herrera, 2009). Research investigating the return of service members and veterans have found rates of 4% to 14% for depression and 12 to 25% for PTSD, 11% to 19% for traumatic brain injury, and 18% to 35% for any mental health risk or concern (Milliken, Auchterlonie, & Hoge, 2007; Mental Health Advisory Team V, 2008; Tanielin & Jaycox, 2008).

The effects of deployment stressors on children are linked to greater difficulties in children's social and emotional functioning (Chandra, et al., 2010). According to DeVries and Zan (1994), the construction of self proceeds along with corresponding construction of others as having thoughts, feelings, and values, just as the self does (p. 45). Taking into account the child's ability to process information, the child's age influences the cognitive skills they use to make sense of the world (Piaget, 1954/1981, 1997). The events that are set in motion, relative to the child's relations with the adult, influence the child's psychological development (Piaget, 1954/1981, 1997). The child organizes the perceived attitudes of others toward the self and constructs his or her personality with increasingly stable characteristics (DeVries & Zan, 1994; Piaget, 1954/1981). Perhaps, this is the fundamental theory that accounts for emotional and behavior patterns such as tearfulness, unexplained crying, out of the ordinary complaints about school, withdrawals, and poor academic performance that might exist due to the

absences of a deployed parent. This is one more reason why teacher knowledge of deployment issues is so important.

Approximately forty-three percent of active duty service members have children (United States Department of Veterans Affairs 2010a, 2010b). These children face the challenges inherent in having a parent deployed. Many of them must also cope with living with a parent who returns profoundly changed by war. Most families will be able to cope through the support of family, friends, and community (United States Department of Veterans Affairs 2010a). Others, however, will need additional help from service providers to strengthen their resilience, access needed services and adjust to life post-deployment. Veterans themselves recognize the need for such services. In a recent study of Veterans receiving treatment for PTSD, nearly 80% were interested in greater family involvement in their care (Batten, et al., 2009; United States Department of Veterans Affairs, 2010a).

Children's reaction to parental deployments differs and largely depends on the child's age, developmental stage, and the presence of any preexisting psychological or behavioral problems. For example, very young children may exhibit separation anxiety, temper tantrums, and changes in eating habits. School age children might experience a decline in academic performance, and have mood changes or physical complaints. Older children, such as children in their adolescence, may become angry and act out, or withdraw and show signs of apathy (United States Department of Veterans Affairs 2010a, 2010b). Among adolescents, those with parents deployed during Operation Iraqi Freedom had higher measured heart rates and perceived stress levels compared with

civilian controls and adolescents without a deployed parent (Barnes & Treiber, 2007; Chartrand, Frank, White, & Shape, 2008).

A qualitative study conducted during the current conflicts in Iraq and Afghanistan found that adolescents with a deployed parent reported feelings of uncertainty and loss. This may disrupt successful adolescent development (Chartrand, et al., 2008; Huebner, et al., 2007). Recent evidence also suggests that military families who experience repeated or prolonged deployments were at risk for child maltreatment. Young married couples with young children were at greatest risk for reports of child neglect (Chartrand, et al., 2008; Gibbs, Martin, Kupper, & Johnson, 2007; Rentz, et al., 2007).

Studies dating back to Veterans from the Vietnam era demonstrated the negative impact on families of war-related PTSD. The Vietnam era veterans had higher levels of marital problems, family violence, and partner distress and their children displayed more behavioral problems than do those of veterans without PTSD. Veterans with the highest levels of symptoms had families with the worst functioning (Kulka, et al., 1990). The difficulty these veterans are experiencing — emotions and their sense of detachment — may make it difficult for them to deal with their personal relationships, and may even lead to behavioral problems on the part of their children (Samper, Taft, & King, 2004).

Recent studies of military personnel deployed to Afghanistan and Iraq have looked at family functioning in the near-term post-deployment periods. In one study, soldiers' dissociative symptoms, sexual problems, and sleep disturbances had the greatest impact on their personal relationships (Goff, Crow, Reisbig, & Hamilton, 2007). In a sample referred for mental health evaluation, 75% of veterans with partners reported at least one family adjustment issue (United States Department of Veterans Affairs 2010a).

Additionally, about fifty-four percent of these veterans reported violence such as shouting, shoving or pushing current or former partners. Also, symptoms of depression were associated with family problems in general and domestic abuse in particular (United States Department of Veterans Affairs, 2010a, 2010b). Among veterans with children, those with more severe PTSD and depression were more likely to report that their children were afraid of them or lacked warmth towards them (Sayers, et al., 2009).

In spite of age, children exposed to chronic and repeated stressors, such as victims of physical and sexual abuse, war or harassment, may develop personality changes, various self-injurious and suicidal behaviors, depression or other psychiatric disturbances. Exposure to trauma in these formative years may also affect the maturation of the central nervous system and the neuroendocrine systems (Dyregrov & Yule, 2006).

This section of the literature explored the effect of deployment stressors on children and family. The evidence presented here demonstrates the impact of parental traumatic experiences of children and demonstrates that these youth are at higher risk for developing psychiatric disorders or other behavioral or emotional problems. Figure 2 includes a chart that list other stressors as well as a summary that show the effects of deployment stressors on children and families.

| The Effects of Military Deployment Stressors on Children and Families |
|---|
| • **The extent to which their duty was dangerous (even if they were only awaiting this danger)** |
| • **Death or serious injury in their military unit** |
| • **Possibility of exposure to chemical warfare or other weapons of mass destruction** |
| • **Length of time they spent overseas** |
| • **Exposure to dead and wounded (including enemy combatants and civilians)** |
| • **Past trauma that can be heightened by the stress of war** |
| • **Degree to which family dynamics have changed during their absence, such as a child's or spouse's increased dependency or independence** |
| **Families have been stressed, too. The families of deployed personnel have had their own set of problems during the conflict, such as:** |
| • **Fear for the deployed family member's safety** |
| • **Disruption of established patterns and routines** |
| • **Decreased income and financial worry** |
| • **Negative reactions from children to sudden changes in the family environment** |
| • **Need to develop new resilience skills, renew family relationships, make new friends, and join support groups** |
| • **Being overburdened by new roles and responsibilities** |
| **Many families will continue to have pressures during the homecoming period, including:** |
| • **Being second-guessed for decisions made during a member's absence during war** |
| • **Having conflict over new relationships—such as a new baby and new friends** |
| • **Experiencing shifts in decision making** |
| • **The fact that family dynamics can never return to what they were before deployment** |
| **(Molitor, Palmares, & Sammons, 2010)** |

**Figure 2.** The Effects of Military Deployment Stressors on Children and Families

## Resilience, School Connectedness, and Interventions

*In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being, and their capacity individually and collectively to negotiate for these resources to be provided in culturally meaningful ways* (Ungar, 2010).

It is remarkable how resilient military dependent children are considering the adversities associated with deployments over past decade. We all have an individual and unique way of dealing with stressful situations in a time of war. Building resilience can help us manage stress and feelings of anxiety and uncertainty related to war (Carlson, et al., 2003). Resilience plays a major role, particularly during the phases of deployment (Johnson et al., 2007). According to MacDemid, Samper, Schwarz, Nishida, and Nyaronga (2008), common to most explanations of resilience is that the individual is faced with a potentially traumatic situation.

Military members and their families know they must be prepared to serve wherever and however the mission dictates. For military families readiness is about resilience (MacDermid, Samper, Schwarz, Nishida, & Nyaronga, 2008). Moreover, the American military and their families have endured challenges and stressful conditions that are unprecedented in recent history, including unrelenting operational demands and recurring deployments in combat zones (Johnson et al., 2007). The deployment of military personnel to active war zones, which involves the issues of separation, time away from home, and eventual reunion, increases the vulnerability of their families to multiple, negative short-term and long-term effects (Huebner, Mancini, Bowen, & Orthner, 2009). Resilience is the capacity to tolerate and recover from stressful events (Military Homefront, 2010).

Fergus and Zimmerman (2005) argued that although positive adjustment, competence and coping are all conceptually related to resilience, they can all be exhibited in the absence of adverse or traumatic circumstances. Being resilient does not mean that you will not experience difficulty or distress (Carlson, et al., 2003). Weins and Boss

(2006) suggested that most families rise to the occasion and adapt successfully to this stressful experience whereas Johnson et al. (2007) emphasized family readiness is considered a key factor in resilience.

Studies relative to resilience have shown that spouses who function most effectively during this time are those who use active coping styles (Jensen & Shaw, 1996). Those who understand the situation (Hammer, Cullen, Marchand, & Dezsofi, 2006), those who obtain community and social support (Weins & Boss, 2006), spouses who adopt flexible gender roles (Johnson et al., 2007; Kelley, Herzog-Simmer, & Harris, 1994), those who accept the culture of military, those that are optimistic, and those that are self-reliant (Patterson & McCubbin, 1984). All things considered, and despite the negative overtones of family issues associated with war and its aftermath, the U. S. military has an impressive human service delivery system in place that is designed to support families and thus lower their chances of experiencing problems and dysfunction (Huebner, et al., 2009).

Youth resiliency and adjustment to parental military deployments are largely a function of three issues: (1) the ability of the remaining parent to cope with the deployment, (2) the length of deployment, and (3) the type of deployment, either peacetime, or wartime (Harrison & Vannest, 2008). Depending on the population studied, resilience is conceptualized differently. When examining children, resilience is most often looked at from a developmental perspective and seeks to identify variables most likely to produce positive outcomes in the face of adversity (MacDermid, et al., 2008).

Resilience in adults is conceptualized as factors that allow an individual to successfully cope with a traumatic event while maintaining a healthy level of functioning (Bonanno, 2004). Resilience in adolescents appears to combine these two approaches. Developmental systems theory recognizes the individual and the context as being dynamically interactive. Youth are seen as active participants in shaping the environment which, in turn, increases their own individual competencies (Theokas, et al., 2005). Resilience in adults affects not only their own long-term outcomes, but also those of their family members. Parents who model resilience improve their children's skills and abilities to be resilient (MacDermid, et al., 2008). Spouses who respond to adverse circumstances with resilience make it easier for their partners to weather challenges and also reduce the negative consequences for other family members (MacDermid, et al., 2008).

The nature of military deployments makes it obvious that adverse events are not completely avoidable. If only one strategy could be undertaken to increase the likelihood that children and adolescents would have the skills and abilities necessary for resilience, evidence indicates that this strategy should be to ensure that every child and adolescent is treated with ample warmth, appropriate limits, and competent monitoring. Providing these strategies helps to insure that children are far more likely to develop the social, emotional and coping skills they need to face difficult challenges (MacDermid, et al., 2008).

Beyond the individual characteristics of resilient children, researchers have begun to pay more attention to how school may affect students' academic resiliency (Borman & Overman, 2004). Researchers have suggested that school environments may provide

protective factors that mitigate against school failure and that they may introduce additional stressors and adversities that place students at even greater risk of academic failure (Borman & Overman, 2004). In many schools where children's physical needs are addressed, emotional needs may be overlooked. The child's feelings should be taken into account in order to help them construct a more stable system of feelings and ways of coping with difficult feelings (DeVries & Zan, 1994). Respecting the child's feelings requires communicating acceptance and affection. It requires providing an environment that encourages and supports children's feelings, interests, and values. This includes accepting the child's right to feel anger and sadness as well as positive feelings (DeVries & Zan, 1994).

To promote relationships such as the description above, one may strive to create a sociomoral atmosphere of mutual respect that is repeatedly practiced in the classroom (DeVries, 2002). This approach is consistent with the constructivist learning theory (DeVries, 2002; Piaget, 1997). The existing literature reveals that the constructivists approach allows children to reflect on their own behaviors and help alleviate problem behaviors that can be associated with stress. For example, children's convictions about interpersonal relations develop when children have the opportunity to reflect on social and moral problems in their lives, make mistakes, experience their consequences, and develop their own reasons for following rules (DeVries, 2002). Authoritarian classrooms which use emotional intimidation and arbitrary punishments have no place in a constructivist classroom (DeVries, 2002). Neither does passive, permissive or "letting children run wild".

The research by Devries (2002) titled, *"What Does Research on Constructivist Education Tell Us about Effective Schools?"* and "*Moral Classrooms, Moral Children Creating a Constructivist Atmosphere in Early Education"* by Devries and Zan (1994), bear the fruits that will help alleviate these conditions. It promotes the first principle of constructivist education, which is to create a sociomoral atmosphere in which mutual respect is continually practiced (DeVries, 2002). The strategies imbedded in the constructivist approach are reasons why students within DoDEA schools display such remarkable resilience in face of the numerous deployment challenges. Further, discipline in a constructivist classroom, is linked to moral and intellectual goals. In order to promote autonomy and prevent an overbalance of heteronomy, constructivist teachers consciously monitor their interactions with children. This means that unnecessary external control, punishment, and excessive praise are absent. Rather, logical consequences impress upon children the results of their actions (DeVries, 2002).

The case in support of school constructivism is plentiful in contemporary literature and the importance of teacher knowledge on constructivist principles is one more tool teachers can use to make the atmosphere for military children less stressful. Research has revealed that second only to family, school is the most important stabilizing force in the lives of young people. For military children, who may move as many as 15 times before they graduate from high school, a school environment where they feel secure and ready to learn is critical (Blum, 2004). School connections are the belief by students that adults in the school care about their learning and about them as individuals.

Students are more likely to succeed when they feel connected to school (Blum, 2004). Critical requirements for feeling connected include high academic rigor and

expectations coupled with support for learning, positive adult-student relationships, and physical and emotional safety (Blum, 2004). Blum (2004) suggested the following proactive management strategies used by effective teachers to promote classroom connectedness:

(1) They establish consistent classroom routines, and they recognize and reward desirable student behavior.

(2) They help students set both academic and behavioral goal, share the goals with parents, and review them periodically.

(3) They use interactive and experiential teaching methods that are oriented to explicit learning objectives.

(4) They develop assignments which students investigate issues, interview people, visit sites and report to the teacher.

(5) They involve small teams of students of different ability levels and recognize the academic improvement of individual team members. (p. 6)

Why is it necessary for teachers to involve themselves? First, research has shown the way an adult reacts to individuals and groups after a crisis can significantly affect the outcome of the student's experience (Educational Opportunities Directorate of the Department of Defense, 2003). Once the immediate physical and safety needs of the child are met, consideration must be given to their psychological needs. Through supportive interventions delayed or prolonged stress responses can be minimized and learning can resume (Educational Opportunities Directorate of the Department of Defense, 2003). Second, the process of effective intervening with ten individuals or groups of children can create a sense of class cohesiveness and help to re-establish the

student's sense of security and belonging in class (Educational Opportunities Directorate of the Department of Defense).

Teachers should listen to their students and be approachable while being sensitive to the unique needs of children coping with deployment and family separations. Teachers can let the student know they can speak with you or with a school counselor, nurse, psychologist or social worker about their questions and concerns (Educational Opportunities Directorate of the Department of Defense, 2003). Also take time to discuss the deployment and provide honest and factual information (Educational Opportunities Directorate of the Department of Defense, 2003). Allowing students to ask questions will help them can gain information about the event which helps take away some of their confusion. Talk to students about events in terms they can understand and limit scary or hurtful communication. Some children may struggle with expressing themselves and may communicate inappropriately. Nevertheless, it is important to recognize that this is also a way of coping with overwhelming feelings of fear, anxiety and confusion (Educational Opportunities Directorate of the Department of Defense, 2003).

In addition to listening to students, teachers should also consider when to make a referral to the school counselor, psychologist or social worker. Prolonged symptoms persisting over several weeks, or if symptoms seem extreme, teachers and counselors should contact the parent. The teacher should also consult with the school site administrator and support staff. Doing so will help to ensure that the appropriate mental health referrals are recommended within the school or community. Depending on the school system, support staff members may include the school nurse, school psychologist,

school social worker and crisis intervention team member (Educational Opportunities Directorate of the Department of Defense, 2003).

Anger stemming from deployment issues may often lead to office referrals. Administrators and teachers should reinforce anger management and expect some angry outbursts from students (Educational Opportunities Directorate of the Department of Defense, 2003). Reinforce age-appropriate anger management and adjustment interventions to ensure a climate of nonviolence and acceptance. Make appropriate referral to the school counselor as appropriate (Educational Opportunities Directorate of the Department of Defense, 2003).

Educators play a critical role in the life of each student (Educational Opportunities Directorate of the Department of Defense, 2003). They are an important and valuable resource and support as the children affected by deployment learn to cope (Educational Opportunities Directorate of the Department of Defense, 2003). Educators must also remember to rely on our own wisdom and knowledge of childhood development to help each student and to assess their individual needs and the needs of the other children in your classroom (Educational Opportunities Directorate of the Department of Defense, 2003).

Furthermore, teachers set the tone, provide behavioral examples and establish a climate of trust or mistrust. Listed in Figures 3, 4 and 5 are actions on the part of these administrators and teachers that have shown to improve students' sense of school connectedness.

| Administrators Can |
|---|
| **Be committed to authoritative rather than authoritarian leadership.** |
| Negotiate rules with students, and expect all adults in school to serve on a committee. |
| **Adapt school rules and policies that are fair and equitably applied** |
| Students, teachers and administrators establish and review school rules annually. Consequences for infractions are clear and fair, and exceptions are not made for some students (e.g., the star athlete). |
| **Provide a clear academic mission** |
| Involve administrators, students, teachers and parents in defining the mission of the school, and post it in every classroom. |
| **Create an orderly school environment** |
| Reduce noise levels (e.g., in lunchroom) Use lunchroom space for activities, such as teaching "dress for success" concepts. Involve students in maintaining the physical environment and in all-school projects like clean up, repair and planting. |
| **Use a school social climate assessment tool.** |
| Choose a tool that assesses teachers, students, parents and other community members' perceptions. |
| **Promote high academic standards and expectations.** |
| Set goals for each teacher and review them semi-annually. Use awards to reinforce not only achievements but also improvements and innovations. |
| **Develop school-wide community service projects.** |
| Create school improvement projects. Institute ongoing student, teacher and administrator community-service projects. Start a "Clean up the neighborhood" day. |
| **Ensure that every student in the school has an adult assigned to know and "watch out" for that student.** |
| Prior to the start of the school year, assign every new student to an adult mentor who calls the student in advance, greets the student on the first day of school, introduces the student to the first period class and periodically checks in with the student. |
| **Create small learning environments.** |
| Establish schools-at-school. Create physical spaces throughout the school where small groups can meet. |
| **Ensure that parents are well informed.** |
| Send newsletters home periodically. Use recorded phone messages automatically dialed to students' homes. Hold school meetings, and provide transportation and baby-sitters. Make recorded messages available to parents in primary languages, and have translators available for parent/teacher meetings. |
| **Foster team teaching.** |
| Teams of teachers collaborate to address student learning and behavior problems. Teacher teams meet periodically with parents. |

(Blum, 2004)

*Figure 3.* Resilience Strategies for Administrators

| Classroom Teachers Can |
|---|
| **Establish high academic expectations.** |
| Use challenging curriculum and continually reinforce high standards. Use multiple strategies to assess students; e.g. written tests, projects and presentations. Involve students as educators as well as learners. |
| **Provide consistent classroom management.** |
| Establish a behavioral "Magna Carta" in which rules and consequences are clear. Use conflicts as learning opportunities. Employ non-aggressive strategies to control behavior (e.g., strand by an unruly student and teach from that position in the class) |
| **Strengthen parent-teacher relationships.** |
| Send notes home when children do well ("happy-grams"), not just when they are in trouble. Phone or e-mail the student's home when issues arise. |
| **Encourage cooperative behavioral educational techniques.** |
| Use team assignments, peer tutoring and small-group experiential learning activities. |
| **Use behavioral and cognitive behavioral educational techniques.** |
| Create scenarios of conflict and use role-play to discuss resolution. Use reading assignments to explore non-aggressive resolution strategies. |
| **Rely on peer-assisted teaching.** |
| Use cross-age as well as same-age tutoring for academics, sports and health education. Use students as conflict mediators. |
| **Create democratic classrooms.** |
| Give every child a classroom job on a rotating basis. Ensure that all students have an equal chance to be called on (e.g., draw names from a fish bowl). Involve students in planning curriculum and choosing group assignments. Provide students choice in reading materials. Develop small group assignments together with students. |
| **Develop identified jobs for all students.** |
| Establish clear roles for every student either in class or school from cross-age tutoring to lunchroom assistant, etc. |
| **Share positive reports of student behavior and achievement with parents.** |
| Report accomplishments and progress toward achieving goals. |
| **Develop routines and rituals for the class.** |
| Establish weekly award and recognition time. Begin and conclude each class with consistent activities. |

(Blum, 2004)

*Figure 4.* Resilience Strategies for Teachers

| To help children deal with war-related stress, parents and teachers should: |
|---|
| Listen to children's thoughts and concerns about the war in a nonjudgmental fashion. |
| Provide warmth and reassurance, without minimizing the child's concerns. |
| Avoid imposing their own fears on children. Adult difficulties should be worked out without burdening the child or expecting a child to support the adult for any prolonged period. Children can provide important love and comfort, but they need strong adult support to do so. |
| Recognize that children, like most adults, will bounce back successfully. Relate this positive expectation to them, so that the children's past experience will not lead them to a pessimistic view of the future. |
| Remember that a child often will mirror a parent's reaction. If parents demonstrate resilience, children will have positive role models. |
| Seek help from a mental health professional for the family if the family is unable to function on a daily basis. |

(Molitor, et al., 2010)

*Figure 5.* Strategies to Help Children Cope with War Related Stress

When discussing features of schools that foster resilience, researchers listed effective school characteristics, such as strong principal leadership and a clear school mission, but have been less definitive about the processes through which these characteristics may be related to the psychosocial phenomenon of resilience (Borman & Overman, 2004). Largely, if we have the capacity to develop resilience it involves behaviors, thoughts, and actions that can be learned over time (Carlson, et al., 2003).

## Implications

The military family culture explicitly demands commitment of the service member regardless of personal cost and implicitly requires an equal amount of commitment from the family of the service member (Drummet, et al., 2003). The effect of household disruptions such as parental absences on children's schooling has broad implications for educational policy, labor markets dynamics, and even national security (Engel, et al., 2009). Adapting to stress might not be possible for all children of deployed military personnel. Some children may have difficulty coping with the loss and change

in family routines or school change (Fitzsimons & Krause-Parello, 2009). Military parents may or may not return home, and current perspectives of soldiers returning from the military may include serious physical, cognitive, and mental issues (Fitzsimons & Krause-Parello).

Children in the school setting who are or have experienced these parental issues may present behaviors such as bullying, physical fighting, cheating, and skipping classes as a method to attract the attention of school personnel (Fitzsimons & Krause-Parello, 2009). This is why it is so important for teachers to develop knowledge of stressors related to military deployments. Their knowledge should also include child development and the sociomoral atmosphere of military children.

**Recommended Support**

Children's social, emotional, behavioral, and academic performance are widely affected by the home environment (Stewart, 2006). Awareness and prevention of problems by teachers and school may help children's emotional and behavioral problems from becoming significant (Harrison & Vannest, 2008). Alleviating home stressors through direct services can improve the behavioral and academic performance for which schools are held accountable (United States Department of Education, 2002). Supporting families during deployment requires helping teachers understand the experience of students whose parents are deployed to a war zone. Teacher-focused supports educate teachers about deployment and provide them with the skills necessary to assist their students (Harrison & Vannest, 2008). Harrison and Vannest (2008) recommend that teachers receive in-services to learn about the deployment cycle and develop an understanding of children's reactions to a parent's deployment. To do so allows the

teacher to differentiate between normal reactions and those that require a mental health referral (Garrett, 2003). Harrison and Vannest (2008) also suggest that classroom supports should integrate deployment into the curriculum. These researchers encourage teachers to incorporate deployment into all subject areas while making sure that the students continue to progress on all established standards and expectations.

Finally, a White House report was recently published in response to Presidential Study Directive/PSD-9. This report is a government-wide effort to care for and support military families. It is designated a top national security policy priority (Interagency Policy Committee, 2011). This Interagency Policy Committee (2011), in paragraph 2.2.2 further states that, "DoD will accelerate professional development programs to inform school staff of the academic challenges facing military children. These include training modules and sessions on special education, and an interactive educational resource for military families, military leaders, and school leaders titled *Students at the Center*" (p. 1). According to Department of Defense Education Activity: Military K–12 Partners (2011), *Students at the Center* is an online resource that provides information on important policies, procedures, and best practices to families, military leaders, and school leaders that are critical to supporting the needs of military families' education. The researcher recommends that both public and DoDEA teachers should be acquainted with the Students at the Center online recourse.

## Summary

Since September 11, 2001, the U.S. Army deployments went from 8% of its force deployed to having more than 36% deployed in 2005. During this time, the average deployment became 50% longer (Engel, et al., 2006). As a teacher working within DoDEA, the researcher experienced the deployments of numerous military personal

including the researchers own children serving on active duty. Thus, the researcher experienced first had how the deployments affect student academic achievement. These experiences allowed the researcher to further understanding the unique culture within the military community and DODEA. The connections established resulted from many years of combined military service and DoDEA provided the researcher with a rich perception for understanding the phenomenon related to the life of the military child.

## Rationale for the Research Questions

The purpose of this exploratory study was to investigate the relationship between an online military deployment tutorial and teacher knowledge related to military deployment. In addition, the researcher wanted to discern if teachers would find professional development provided in an online tutorial to be relevant and useful in expanding their knowledge of military children. The researcher created an online tutorial of military deployment issues to be used by teachers and administrators in public schools and DoDEA schools. The tutorial was used to inform these teachers of three important areas related to deployment and military children: 1) how deployment is defined and what the deployment cycle entails, 2) stressors children encounter as a result of having a parent deployed, and 3) what teachers can do to help children with deployment stressors encountered during deployment. From this exploratory study, the researcher wanted to determine if online tutorials could be helpful in increasing knowledge about deployment related issues. Based on the evidence thus far, this researcher's assumption is that due to daily exposure of military culture, teachers in DoDEA schools will initially have a greater understanding of military deployments than public school teachers will have.

Despite the promising research regarding academic achievement of military children researchers do call for greater support to diminish the challenges families face (Papp, et al., 2003). As noted with other successful programs, multifaceted advocacy and collaborations are needed to further improve the educational opportunities and outcomes for children of military families (Papp, et al., 2003). This researcher suggested the following research questions for study. Research suggested using the study as an exploratory investigation of content and context. Military deployment knowledge for teachers and other school personnel in an online tutorial may prove to be a significant resource which can be added to the repertoire of military assistance.

1. Is there a significant difference in overall teacher knowledge of military deployment given the pretest, tutorial and posttest design?

2. Is there a significant difference in teacher knowledge of military deployment given the pretest, tutorial and posttest design between public and DoDEA teachers?

3. Given the pretest, tutorial and posttest, is there a significant difference in teacher knowledge of the Emotional Stressors for Children and Adults (ESCA), The Deployment Cycle (TDC), The Sociomoral Atmosphere of Children (TSAC), and Intervention Strategies for Teachers (IST)?

4. Did participants gain knowledge in regards to military deployment? Was the Military Deployment Tutorial relevant to their teaching occupations?

5. Did it appear that online tutorials are beneficial as a public service to educate participants and raise awareness of military deployments?

# CHAPTER 3. METHODS

## Overview

This chapter described the methodology used in the study and contains a description of the purpose, the research questions, population and sample, research design, the instrumentation used, data collection, and analysis procedures. This study explored the development and implementation of an online military deployment tutorial. The objective was to determine whether teacher knowledge changed from the pretest posttest format. The researcher established the four domains of the tutorial from empirical research in the following areas: military deployment, deployment stressors, teacher intervention strategies and child development theories related to sociomoral development of military children (Batten, et al., 2009; Booth, et al., 2007; Chandra, et al., 2010; Chartrand, et al., 2008; DeVries, 2004; Figley & Nash, 2007; Giroux & Purpel, 1983; Piaget, 1954/1981).

## Purpose of the Study

The purpose of this mixed method study was to examine the possible influence of a military deployment online tutorial on teacher knowledge. DoDEA and public school teachers were the two groups used for the study. In addition, the researcher wanted to explore if teachers would find professional development provided in an online tutorial to be relevant and useful in expanding their knowledge of military children.

The researcher created an online tutorial of military deployment issues to be used by teachers and administrators in public schools and DoDEA schools. The tutorial was used to inform these teachers of four important areas related to deployment and military children: 1) how deployment is defined and what the deployment cycle entails, 2) stressors children encounter as a result of having a parent deployed, 3) what teachers can do to help children with deployment stressors encountered during deployment, and 4) the sociomoral development of the military child. From this exploratory study, the researcher wanted to determine if online tutorials could be used to increase knowledge about deployment related issues. The four domains of the tutorial were: Emotional Stressors for Children and Adults (ESCA), The Deployment Cycle (TDC), The Sociomoral Atmosphere of Children (TSAC), and the Intervention Strategies for Teachers (IST).

## Significance

In general, the literature pertaining to military deployments and student outcomes continues to expand and there are studies that address the effects of emotional and psychosocial stressors on military parents, children and families (Chandra, Lora-Cinisomo, Jaycox, Tanielian, & Rachel, 2010; Cozza, Chun, & Polo, 2005; Dowdney, 2000; Park, 2011; Pincus, House, Christensen, & Adler, 2006). There are studies exploring resilience (7-Dippity, 2003; Johnson, et al., 2007; Palmer, 2008) and studies offering tips for teachers and administrators to help children cope with separation from a parent due to military deployment (Educational Opportunities Directorate of Department of Defense, 2003; Helmick & Hudson, 1997). There are also picture books for children written to help them cope with military deployments (Robertson, 2005; Timperley &

Arro, 2005). However, a very limited number of empirical studies exist that explore teacher knowledge concerning military deployments.

Empirical studies of online professional development opportunities for teachers in the area of military children and deployment appeared meager. For this study, the objective was to determine whether teacher knowledge was influenced after participating in an online tutorial and if the participants found the military deployment knowledge and the online tutorial to be beneficial for their profession. This study used an online military deployment tutorial created by the researcher. It was administered to DoDEA and public school teachers as an assessment tool to measure teacher knowledge.

According to Smerker and Owens (2003), teachers in DoDEA schools share a deep understanding of military life, including the frequent moving, deployment, and time away from home. What seemed less clear is if this is the case for public school teachers. The Department of Defense (DOD) and other agencies have provided more assistance to military families than in previous times of conflict (Helmick & Hudson, 1997; Park, 2011). Part of this attention is devoted to those who teach the military child.

## Research Questions

The following research questions were designed to add to the body of knowledge of military deployment and to explore the possibility of online tutorials as a form of professional development for educators working with military children.

1. Is there a significant difference in overall teacher knowledge of military deployment given the pretest, tutorial and posttest design?

2. Is there a significant difference in teacher knowledge of military deployment given the pretest, tutorial and posttest design between public and DoDEA teachers?

3. Given the pretest, tutorial and posttest, is there a significant difference in teacher knowledge of the Emotional Stressors for Children and Adults (ESCA), The Deployment Cycle (TDC), The Sociomoral Atmosphere of Children (TSAC), and Intervention Strategies for Teachers (IST)?

4. Did participants gain knowledge in regards to military deployment? Was the Military Deployment Tutorial relevant to their teaching occupations?

5. Did it appear that online tutorials are beneficial as a public service to educate participants and raise awareness of military deployments?

## Role of the Researcher

As a DoDEA elementary teacher and aspiring school administrator for a large military school district, this researcher was charged with overseeing the lives of children. Working in this capacity as well as being retired military has allowed the researcher to witness children and families struggle with military deployment. These experiences have spanned more than 35 years and have permitted the researcher to have a rich understanding of the DoDEA school system. While the researcher is cognizant of deployment related issues others within DoDEA and public school systems may not have the same depth of knowledge. In essence, this research study was not only prompted by the literature surrounding the topic, but also by the realities witnessed by the researcher throughout his time in military service and as a DoDEA teacher.

## Population and Sample

### Description of the Population

The Human Resources Office for one public school system and one DoDEA school system were asked to provide information concerning the number of currently employed, certified teachers. The public school system had 355 certified teachers. Since the DoDEA school system did not have a high school assigned to its system, the researcher eliminated 103 teachers assigned to the public school system's high school from the population, which brought the public school system population to 252 certified teachers. The DoDEA school system had 325 certified teachers in their population. However, one principal from a DoDEA school consisting of 22 teachers decided not to participate in the study. This brings the DoDEA population to 303. The overall number of certified teachers receiving email invitations was 555.

A total of 118 respondents participated in the online tutorial and therefore represented the sample population for this study. The completion rate for the two school systems was even. The public school system completion rate was 20% (51 out of 253 certified staff members) and DoDEA's completion rate was 22% (67 out of 303 certified teachers). Overall, the completion rate for this study was 21% (118 out of 555).

## Instrumentation

This study utilized an online military deployment tutorial as an intervention strategy designed to improve teacher knowledge relative to the four domains under study. An outline of the four domains of teacher knowledge includes:

- Emotional Stressors for Children and Adults (ESCA),
- The Deployment Cycle (TDC),

- The Sociomoral Atmosphere of Children (TSAC), and
- Intervention Strategies for Teachers (IST)?

The following describe the four domains that were used to construct the online Military Deployment Tutorial:

1. *Emotional Stressors in Children and Adults Domain.* This domain described the effects of deployment stressors on children and adults and how these stressors are linked to greater difficulties in a child's social and emotional functioning. The domain explained how the child organizes the perceived attitudes of others and how the child constructs his or her personality and attitudes (DeVries & Zan, 1994; Piaget, 1954/1981, 1997).

   For example, traumatic events, such as the sudden loss of a parent due to deployment, can dramatically impacted the child's environment (Dyregrov, 1993). These traumatic events can potentially resulted in a complex mixture of trauma and grief that might manifest in to a condition commonly known as Post Traumatic Syndrome, or PTSD (Dyregrov, 1993). A child's reaction to parental deployment will vary depending on the child's developmental stage, age and previous psychological and behavioral problems (Department of Veterans Affairs, 2010). The Emotional Stressors in Children and Adults domain also suggests that military families who experience repeated or prolonged deployments were at risk for child maltreatment (Chandra, Lora-Cinisomo, Jaycox, Tanielian, & Rachel, 2010; Department of Veterans Affairs, 2010; Dyregrov, 1993; Huebner & Mancini, 2005, 1997; Huebner, Mancini, Wilcox, Grass, & Crass, 2007).

2. *The Deployment Cycle Domain.* The Deployment Cycle domain described the four phases of military deployments and the seven stages of the New Emotional Cycles of Deployment (Department of Defense, 2008a; Morse, 2006). The Deployment Cycle described the four phases for the movement of troops as a continuous process, which begins and ends with your regular military life at home. The four phases are: Pre-Deployment; Deployment, Post Deployment, and Reintegration/Reunion (Department of Defense, 2008a; Huebner & Mancini, 2005).

   The Emotional Cycles of Deployment explained how individuals move through similar emotional stages when trying to cope with a deployment (Morse, 2006). The New Emotional Cycles of Deployment consisted of seven stages to illustrate the various emotional stressors resulting from military deployment. The seven stages of the New Emotional Cycles of Deployment were:

   a. Stage 1 – Anticipation of Departure
   b. Stage 2 – Detachment and Withdrawal
   c. Stage 3 – Emotional Disorganization
   d. Stage 4 – Recovery and Stabilization
   e. Stage 5 – Anticipation of Return
   f. State 6 – Return Adjustment and Renegotiation
   g. State 7 – Reintegration and Stabilization

   The Deployment Cycle domain also described how service members deployed to combat zones increases the possibility of emotional problems

(Johnson, et al., 2007). For instance, a separation is even more stressful if it entailed deployment to a conflict zone because of the increased possibility that the soldier may be injured or killed (Booth, et al., 2007).

3. *Intervention Strategies for Teachers Domain.* The Intervention Strategies for Teachers domain described how teacher knowledge of deployment issues is a basic component of intervention strategies for children. Throughout this domain, research regarding intervention strategies for teachers suggested interventions with individuals or groups of children can create a sense of class cohesiveness and help establish the student's sense of security and belonging (Educational Opportunities Directorate of the Department of Defense, 2003).

   One such example was using role-play. This helped to improve students' sense of school connectedness. Role-playing is a form of behavioral and cognitive-behavioral techniques (Blum, 2004). Another example is a simple reading assignment that allows students to explore non-aggressive conflict resolution. Teachers can use this to mitigate stressful situations in the classroom (Blum, 2004). Teachers can create scenarios of conflict and use role-play to discuss conflict resolutions (Blum, 2004). All of these intervention strategies will help to establish a climate of trust and to improve students' sense of school connectedness (Educational Opportunities Directorate of the Department of Defense, 2003).

   Other Intervention Strategies for Teachers includes teachers providing honest and factual information when discussing deployment related issues. Teachers should talk in terms that children understand and limit scary or

hurtful communication (Educational Opportunities Directorate of the Department of Defense, 2003). Teaches should practice the technique of listening to their students and consider when to make a referral to the school counselor, psychologist, or social worker. Listening and watching for prolonged symptoms persisting over several weeks is important for teachers. If the child's actions and thoughts continue or seem extreme, the teacher and counselor should contact the child's caretaker (Educational Opportunities Directorate of the Department of Defense, 2003).

Always remember that teachers play a critical role in the life of each student and are an important and valuable resource and support as the child learns to cope (Educational Opportunities Directorate of the Department of Defense, 2003). Research has revealed that second only to family, school is the most important stabilizing force in the lives of young people (Blum, 2004).

4. *The Sociomoral Atmosphere of Children Domain.* The Sociomoral Atmosphere of Children domain explores how the child processes the psychological and emotional stressors resulting from military deployment issues. Existing literature is limited regarding teacher knowledge of military deployment issues. For this domain the researcher combined child development theories within the context of military children.

   To understand how military deployments influence the sociomoral atmosphere of students, one must first have an idea of how the sociomoral atmosphere influences the child's development. Sociomoral atmosphere

entails all interactions between and among children, their primary caregivers and educators. It suggests all of these may have an impact on the child's social and moral experiences and the child's development (DeVries & Zan, 1994).

Referring to another example, Dreeben's (1968) sociological study of schooling, *What Is Learned in School,* demonstrated that societal contexts of the factory, military, and the church make their way into school organizations in subtle but pronounced ways. For that reason, the larger school atmosphere can foster or impede the development of the classroom's sociomoral atmosphere (DeVries & Zan, 1994). Through daily interactions, it is the adults who determine the nature of the sociomoral atmosphere in which the young child lives (DeVries & Zan, 1994). Pairing these theories with what we have learned in regards to military deployments it becomes clear that several youth outcomes, including depression, behavioral problems, and poor academic performance can occur. Thus, teacher knowledge of the military child's sociomoral atmosphere is very important.

The first step was to form an expert panel to review the procedures and the items from the four domains. The panel included the researcher, a university professor, one DoDEA school psychologist, one public school counselor, and one public school administrator. The five member panel met and addressed the demographic information gathered in Part I, all 20 of the indicators represented in the tutorial and the open-ended questions concluding the tutorial.

Meetings were held two times. The first meeting was used to clarify the demographic information, the 20 items used in the four domains of the tutorial and the open ended questions used in the survey. The researcher made revisions to the tutorial and emailed the survey to the expert panel and asked the panel to assemble once more for feedback and final revisions. After the second meeting and minor revisions the expert panel agreed the survey was ready to pilot test.

**Pilot Study**

In order to judge the validity of the instrument, a pilot test was conducted. Participants of the pilot test were not included in the study. Educators who were linked to a public school system or DoDEA school system were chosen because they fit the general description of the sample population and were willing to cooperate with the study. The researcher selected four recently retired DoDEA teachers, six active public teachers, and two active DoDEA teachers to pilot test the instrument. The researcher conducted a pilot test to insure the instruments validity and reliability and to ensure testing procedures had been appropriately mapped. Linking the pretest and posttest for each respondent was the only substantive change to the instrument. At the suggestion of pilot participants, the researcher rearranged three questions so there was an improved sequence and then minor modifications to the phraseology were made for clarity.

Using an online format was an important part of this study. The researcher was piloting this tutorial to gain understanding about the current levels of knowledge teachers might have about deployment related issues and to detect increases in their knowledge as a result of the tutorial. Another very important point of this study was to determine if online tutorials could be used as a public service or professional development opportunity

for those associated with the military child's education. Finally, an advantage of the online version of the survey included being able to reach a large number of recipients within a short time period. The DoDEA system was located throughout two southeastern states so the online format was particularly helpful for gathering data.

**Instrument Reliability**

Given the dichotomous nature of the instrument, the Kuder-Richardson 20 was used to measure reliability. The overall alpha coefficient for the twenty items in the pilot study was .667. This suggested internal consistency was acceptable and thus the researcher continued with the tutorial phase for the main study. When the survey results were received from the 118 participants, instrument reliability was confirmed at .978.

Table 1

*Reliability Statistics for the Military Deployment Tutorial (n = 118) given a pre-test, Tutorial, Post-test Design (Cronbach's Alpha Coefficient for the four domains)*

| Tutorial | Cronbach's Alpha |
|---|---|
| Military Deployment Tutorial | .978 |
| Emotional Stressors for Children and Adults (ESCA) | .910 |
| The Deployment Cycle (TDC) | .951 |
| The Sociomoral Atmosphere of Children (TSAC) | .845 |
| Intervention Strategies for Teachers (IST) | .959 |

Table 2

*Item-Total Correlation, Coefficient Alpha if Item Deleted, and Cronbach's Alpha Coefficient for the Emotional Stressors in Children (ESCA) Domain*

| Domain : Emotional Stressors in Children (ESCA) | Corrected item-total correlation | Cronbach's alpha if item deleted |
|---|---|---|
| 7. A complex mixture of trauma and grief (PTSD) | .804 | .884 |
| 8. The effects of deployment stressors | .540 | .938 |
| 9. Children's reaction to parental deployments | .818 | .881 |
| 10. Families who experience long and repeated deployment | .890 | .865 |
| 11. Deployed to combat zones were their lives are threatened | .837 | .877 |

Table 3

*Item-Total Correlation, Coefficient Alpha if Item Deleted, and Cronbach's Alpha Coefficient for the Planning Scale*

| Domain: The Deployment Cycle (TDC) | Corrected item-total correlation | Cronbach's alpha if item deleted |
|---|---|---|
| 13. The Deployment Cycle | .945 | .916 |
| 14. The Deployment Cycle Process | .863 | .941 |
| 15. When physical separations become more stressful | .948 | .916 |
| 16. The New Emotional Cycles of Deployment | .776 | .968 |

Table 4

*Item-Total Correlation, Coefficient Alpha if Item Deleted, and Cronbach's Alpha Coefficient for the Intervention Strategies for Teachers (IST)*

| Domain: Intervention Strategies for Teachers (IST) | Corrected item-total correlation | Cronbach's alpha if item deleted |
|---|---|---|
| 17. Using role-play to improve students' school connectedness | .642 | .965 |
| 18. Teachers involving themselves in deployment issues. | .868 | .965 |
| 19. Administrators can ensure that someone is there for students. | .911 | .952 |
| 20. Talk to your students in terms they can understand. | .916 | .945 |
| 21. Teachers should consider a referral. | .874 | .949 |
| 22. Educators are an important and valuable resource. | .907 | .951 |
| 23. Recognize that it is natural to feel hurt and angry. | .808 | .955 |
| 24. Second only to family, schools are a stabilizing force. | .821 | .954 |

Table 5

*Item-Total Correlation, Coefficient Alpha if Item Deleted, and Cronbach's Alpha Coefficient for the Sociomoral Atmosphere of Children (TSAC)*

| Domain : Sociomoral Atmosphere of Children (TSAC) | Corrected item-total correlation | Cronbach's alpha if item deleted |
|---|---|---|
| 25. The Sociomoral atmosphere entails our conviction. | .855 | .644 |
| 26. Adults determine the sociomoral atmosphere. | .646 | .848 |
| 27. Parents can enhance or impede the development of a child. | .648 | .846 |

The researcher also analyzed the four domains of the military deployment tutorial during the main research study. Those domains are: Emotional Stressors for Children and Adults (ESCA), The Deployment Cycle (TDC), The Sociomoral Atmosphere of Children (TSAC), and Intervention Strategies for Teachers (IST). Alpha internal consistency reliability coefficients were computed for each of the four domains. Results are reported in Tables 13, 14, 15, and 16.

## Research Design

The study used a mixed methods two group pretest/posttest to determine the effectiveness of the online intervention tutorial. The researcher investigated overall teacher knowledge and included both DoDEA and public schools as the unit of analysis. Teacher knowledge of the two subgroups identified as DoDEA teachers and public school teachers was also determined. With the third research question the tutorial was examined for pretest posttest differences by the four domains: Emotional Stressors for Children and Adults (ESCA), The Deployment Cycle (TDC), The Sociomoral Atmosphere of Children (TSAC), and Intervention Strategies for Teachers (IST). Research questions four and five were open ended questions designed to garner teacher perceptions of relevancy and benefits of the online tutorial. The mixed methods design was selected because many research questions and combinations of questions are best and most fully answered through quantitative and qualitative research solutions (Johnson & Onwuegbuzeie, 2004).

### Independent and Dependent Variables

The online military deployment tutorial served as the independent variable. A categorical or nominal level of measurement was used for the four domains: Emotional

Stressors for Children and Adults (ESCA), The Deployment Cycle (TDC), The Sociomoral Atmosphere of Children (TSAC), and Intervention Strategies for Teachers (IST).

The dependent variable was teacher knowledge with a continuous or ratio level of measurement. The knowledge score was the number of items correct.

## Research Procedures

### Institutional Review Board (IRB)

To complete the study, Institutional Review Board (IRB) approval was applied for and granted. The researcher secured exempt status for the study (see Appendix 3).

### Data Collection

Data were collected anonymously using an online an online tutorial. Data collection began October, 2010 and continued until January, 2011. A link to the information letter and the survey was provided in the email. DoDEA and public school teacher participants were informed of the procedures including the opportunity to opt-out at any time (see Appendix 1). The information letter also insured respondents that neither their personal identity nor the identity of their school would be released in the study. By clicking "I Agree," the participant was automatically directed to the welcome page for the first phase to the Military Deployment Tutorial. A follow-up email was sent every two weeks until the end of October, 2011. By January, 2011 the researcher closed the online survey and ended the data collection.

## Statistical Analysis

The researcher utilized the statistical analysis procedures of descriptive statistics and Analysis of Variance (ANOVA) programs in the Statistical Package for the Social Sciences (PASW Statistics) Version 18 (Norusis & SPSS, 2010).

# CHAPTER 4. RESULTS

## Introduction

The purpose of this exploratory study was to examine teacher knowledge relating to military deployment effects on military children and families through an online military deployment tutorial for DoDEA and public school teachers. The researcher wanted to determine whether teacher knowledge increased after participating in an online tutorial and if the participants found the military deployment knowledge and online tutorial to be beneficial for their profession. The independent variable was the military deployment tutorial and included the following four domains:

- Emotional Stressors for Children and Adults (ESCA)
- The Deployment Cycle (TDC)
- The Sociomoral Atmosphere of Children (TSAC)
- Intervention Strategies for Teachers (IST)

The dependent variable was the measured change of teacher military deployment knowledge across these four domains and was provided by the pre-test, tutorial, post-test design.

## Research Questions

These research questions were generated from the knowledge gathered from the review of the literature.

1. Is there a significant difference in overall teacher knowledge of military deployment given the pretest, tutorial and posttest design?

2. Is there a significant difference in teacher knowledge of military deployment given the pretest, tutorial and posttest design between public and DoDEA teachers?

3. Given the pretest, tutorial and posttest, is there a significant difference in teacher knowledge of the Emotional Stressors for Children and Adults (ESCA), The Deployment Cycle (TDC), The Sociomoral Atmosphere of Children (TSAC), and Intervention Strategies for Teachers (IST)?

4. Did participants gain knowledge in regards to military deployment? Was the Military Deployment Tutorial relevant to their teaching occupations?

5. Did it appear that online tutorials are beneficial as a public service to educate participants and raise awareness of military deployments?

Descriptive statistics were used to analyze basic demographic information relative to teachers in DoDEA and public school settings. A repeated measures analysis of variance (ANOVA) was used to explore the relationship of overall teacher knowledge in regards to military deployment issues and to investigate if there was a difference in knowledge between the pre-test and post-test when examining the two groups of teachers, i.e. public and DoDEA. A repeated measures ANOVA was also used to determine the relationship of teacher knowledge from the tutorial in the four domains: Emotional Stressors for Children and Adults (ESCA); The Deployment Cycle (TDC); The Sociomoral Atmosphere of Children (TSAC); and Intervention Strategies for Teachers (IST).

Finally, respondents were asked their perceptions of the following questions: Did the online tutorial knowledge offered them additional insights in regards to military deployment, was it relevant to their teaching occupation, and does it appear that online tutorials are beneficial as a public service to educate participants and raise awareness of military deployments.

## Description of the Population

The Human Resources Office for one public school system and one DoDEA school system were asked to provide information concerning the number of certified teachers currently employed. The public school system had 355 certified teachers. Since the DoDEA school system did not have a high school assigned to its system, the researcher eliminated 103 teachers assigned to the public school system's high school from the population, which brings the public school systems population to 252 certified teachers. The DoDEA school system had 325 certified teachers in their population. However, the principal from a school within DoDEA's population consisting of 22 teachers decided not to participate in the study and opted out. This brings the DoDEA population to 303. The overall number of certified teachers receiving email invitations was 555.

An online survey, The Military Deployment Tutorial, described in Chapter 3, was sent via email to all certified teachers within the DoDEA and the public school system. A total of 118 respondents participated in the online tutorial and therefore represented the sample population for this study. The completion rate for the two school systems was fairly even. DoDEA attained a slightly higher number of respondents who completed the tutorial ($n$ = 67) than the public school district ($n$ = 51). The public school systems

completion rate was 20% (51 out of 253 certified teachers) and DoDEA's completion rate was 22% (67 out of 303 certified teachers). Overall, the completion rate for this study was 21% (118 out of 555).

For gender, the public school system had 9.8% (*n* = 5) males and 88.2% (*n* = 45) females. DoDEA had 16.4% (*n* = 11) males and 83.6% (*n* = 56) females. The gender of the public and DoDEA systems appeared to be similar.

Table 6

*Frequency and Percentages for Respondents by Gender (n=118) Given a Pre-test, Tutorial, Post-test Design*

| | Gender | |
|---|---|---|
| School System | Female | Male |
| Public | 45 | 5 |
| | 88.2% | 9.8% |
| DoDEA | 56 | 11 |
| | 83.6% | 16.4% |

*Note.* Although one case from the public school system was missing demographic data, the researcher included the case since the case was identified as being linked by an External Reference Number (pretest) and a Response Identification Number (posttest). Therefore, n = 51 for the public school system.

For ethnicity preference, the public school system indicated 74.5% (*n* = 38) Caucasian teachers and 23.5% (*n* = 12) African American teachers. The DoDEA school system indicated 74.6% (*n* = 50) ethnicity preference for Caucasian, 17.9% (*n* = 12)

African American, 6.0% (*n* = 4) Hispanic teachers, and 1.5% (*n* = 1) for other (Native American/Caucasian). These findings indicated that for ethnicity preference, DoDEA and the public school system were similar.

Table 7

*Frequency and Percentages for Respondents by Ethnicity (n=118) given a Pre-test, Tutorial, Post-test Design*

| | Ethnicity | | | |
|---|---|---|---|---|
| School System | African American | Hispanic | White | Other |
| Public | 12 | 0 | 38 | 0 |
| | 23.5% | 0.0% | 74.5% | 0.0% |
| DoDEA | 12 | 4 | 50 | 1 |
| | 17.9% | 6.0% | 74.6% | 1.5% |

*Note.* Although one case from the public school system was missing demographic data, the researcher included the case since the case was identified as being linked by an External Reference Number (pretest) and a Response Identification Number (posttest). Therefore, n=51 for the public school system.

For teachers earning advanced degrees (Masters, Educational Specialist, Doctor of Education or Doctor of Philosophy), 83.6% (*n* = 56) for DoDEA earned advanced degrees. The public school system participants who earned advanced degrees was 68.7% (*n* = 35).

Table 8

*Frequency and Percentages for Respondents by Highest Degree (n=118) given a Pre-test, Tutorial, Post-test Design*

| | Highest Degree | | | |
|---|---|---|---|---|
| School System | Bachelors | Masters | Educational Specialist | Doctorate |
| Public | 15 | 29 | 6 | 0 |
| | 29.4% | 54.9% | 11.8% | 0.0% |
| DoDEA | 11 | 29 | 22 | 5 |
| | 16.4% | 43.3% | 32.8% | 7.5% |

*Note*. Although one case from the public school system was missing demographic data, the researcher included the case since the case was identified as being linked by an External Reference Number (pretest) and a Response Identification Number (posttest). Therefore, n = 51 for the public school system.

The public school system participants had 70.6% (*n* = 36) of teachers indicate that they worked 20 years or less in their current profession while 52.3% (*n* = 35) of DoDEA worked for 20 years or less in their current profession.

Table 9

*Frequency and Percentages for Respondents by Experience (n = 118) given a Pre-test, Tutorial, Post-test Design*

| | Experience | | | |
|---|---|---|---|---|
| School System | Less than 10 years | 10 to 20 years | 20 to 30 years | More than 30 years |
| Public | 16 | 20 | 11 | 3 |
| | 31.4% | 39.2% | 21.6% | 5.9% |
| DoDEA | 20 | 15 | 21 | 11 |
| | 29.9% | 22.4% | 31.3% | 16.4% |

*Note*. Although one case from the public school system was missing demographic data, the researcher included the case since the case was identified as being linked by an External Reference Number (pretest) and a Response Identification Number (posttest). Therefore, n = 51 for the public school system.

In terms of age, 17.6% (*n* = 9) of the public school system indicated they were 50 years of age or older. In contrast, 46.3% (*n* = 31) of the DoDEA school system reported they were 50 years or older. Given the response from the two school systems, one could infer that teachers in the DoDEA school system are much older than the public school system (27.5%, *n* = 14, had 20 or more years of experience).

Table 10

*Frequency and Percentages for Respondents by Age (n=118) given a Pre-test, Tutorial, Post-test Design*

| | Age | | | |
|---|---|---|---|---|
| School System | 20 to 30 years | 30 to 40 years | 40 to 50 years | More than 50 years |
| Public | 5 | 15 | 21 | 9 |
| | 9.8% | 29.4% | 41.2% | 17.6% |
| DoDEA | 6 | 10 | 20 | 31 |
| | 9.0% | 14.9% | 29.9% | 46.3% |

*Note*. Although one case from the public school system was missing demographic data, the researcher included the case since the case was identified as being linked by an External Reference Number (pretest) and a Response Identification Number (posttest). Therefore, n = 51 for the public school system.

Given the response from the two school systems it appears teachers in the DoDEA school system were older than teachers in the public school system and had more experience. These demographic findings appeared to confirm earlier studies conducted by Smrekar, et al. (2001), "These teachers [DoDEA] tend to have many years of teaching experience, high levels of education, and are fully qualified to teach their subjects" (p. 22).

The analysis of descriptive statistics highlights some of the similarities and differences between the DoDEA and public school system. Participants' age, and the number of advanced degrees earned by teachers appeared to be the most pronounced difference while other demographic variables seemed similar. The researcher

recommends further examination as to the extent that demographics between the two school systems might influence teacher knowledge relative to military deployment issues.

## Research Questions

### Overall Teacher Knowledge of Military Deployment given Pretest, Tutorial and Posttest

The first research question addressed the relationship among teachers' overall knowledge of deployment as measured by the pre-test measure of deployment knowledge, the given online tutorial, and the posttest measure of deployment knowledge. Means, standard deviations, and the results of the repeated measures ANOVA using within-subjects factor (overall deployment knowledge) was completed and are presented in Table 9. The null hypothesis for alpha was set at .05. Using the general linear/mixed model with one group factor, there was a statistically significant difference for knowledge (Wilks' $\lambda = 0.934$, $F$ (1, 116) = *8.218*, $p < .01$, $\eta^2 = .07$). Thus, the results were meaningful. The independent variable, the online military deployment tutorial, explains .93% of the variance. Teacher knowledge increased significantly in regards to the tutorial. Eta was reported at .66 and power was .81. The observed power was .81. The likelihood or probability of finding a statistically significant relationship when there is a true relationship between teacher military deployment knowledge and the online tutorial was 81%. This meant the researcher was reasonably sure the increase in military deployment knowledge was due to the online tutorial.

Table 11

*Means, Standard Deviations, Repeated Measures ANOVA, Eta and Power for Overall Military Deployment Knowledge (n=118) given a Pre-test, Tutorial, Post-test Design*

| | Pretest | | Posttest | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | F | Eta | P | Power |
| DoDEA School System | 9.33 | 1.64 | 11.13 | 8.39 | | | | |
| Public School System | 9.04 | 2.55 | 11.80 | 8.14 | | | | |
| Overall Military Deployment Knowledge | | | | | 8.22 | .66 | .005 | .81 |

**Overall Teacher Knowledge of Military Deployment between Public and DoDEA Teachers given the Pretest, Tutorial and Posttest**

The second research question addressed the relationships between the two distinct school systems overall knowledge of deployment as measured by the pretest measure of deployment knowledge, the given online tutorial, and the posttest measure of deployment knowledge. Means, standard deviations, and the results of the factorial repeated measures ANOVA using within-subjects factor (knowledge) was completed. The null hypothesis for alpha was set at .05. Using the general linear/mixed model with one group factor, the results from the statistical analysis reveal that there was not a statistically significant difference in teacher knowledge of military deployment issues given the pretest, the tutorial, and posttest between public school and DoDEA teachers (Wilks' $\lambda$ = 0.997, $F$ (1, 116) = *0.362*, p >.54, $\eta^2$= .003). Eta was .003. The likelihood or probability of finding a statistically significant relationship when there is a true relationship between teacher military deployment knowledge and the online tutorial was .09%. This means the

researcher cannot be reasonably sure as to whether there was a significant difference in teacher knowledge of military deployment between the two school systems given the pretest, tutorial and posttest design between public and DoDEA teachers.

Table 12

*Means, Standard Deviations, Factorial ANOVA, Eta and Power for Overall Military Deployment Knowledge (n = 118) given a Pre-test, Tutorial, Post-test Design*

| | Pretest | | Posttest | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | F | Eta | P | Power |
| DoDEA School System | 9.33 | 1.64 | 11.13 | 8.39 | | | | |
| Public School System | 9.04 | 2.55 | 11.80 | 8.14 | | | | |
| Overall Military Deployment Knowledge | | | | | .362 | .003 | .549 | .092 |

**Teacher Knowledge of Emotional Stressors for Children and Adults (ESCA), The Deployment Cycle (TDC), The Sociomoral Atmosphere of Children (TSAC) and Intervention Strategies for Teachers (IST) given the Pre-test, Tutorial and Post-test**

The third research question addressed the relationships of teacher knowledge among the four domains as measured by the pre-test measure of deployment knowledge, the given online tutorial, and the posttest measure of deployment knowledge. Means, standard deviations, and the results of the repeated measures ANOVA using within-subjects factors (knowledge) were completed.

Descriptive statistics for the means and standard deviations for teacher knowledge from the four domains revealed the following results. Emotional Stressors for Children

and Adults (ESCA) factor, the mean for the pretest was 2.4 answers scored correctly out of 5 questions with a standard deviation of 1.0 and mean for the posttest was 2.9 answers scored correctly out of 5 questions with a standard deviation of 2.1.

The null hypothesis for alpha was set at .05. Using the general linear/mixed model with a four group factor, there was a statistically significant difference for teacher knowledge of military deployment issues for the ESCA domain given the pretest, the tutorial, and posttest between public school and DoDEA teachers (Wilks' $\lambda = 0.5$, $F$ (1, 116) = *6.198*, $p < .014$, $\eta^2 = .05$). The independent variable, the online military deployment tutorial, explains .95% of the variance. Teacher knowledge increased significantly in regards to the tutorial. The observed power was .695. The likelihood or probability of finding a statistically significant relationship when there is a true relationship between teacher military deployment knowledge and the online tutorial is 70%. This meant the researcher was reasonably sure the increase in military deployment knowledge in the ESCA domain was due to the online tutorial.

Table 13

*Means, Standard Deviations, Repeated Measures ANOVA of the ESCA Domain, Eta and Power for Overall Military Deployment Knowledge (n = 118) given a Pre-test, Tutorial, Post-test Design*

| | Pretest | | Posttest | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | F | Eta | P | Power |
| Emotional Stressors in Children and Adults | 9.33 | 1.64 | 11.13 | 8.39 | | | | |
| Overall Military Deployment Knowledge | | | | | 6.198 | .050 | .014 | .695 |

Descriptive statistics for the means and standard deviations for teacher knowledge for The Deployment Cycle (TDC) domain revealed the following results. The mean for the pretest was .47 answers scored correctly out of 4 questions with a standard deviation of .58 and mean for the posttest was 2.4 answers scored correctly out of 4 questions with a standard deviation of 1.8. The null hypothesis for alpha was set at .05. Using the general linear/mixed model with a four group factor, there was a statistically significant difference for difference in teacher knowledge of military deployment issues for the TDC domain given the pretest, the tutorial, and posttest between public school and DoDEA teachers (Wilks' $\lambda = .508$, $F$ (1, 116) = *11.34*, $p < .014$, $\eta^2 = .492$). The independent variable, the online military deployment tutorial, explains .51% of the variance. Teacher knowledge increased significantly in regards to the tutorial. The observed power was 1.0. The likelihood or probability of finding a statistically significant relationship when there is a true relationship between teacher military deployment knowledge and the online

tutorial was 100%. This means the researcher was reasonably sure the increase in military deployment knowledge in the TDC domain was due to the online tutorial.

Table 14

*Means, Standard Deviations, Repeated Measures ANOVA of the TDC Domain, Eta and Power for Overall Military Deployment Knowledge (n=118) given a Pre-test, Tutorial, Post-test Design*

| | Pretest | | Posttest | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | F | Eta | P | Power |
| The Deployment Cycle | .4661 | .5800 | 2.4407 | 1.82 | | | | |
| Overall Military Deployment Knowledge | | | | | 113.34 | .050 | .001 | 1.000 |

Descriptive statistics for the means and standard deviations for teacher knowledge for The Sociomoral Atmosphere of Children (TSAC) domain revealed the following results. The mean for the pretest was 2.2 answers scored correctly out of 3 questions with a standard deviation of .82 and mean for the posttest was 1.6 answers scored correctly out of 3 questions with a standard deviation of 1.3. The null hypothesis for alpha was set at .05. Using the general linear/mixed model with a four group factor, there was a statistically significant difference for difference in teacher knowledge of military deployment issues for the TSAC domain given the pretest, the tutorial, and posttest between public school and DoDEA teachers. However, the results revealed that teacher knowledge significantly decreased on the posttest which is unusual given the fact that the tutorial was designed to increase teacher knowledge.

The independent variable, the online military deployment tutorial, explains .85% of the variance. Teacher knowledge decreased significantly in regards to the tutorial. The observed power was .994. The likelihood or probability of finding a statistically significant relationship when there is a true relationship between teacher military deployment knowledge and the online tutorial for the TSAC domain is 99%. Since participants' average scores were lower on the posttest, the researcher recommends that further studies are need in order to examine the effects of intervention strategies on teacher knowledge in the domain for Sociomoral Atmosphere of Children and Adults.

Table 15

*Means, Standard Deviations, Repeated Measures ANOVA of the TSAC Domain, Eta and Power for Overall Military Deployment Knowledge (n = 118) given a Pre-test, Tutorial, Post-test Design*

| | Pretest | | Posttest | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | F | Eta | P | Power |
| The Sociomoral Atmosphere of Children | 2.20 | .8223 | 1.602 | 1.30 | | | | |
| Overall Military Deployment Knowledge | | | | | 20.46 | .149 | .001 | .994 |

Finally, the descriptive statistics for the means and standard deviations for teacher knowledge from the four domains revealed the following results. Intervention Strategies for Teachers (IST) factor, the mean for the pretest was 4.08 answers scored correctly out

of 8 questions with a standard deviation of 1.4 and mean for the posttest was 4.38answers scored correctly out of 8 questions with a standard deviation of 3.49.

The null hypothesis for alpha was set at .05. Using the general linear/mixed model with a four group factor, there was no statistically significant difference in teacher knowledge of military deployment issues for the IST domain given the pretest, the tutorial, and posttest between public school and DoDEA teachers (Wilks' $\lambda = .993$, $F$ (1, 116) = *.780, p >.379,* $\eta^2 = 007$). Thus, the results were insignificant. The independent variable, the online military deployment tutorial, explains .99% of the variance. Teacher knowledge decreased significantly in regards to the tutorial. The observed power was .141. The likelihood or probability of finding a statistically significant relationship when there is a true relationship between teacher military deployment knowledge and the online tutorial was 14%. This means the researcher cannot be reasonably sure the increase in military deployment knowledge in the ESCA domain was due to the online tutorial.

Table 16

*Means, Standard Deviations, Repeated Measures ANOVA of the IST Domain, Eta and Power for Overall Military Deployment Knowledge (n = 118) given a Pre-test, Tutorial, Post-test Design*

| | Pretest | | Posttest | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | F | Eta | P | Power |
| Intervention Strategies for Teachers | 4.084 | 1.3623 | 4.388 | 3.488 | | | | |
| Overall Military Deployment Knowledge | | | | | .780 | .007 | .379 | .141 |

In general, with the exception of knowledge of Intervention Strategies for Teachers (IST) domain, the results from the on line Military Deployment Tutorial indicated that there was a statistically significant difference in teacher knowledge when using the military deployment tutorial as an intervention strategy. Power was very strong given the number of participants from both school systems, $n = 118$. In like manner, since participants' average scores were lower on the posttest for TSAC domain, the researcher recommends that further studies are need in order to examine the effects of intervention strategies on teacher knowledge in the domain for Sociomoral Atmosphere of Children.

## Participant Perceptions of Knowledge Gained in Regards to Military Deployment Knowledge

This mixed methods study also included questions designed to determine if teachers felt the online tutorial was beneficial for increasing knowledge about military deployment related issues. As part of the posttest, the researcher included a nine-question survey questionnaire where 2 of the 8 questions used a 5-point Likert scale (i.e., Strongly Disagree, Disagree, Agree, Strongly Agree, and Undecided). Two questions used a dichotomous scale with Yes and No response, and the remaining four questions were open-ended questions. The dichotomous and Likert scale findings used descriptive statistic to measure the frequencies and percentages of participant response. The researcher analyzed the open-ended questions from each individual case using the constant comparative approach (Glaser, 1965).

### The Information within the Tutorial is Relevant to My Occupation

This research question asked respondents to determine whether or not the tutorial was relevant to their teaching occupation. Fifty-seven percent (57%) of DoDEA teachers thought the tutorial was relevant to their occupation. A small portion, 6%, felt that the tutorial was irrelevant to their occupation. The public school system had a higher percentage of teachers suggesting the tutorial was relevant to their occupation. Sixty-seven percent (67%) indicated the information in the tutorial was relevant to their occupation. Only 2% of the public school system felt that the information was irrelevant. A portion of respondents, 37% for DoDEA, and 31% of the public school teachers did not make a selection even though the “Undecided” choice was included as a possible response. The researcher reported their data as missing.

Table 17

*Frequency and Percentages for Respondents by Relevancy (n = 118) given a Pre-test, Tutorial, Post-test Design*

| School System | Relevancy | | | | | |
|---|---|---|---|---|---|---|
| | *Strongly Disagree* | *Disagree* | *Agree* | *Strongly Agree* | *Undecided* | *(missing data)* |
| Public School | 2 | 0 | 23 | 10 | 0 | 16 |
| | 3.9% | 0.0% | 45.1% | 19.6% | 0.0% | 31.4% |
| DoDEA | 4 | 0 | 15 | 23 | 0 | 25 |
| | 6.0% | 0.0% | 22.4% | 34.3% | 0.0% | 37.3% |

*Note.* Some did not respond to this question. This also accounts for the 31.4 percent of the teachers in the public school system and 37.3percent of the teachers in the DoDEA school system not responding to this question.

**How Are You Going to Use This Knowledge in Your Profession?**

This question asked respondents to explain how teachers would use the information in their profession. Teachers expressed a desire to improve their awareness of deployment issues and wanted to use the information learned in the tutorial to improve classroom experiences for children who are subjected to deployment. A public school teacher wrote, "I will be more effective with my students that are going through a similar experience by assessing support within the school, maintaining ongoing communication with the caregiver and consistently be sensitive and supportive to my students." Another public school teacher stated, "Be mindful when dealing with students. I also think the sociomoral part can be used and thought about with any student even if their parent(s)

aren't deployed." A third public school teacher stated, "I feel I will be more sensitive to the needs of students of our military families. I would not mind serving as an adult mentor to students to help, "watch out" for their wellbeing." A DoDEA teacher stated, "I've printed out each component and will use with teachers in the form of Socratic seminars." Likewise, another DoDEA teacher wrote,

> It just reminds me to be much more aware of the state of mind of my students (& the parent left behind) and to act accordingly. I have always tried to be reassuring and positive to those students of deployed parents. I know that as a teacher, I can help make school a safe, happy, consistent, environment for those students who need that safe haven and extra support.

**What was the Most Important Content You Learned?**

Responses from teachers in regards to the most important content learned included being cognizant of children who have deployed parents, the amount of influence teachers have in the life of their students when a parent is deployed, knowledge of the deployment cycle, and the important roles school play for a child experiencing deployment issues. For example, a teacher from the DoDEA school system wrote, "Children are so fragile and we need to be very vigilant of their behavior when they have deployed sponsors. Another teacher from the DoDEA school system wrote, "The importance of the school on the child's development and wellbeing during times of the deployment is so critical." A third DoDEA teacher wrote, "I found it important to look for signs of stress. I will watch a child having issues with deployment, and will use this tutorial to help." A public school teacher wrote, "The school is a major factor in the students' life when they are experiencing deployment of a family member." Finally, a

public school teacher said, “I will go to school tomorrow and double check to see if I have military parents and if anyone is deployed.”

**Will the Information in the Tutorial Serve to Improve Your Knowledge of Deployment Issues?**

The mixed methods nature of the instrument (“YES, NO” dichotomous and open ended “WHY”) allowed the respondents to explicitly express their opinion as to why or why not the information in the tutorial serve to improve their knowledge of deployment issues. For instance, a DoDEA teacher stated that, “Yes. I know my students and families were going through a difficult time. This information helps me to see the various stages I their deployment cycles.” Here again, a DoDEA teacher stated,

> Yes. Sometimes we do not realize what these children are going through. They cannot focus on learning if they have other issues on their minds. There is a lot we can do to ease some of their pain and sadness. Thank you for bringing this to our attentions.

In like manner, a DoDEA teacher responded, “Yes. Before, I never really thought about there being any problems upon the deployed parents return. I guess I was of the opinion that “Dad’s home, and now everyone’s happy, but that is not always the case.” Not all comments considered the tutorial as containing important knowledge. One DoDEA teacher reflected,

> No. I am a veteran teacher in a time of war. I have first-hand knowledge about deployment issues. I have experienced parents injured and killed, a student suicide, student self-mutilation, parental neglect and abuse, families removed from housing following the death of the military

member, the separation and reintegration of soldiers into the family and the trauma that can occur, etc. There is little a tutorial I can provide that I have not already encountered regarding prolonged and repeated deployment.

Table 18

*Frequency and Percentages for Respondents by Improvement of Knowledge (n = 118) given a Pre-test, Tutorial, Post-test Design*

| | Improvement of Knowledge | | |
|---|---|---|---|
| School System | Yes | No | Missing |
| Public | 32 | 2 | 17 |
| | 62.7% | 3.9% | 33.3 |
| DoDEA | 34 | 5 | 28 |
| | 50.7% | 7.5% | 41.8 |

*Note.* Some teachers did not respond to this question. This also accounts for the 33.3 percent of the teachers in the public school system and 41.8 percent of the teachers in the DoDEA school system not responding to this question.

**What Did You Like Best About The Tutorial?**

This question asked for the respondent's opinion as to what they liked best about the Online Military Deployment Tutorial. The analysis of results from this question produced two prevailing themes, what respondents liked best about the instrument's

layout and design, and the content focusing on children of deployed parents. The following is an outline of the two themes that surfaced from this question.

First, teachers stated that they liked the instrument's layout and design such as the online aspects. Teachers stated that the instrument was straightforward and easy to navigate and many stated that the enjoyed the self-paced and the helpful hints. To illustrate, a teacher from the public school system wrote, "Straightforward and easy to navigate." A teacher from the DoDEA school system wrote, "The questions were broken up by sections and this was good." Teachers from both the public and DoDEA school systems wrote, "The hints [were helpful]." and "The pacing [was helpful]." A teacher from the public school system wrote, "That it was broken into sections that made it easier to focus on one part at a time. If all of the information had been at the beginning with the questions at the end, I am not sure how much I would have retained."

Second, teachers stated that they liked the idea that the content in the tutorial focused on children of deployed parents. The teachers liked the idea that the content was informative, educational, and concise. They liked the facts concerning deployment issues perceived it as a welcomed form of professional development. A teacher from the DoDEA school system wrote, "The tutorial was a worthwhile endeavor. It was reflective and focused while also being non-intimidating. Since I cannot recall having staff development on the consequences of repeated deployments on the military child, this was very welcomed!" A teacher from the public school system wrote, "Good information provided on deployment/issues." Another teacher from the DoDEA school system wrote, "Concise and easy to digest." A public school teacher wrote,

I thought it was helpful to find out specific information about deployments. I imagine in the military schools that the teachers know this information but it is not commonly known in a public school that does not have a high concentration of parents who are in the military.

Additional thoughts from DoDEA teachers included:

- "Going over information, then pretest, then going over info again then testing is a powerful way to teach but better yet, a powerful way to learn."
- "Questions were presented after information. It was great."
- "I liked the self-paced approach of the tutorial."

Respondents were asked to rate the self-paced feature. The results indicated 60% of DoDEA teachers liked the self-paced approach of the tutorial and 5% of the participants disagreed with the self-paced approach. The public school teachers indicated that 63% agreed with the self-paced approach and 2% of the participants indicated that they did not like the self-paced approach. A large portion, 37% for DoDEA and 31% of the public school respondents, did not make a selection. This suggests that in both DoDEA and public schools, almost two-thirds of the teachers liked the self-paced approach.

Table 19

*Frequency and Percentages for Pace (n=118) given a Pre-test, Tutorial, Post-test Design*

| | Pace | | | | | |
|---|---|---|---|---|---|---|
| School System | *Strongly Disagree* | *Disagree* | *Agree* | *Strongly Agree* | *Undecided* | *(missing data)* |
| Public School | 1 | 2 | 25 | 7 | 0 | 16 |
| | 2.0% | 3.9% | 49.1% | 13.7% | 0.0% | 31.4% |
| DoDEA | 2 | 0 | 24 | 16 | 0 | 25 |
| | 3% | 0.0% | 35.8% | 2% | 0.0% | 37.3% |

*Note.* Some teachers did not respond to this question. This also accounts for the 31.4 percent of the teachers in the public school system and 37.3 percent of the teachers in the DoDEA school system not responding to this question.

The tutorial also offered a HINT section to facilitate the teaching portion of the tutorial. Several teachers remarked that these HINTS were helpful. The results from this dichotomous yes/no question indicated 57% of the DoDEA school system respondents indicated “Yes” and 3% of the respondents indicated “No.” For the public school system, 67% of the respondents indicated “Yes.” No one from the public school system responded “No.” The missing data from portions of the posttest may be an indicator that some participants were more interested in answering the pretest and posttest questions than the survey questionnaire. This behavior occurred quite often towards the end of the posttest.

Table 20

*Frequency and Percentages for Respondents by Hints (n = 118) given a Pre-test, Tutorial, Post-test Design*

| | Hints | | |
|---|---|---|---|
| School System | Yes | No | Missing |
| Public | 34 | 0 | 17 |
| | 66.7% | 0.0% | 33.3% |
| DoDEA | 38 | 2 | 27 |
| | 56.7% | 3.0% | 40.3% |

*Note.* Some teachers did not respond to this question. This also accounts for the 33.3 percent of the teachers in the public school system and 40.3 percent of the teachers in the DoDEA school system not responding to this question.

**What Did You Like Least?**

This question probed respondent's about what they liked least in regards to the Online Military Deployment Tutorial. A significant number of respondents explicitly stated that there was nothing that they did not like about the tutorial and expressed positive feedback even though the questions asked what did you like least. Mainly, teachers stated what they liked least about the instrument's layout and design was that it was too time consuming. A DoDEA teacher wrote, "What I like least was the length of the survey, just a little lengthy." A public school teacher wrote, "The amount of time required to complete the survey had an effect on how dedicated I was to reading the

passages." In addition, several teachers acknowledged that the instrument was too wordy. "

Teachers also stated found the content and terminology to be confusing and some of the passages were too long. A public school teacher responded and wrote, "Some of the terminology was a little difficult." Again, a public school teacher wrote, "Somewhat time consuming." Another public school teacher wrote, "Reading about research makes for a harder read."

## Conclusion

The results provided evidence of a statistically significant improvement in teacher knowledge after participating in the online Military Deployment Tutorial. The large effect size provided additional strength and confidence in the validity of the instrument. Comments from the survey portions of the instrument revealed that the online military tutorial is beneficial as a public service to educate participants and raise awareness of military deployments.

# CHAPTER 5. SUMMARY, DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

## Introduction

The purpose of this study was to investigate the relationship between an online military deployment tutorial and teacher knowledge related to military deployment. In addition, the researcher wanted to know if teachers would find professional development provided in an online tutorial to be relevant and useful in expanding their knowledge of military children. Chapter V discusses the development of the instrument and its potential uses. The chapter also provides a discussion of the implications, and recommendations for further research.

## Summary of Instrument Development

The researcher created an online tutorial to measure knowledge garnered from the literature. For this study, an online military deployment was designed for the purpose of informing and improving teacher knowledge relative to the four domains. The four domains were teacher knowledge of Emotional Stressors in Children and Adults (ESCA), teacher knowledge of The Deployment Cycle, (TDC), teacher knowledge of Intervention Strategies for Teachers (IST), and teacher knowledge of The Sociomoral Atmosphere of Children (TSAC). The four domains also represented the empirical framework of existing studies relative to military deployments, deployment stressors, and child development theories (Batten, et al., 2009; Booth, et al., 2007; Chandra, Lora-Cinisomo,

Jaycox, Tanielian, & Rachel, 2010; Chartrand, Frank, White, & Shape, 2008; DeVries, 2004; Engel, Gallagher, & Lyle, 2008; Figley & Nash, 2007; Giroux & Purpel, 1983; Piaget, 1954/1981).

The software used to develop the instrument was QuestionPro Survey Software, Corporate Edition. QuestionPro is a web-based software made available by purchasing an online subscription (QuestionPro, 2011). The QuestionPro subscription allowed the researcher to create and distributing the instrument to participants in public and DoDEA school systems. The data files were downloaded from QuestionPro and entered the into the researchers PASW Statistics 18 statistical software where the researcher generated results for the research question using descriptive statistics and repeated measures factorial ANOVAs.

The pretest and posttest contained 20 multiple-choice questions each and assessed teacher knowledge regarding military deployment issues. The pretest served as respondents' baseline data while the posttest measured the effectiveness of the military deployment tutorial. The study used a mixed methods two-group pretest/posttest to determine the effectiveness of the intervention strategy relating to teacher knowledge of military deployment issues. The first phase of the instrument was the pretest; the military deployment tutorial/posttest represented the second phase of the instrument. In addition to the 20 multiple-choice questions, the instrument included 6 multiple-choice demographic questions and 4 open-ended survey questions, 2 five-point Likert scale, and 2 dichotomous (Yes, or No) questions.

The panel of experts consisted of a college professor, a public school counselor, and a school psychologist working for a DoDEA school system who is also a retired

military service member. The researcher used the content validity process to review the test items and to insure that the test items adequately sampled the four domains (Gay, 1996; Ross & Shannon, 2008).

In order to judge the validity of the instrument, a pilot test was conducted within the geographic location where the sample population was selected. Given the dichotomous nature of the instrument, the Kuder-Richardson 20 was used to measure reliability. The alpha coefficient for the 20 item instrument was .978 and suggested the instrument had relatively high internal consistency.

## Summary and Discussion of Demographic Findings

The Human Resource Office for the public school system and the DoDEA school system supplied the information pertaining to the number of certified teachers currently employed in the two school systems. The public school system had 355 certified teachers and the DoDEA school system had 325 certified teachers in their population. The DoDEA system had no high school so the high school within the public system was also removed from the study. This eliminated 103 teachers from the public school population. The researcher sent 252 invitations to the public school system teachers and 303 email invitations to the DoDEA system. In all, 555 email invitations were sent to the two school systems.

A total of 118 respondents participated in the online tutorial and therefore represented the sample population for this study. The completion rate for the two school systems was fairly even. DoDEA attained a slightly higher number of respondents who completed the tutorial ($n$ = 67) than the public school district ($n$ = 51). The public school systems completion rate was 20% (51 out of 253 teachers) and DoDEA's completion rate

was 22% (67 out of 303 teachers). Overall, the completion rate for this study was 21% (118 out of 555 teachers).

The participants were teachers from a public school district and a DoDEA school district located in the southeast region of the United States. The researcher analyzed one case from the public school system with missing demographic information. Otherwise, the researcher excluded participants with a pretest that could not be linked to a posttest.

For gender the participants ($n$ = 118) the public school system had 9.8% ($n$ = 5) male teachers and 88.2% ($n$ = 45) female teachers. The DoDEA school system had 16.4% ($n$ = 11) male teachers and 83.6% ($n$ = 56) female teachers. The sample population for gender was comparable for both the public and DoDEA school system. One of the 118 cases had missing demographic information but had a complete pre-test and post-test data so the researcher was able to use that case in reporting findings from the study.

The findings for ethnicity preference revealed the public school system ethnicity as 74.5% ($n$ = 38) Caucasian teachers and 23.5% ($n$ = 12) African American teachers. The DoDEA school system reported ethnicity preference as 74.6% ($n$ = 50) Caucasian, 17.9% ($n$ = 12) African American, 6.0% ($n$= 4) Hispanic teachers, and 1.5% ($n$ = 1) for Other. When respondents were asked to select the highest degree obtained, the participants earning advanced degrees (Masters, Educational Specialist, Doctor of Education and Doctor of Philosophy), 83.6% ($n$ = 56) for DoDEA earned advanced degrees. The public school system participants who earned advanced degrees was 68.7% ($n$ = 35). This seems to indicate that DoDEA participants had approximately 15% more advanced degrees than public school system participants.

When asked to indicate how long have you worked in your current profession, the public school system participants had 70.6% ($n$ = 36) of its participants indicated that they worked 20 years or less in their current profession while 52.3% ($n$ = 35) of DoDEA worked for 20 years or less in their current profession. In contrast, 27.5% ($n$ = 14) of the public school system participants had 20 or more years of work experience while DoDEA participants had 47.7% ($n$ = 32). The work experience findings indicate that 20.2% of the teachers in the DoDEA school system had more years of experience in their current profession than their public school counterparts.

In response to age, participants from the public school system made known that 17.6% ($n$ = 9) were 50 years or older. In contrast, 46.3% ($n$ = 31) of the DoDEA school system indicated they were 50 years or older. Given the response from the two school systems, one could infer that teachers in the DoDEA school system are older than teachers in the public school system. Likewise, these two demographic findings, experience and age, appear to confirm earlier studies conducted by Smrekar, et al (2001) where the researchers make reference to DoDEA and suggested that, "These teachers tend to have many years of teaching experience, high levels of education, and are fully qualified to teach their subjects" (p. 22).

The analysis of findings from the descriptive statistics exposed demographic differences and similarities between the two school systems. For example, participants' age, experience, and the number of advanced degrees earned by teachers were the most pronounced and revealed that DoDEA teachers tended to be older, more experienced, and hold a higher percentage of advanced degrees than their public school contemporaries. The researcher recommends further examination as to the extent that demographics

between the two school systems might influence teacher knowledge relative to military deployment issues. Tables 2 through 7 in Chapter 4 included results from the seven demographic questions and provide the percentage and frequency of participation for the two school systems.

## Summary of Overall Findings: Teacher Knowledge of Military Deployment Through an Online Tutorial

The independent variable was the military deployment tutorial and included the following four domains:

- Emotional Stressors for Children and Adults (ESCA)
- The Deployment Cycle (TDC)
- The Sociomoral Atmosphere of Children (TSAC)
- Intervention Strategies for Teachers (IST)

The dependent variable was the measured change of teacher military deployment knowledge across these four domains and was provided by the pre-test, tutorial, post-test design. The statistical software PASW Statistics 18 was used to analyze the matched pair pretest and posttest format for quantitative data analysis. The following three questions explored overall teacher knowledge, teacher knowledge by type of school system, and teacher knowledge given the four domains of Emotional Stressors for Children and Adults (ESCA), The Deployment Cycle (TDC), The Sociomoral Atmosphere of Children (TSAC), and Intervention Strategies for Teachers (IST).

**Is There a Significant Difference in Overall Teacher Knowledge of Military Deployment given the Pretest, Tutorial and Posttest Design?**

There was a statistically significant difference ($p < .001$) in overall teacher knowledge. Here, the researcher wanted to know the relationship of teachers' overall knowledge of deployment related issues as measured by the pretest measure of deployment knowledge, online tutorial, and the posttest measure of deployment knowledge. Descriptive statistics of the means and standard deviations represented the number of questions scored correctly out of 20 questions. The pretest overall knowledge score for DoDEA revealed a mean score of 9.3 correct out of 20 questions with a standard deviation of 1.6 and public schools scored a mean of 9.0 correct out of 20 questions with a standard deviation of 2.5. For the posttest, the overall knowledge factor for DoDEA mean of 11.1 out of 20 questions with a standard deviation of 8.4. The public schools scored a mean of 11.8 with a standard deviation of 8.1.

In other words, the sample in this study for the DoDEA school system on average had an 11% increase in overall knowledge on the posttest after interventions while the public school system had an average increase of 14% increase in overall knowledge after interventions. Overall, both school systems knowledge scores increased significantly ($p < .001$), demonstrating that the information obtained from empirical and theoretical information gathered from the research and used to create the questions in this domain served to increase educator knowledge. Therefore, the online military tutorial when used as an intervention strategy to measure overall educator knowledge was effective.

**Is there a Significant Difference in Teacher Knowledge of Military Deployment given the Pretest, Tutorial and Posttest Design between Public and DoDEA Teachers?**

The findings revealed that there was not a statistically significant difference ($p > .54$) in teacher knowledge of military deployment issues given the pretest, the tutorial, and posttest between public school and DoDEA teachers. The second research question addressed the relationships between the two distinct school systems overall knowledge of deployment as measured by the pretest measure of deployment knowledge, the given online tutorial, and the posttest measure of deployment knowledge. This meant that the measurement of knowledge between the two schools systems were reasonably identical and the researcher could not be sure as to whether there was a significant difference in teacher knowledge of military deployment between the two school systems given the pretest, tutorial and posttest design between public school and DoDEA teachers.

The initial assumption was that due to the daily exposure of military deployment related issues by the DoDEA school system, the DoDEA school system would score higher on the pretest than the public school system. However, findings indicated that between the two school systems pretest scores were very similar at 9.3% for DoDEA and 8.4% for public school teachers. The findings further suggested that regardless of amount of exposure to military children and their families, teacher knowledge of military deployment issues between the public school and DoDEA school system were virtually the same. The researcher suggests that due to the relationships that are established on military installations between the military community and the DoDEA school systems, further research in this area is needed.

**Given the Pretest, Tutorial and Posttest, Is There a Significant Difference in Teacher Knowledge of the Emotional Stressors for Children and Adults (ESCA), The Deployment Cycle (TDC), The Sociomoral Atmosphere of Children (TSAC), and Intervention Strategies for Teachers (IST)?**

The third research question addressed the relationships of teacher knowledge among the four domains as measured by the pretest measure of deployment knowledge, the given online tutorial, and the posttest measure of deployment knowledge. There was a statistically significant difference *($p < .014$)* in teacher knowledge of military deployment issues for the ESCA domain given the pretest, the tutorial, and posttest between public school and DoDEA teachers. Descriptive statistics and standard deviations for the ESCA factor, yields an average score for the pretest was 2.4 answers scored correctly out of 5 questions with a standard deviation of 1.0 and average score for the posttest was 2.9 answers scored correctly out of 5 questions with a standard deviation of 2.1.

In essence, educator knowledge increased significantly in regards to the tutorial. Thus, the researcher was reasonably sure the increase in military deployment knowledge in the ESCA domain was due to the information obtained from empirical and theoretical information gathered from the research. There for, the online military tutorial when used as an intervention strategy to measure ESCA in teacher knowledge was effective.

For the TDC domain, there was a statistically significant difference *($p < .001$)* for difference in teacher knowledge of military deployment issues given the pretest, the tutorial, and posttest between public school and DoDEA teachers. Descriptive statistics for the means and standard deviations for teacher knowledge for The Deployment Cycle

(TDC) domain revealed that the average respondent score was almost zero. The mean for the pretest was .47 answers scored correctly out of 4 questions with a standard deviation of .58 and mean for the posttest was 2.4 answers scored correctly out of 4 questions with a standard deviation of 1.8

Teacher knowledge increased significantly for TDC from the pretest to the tutorial/posttest format. For that reason, the researcher can be reasonably sure that the increase in military deployment knowledge in the TDC domain was due to empirical and theoretical information gathered from the research used to create the questions for this domain and the online tutorial. The online military tutorial, when used as an intervention strategy to measure TDC in educator knowledge, appeared to be effective.

Findings for the TSAC domain also revealed that there was a statistically significant difference *($p < .001$)* for teacher knowledge of military deployment issues given the pretest, the tutorial, and posttest between public school and DoDEA teachers. Descriptive statistics for the means and standard deviations for teacher knowledge for TSAC domain revealed the following results. The mean for the pretest was 2.2 answers scored correctly out of 3 questions with a standard deviation of .82 and mean for the posttest was 1.6 answers scored correctly out of 3 questions with a standard deviation of 1.3.

This meant that although the results were statistically significant, the means reveal that the average scores for teacher knowledge significantly decreased on the posttest. This is atypical given the fact that the tutorial was created to be used as an intervention strategy and designed to increase teacher knowledge. The findings also suggested the

way the tutorial's intervention strategies were presented for the TSAC domain may be flawed given the unusual nature of the pretest and posttest results.

On the other hand, there was evidence respondents may not have taken this portion of the tutorial seriously. The reasons for this phenomenon seemed to emerge from the amount of time it takes participants to complete the pretest, read through the tutorial, and complete the posttest. For instance, a respondent from one school system scored 15 out of 20 answers correct in 12 minutes and 5 seconds on the pretest. Yet when given the posttest, the respondent scored 12 out of 20 answers correct in 7 minutes and 33 seconds. Evidence provided by QuestionPro online survey indicated that the average time for participation time for this online Military Deployment Tutorial was 15 minutes for the pretest and 22 minutes for the posttest. Examples of this behavior occurred on several occasions as the researcher disaggregated the data looking for possible explanations of the TSAC decrease in knowledge on the posttest. Although the findings yielded a statistically significant difference for teacher knowledge of military deployment issues given the pretest, the tutorial, and posttest between public school and DoDEA teachers it was a negative difference. The researcher cannot be certain that the TSAC domain can be used to measure teacher knowledge in the TSAC domain. The researcher suggests that further studies are needed to determine the effectiveness of the TSAC domain.

Lastly, there was no statistically significant difference ($p > .379$) in teacher knowledge of military deployment issues for the IST domain given the pretest, the tutorial, and posttest between public school and DoDEA teachers. For the Intervention Strategies for Teachers (IST) factor, the mean for the pretest was 4.08 answers scored

correctly out of 8 questions with a standard deviation of 1.4. The mean for the posttest was 4.38 answers scored correctly out of 8 questions with a standard deviation of 3.49.

For the IST domain, the increase in educator knowledge was extremely small in regards to the interventions used in the military deployment tutorial. Accordingly, the researcher cannot be reasonably sure that the increase in military deployment knowledge in the IST domain was due to the information obtained from empirical and theoretical information gathered from the research and used to create the questions for this domain. Therefore, the online military tutorial was ineffective when used as an intervention strategy to measure IST for educator knowledge.

**Teacher Perceptions of Military Tutorial: Content Knowledge and Structure of an On-line Tutorial**

**Did participants gain knowledge in regards to military deployment? Was the Military Deployment Tutorial relevant to their teaching occupations?** The open-ended portion of the survey included eight questions which followed the posttest. These questions were designed to gain a deeper understanding of the participants perceptions of the military deployment related content and the online design. Two of the eight questions used a 5-point Likert scale (i.e., Strongly Disagree, Disagree, Agree, Strongly Agree, and Undecided). Two questions used a dichotomous scale with Yes and No response, and the remaining four questions were open-ended questions. For the dichotomous and Likert scale questions the researcher used descriptive statistics and measured the frequencies and percentages.

First, the researcher was interested in teacher perceptions of the military deployment tutorial relevancy to occupation. The results showed that DoDEA had 57%

of its educators thought that the tutorial was relevant to their occupation. A small portion, 6%, felt that the tutorial was irrelevant to their occupation. The public school system had a somewhat high percentage, 67% indicating that the information in the tutorial was relevant to their occupation. Only 2% of the public school system felt that the information was irrelevant. A large portion, 37% for DoDEA, and 31% of the public school respondents did not make a selection even though the "Undecided" choice was included as response offered as a choice. The researcher reported these non-answers as missing data. This meant that 67% of the participants indicated that they either agreed or strongly agreed the information within the tutorial was relevant to their occupation.

**Did it appear that online tutorials are beneficial as a public service to educate participants and raise awareness of military deployments?** The researcher also wanted to know how teachers would use the knowledge from the tutorial in their profession. Teachers responded a willingness to be more supportive of students who are experiencing deployment issues. Teachers expressed a desire to improve their awareness of deployment issues concerning students, and using that knowledge to improve strategies in order to support students who are experiencing deployment issues.

Respondents stated that the knowledge will allow them to be more effective when dealing with students that are going through a similar experience and by evaluating support within their school, maintaining communication with the caregiver, and more sensitive and supportive to my students to the needs of their students. It was interesting to read the comments of one respondent who stated that the sociomoral atmosphere of children applies to any student regardless of the deployment status of the parent. One

respondent wrote, “I’ve printed out each component and will use with teachers in the form of Socratic seminars.” Another, respondent wrote,

> It just reminds me to be much more aware of the state of mind of my students (and the parent left behind) and to act accordingly. I have always tried to be reassuring and positive to those students of deployed parents. I know that as a teacher, I can help make school a safe, happy, and consistent environment for those students who need that safe haven and extra support.

Another area of interest was what teachers perceived as the most important content learned. Responses indicated the most important content learned was: the amount of influence teachers have in the life of their students when a parent is deployed; knowledge of the deployment cycle; the responsibility teachers felt towards the children of deployed parents and the important roles school play for a child experiencing deployment related concerns. For example, several responses from teachers indicated that children are fragile and teachers should be watchful of their behavior when they have deployed sponsors. Teachers also spoke of the school’s important role in regards to the child’s development and student well being during times of deployment. The teachers felt that school is a major factor in the life of students’ when they are experiencing deployment of a family member. The respondents expressed the need for teachers to be observant of student behaviors when military families are facing deployment issues. The emerging theme from this question revealed that educators perceive the role of the school and teachers as important factors for children of deployed parents.

Next the researcher asked teachers to report whether the information within the tutorial had served to improve their knowledge of deployment issues. The findings

revealed that 57% of the respondents selected “Yes” and 6% selected “No.” The remaining 37% failed to make a selection, and was counted by the researcher as missing data. For those teachers who selected “Yes” the following points were raised: the reading passages were detailed, to the point and easy to read; the tutorial would help them to understand the caretakers who provided for the students while dealing with the absence of a deployed family member; the tutorial would help teachers recognize what military children are going through during the various stages of the deployment cycles and the teachers also discovered that even though the service member has returned home safely, things at home are not always okay knowledge.

In contrast to the above, one teacher appeared to have a wide-range of experiences associated with military children and families during times of deployment. This teacher reflected:

> I am a veteran teacher in a time of war. I have first-hand knowledge about deployment issues. I have experienced parents injured and killed, a student suicide, student self-mutilation, parental neglect and abuse, families removed from housing following the death of the military member, the separation and reintegration of soldiers into the family and the trauma that can occur. There is little a tutorial can provide that I have not already encountered regarding prolonged and repeated deployments.

According to the evidence garnered from prior research and the close daily contact DoDEA teachers had to children of deployed families one could assume teachers within DoDEA school systems were likely to score higher on the pretest than public school teachers. However, findings indicated that between the two school systems,

DoDEA's pretest score was only 1% higher (9%) than the public school systems pretest score (8%). Yet, when measuring overall teacher knowledge, the DoDEA school system on average, had an 11% increase on the posttest after interventions. Comparatively, the public school system had an average increase of 14% on the posttest after interventions. Perhaps the differences in performance stemmed from individual teachers' willingness to approach the study with an open mind.

The analysis of the remaining open ended responses produced two prevailing themes in regards to the online tutorial. One theme concerned the content of the tutorial while the other theme involved design and layout. Both public and DoDEA school teachers thought the tutorial was helpful in providing content knowledge about military culture and deployment issues. This is a positive outcome because many public school systems are not familiar with military children and deployment issues because they lack high concentrations of parents in the military, because they lack exposure in teacher preparation programs or because school/school system professional development has not focused on military deployment. Teachers liked the content and reported it as informative, educational, and concise. Teachers from both school systems expressed that the online presentation of the material was a positive way to teach and learn. One participant stated "the tutorial is a powerful way to learn about military deployment and its effects on children".

The hints used during the instruction phase of the tutorial were helpful according to the teachers. The hints were designed to expand content knowledge and give additional information to the respondents that would help teachers determine the correct answer. A combined total of 61% of the public and DoDEA school system teachers

indicated that the knowledge provided during this phase was an important part of the tutorial. A small portion, 3%, of the teachers indicated the hints were not helpful. This small portion came from DoDEA teachers with none of the public school teachers indicating the hints were not helpful. The remanding 36% are accounted for as missing data and perhaps this should be seen as an indicator that some participants were more interested in answering the pretest and posttest questions than in the questionnaire design. It could also be seen as not having an interest in responding to the question concerning the helpfulness of the hints. Criticisms from the 118 teachers in regards to the tutorial content were almost nonexistent. Some felt the terminology was difficult.

Design and layout positives included comments such as “Great survey.”; “It was okay.” and “Nothing was wrong with the survey.” One person commented “I liked the self-paced features of the survey.” The results indicated 60% of DoDEA teachers liked the self-paced approach of the tutorial and 5% of the participants disagreed with the self-paced approach. The public school teachers indicated that 63% agreed with the self-paced approach and 2% of the participants indicated that they did not like the self-paced approach.

Teachers also seemed to like the self-paced approach of the survey design. According to the responses 68% of the public school system either agreed or strongly agreed whereas, 62% of the DoDEA system agreed or strongly agreed they liked the self paced approach of the tutorial. Although one of the Likert scale choices was labeled “Undecided”, it was difficult for the researcher to determine why 34% participants failed to make a selection rather than mark “Undecided”.

Most criticisms in regards to the design and layout were about the length of the survey. In fact, it was the most often expressed concern with 57% of the respondents making comments about the time factor involved in completing the instrument. Participants wanted a shorter, less time consuming instrument. One respondent stated that the amount of time required to complete the survey had an effect on how dedicated they were when reading the passages. "I got tired. I lost interest and just wanted to finish. It was too long."

## Discussion and Implications

Apps (1985) states that, "A well developed working philosophy can provide the educator with an attitude that requires all of the pieces in the educational situation to be considered" (p. 4). Similarly, the implications and recommendations outlined in this study are pieces in the educational situation and are worthy of consideration as tools for improving teacher knowledge relative to military children and military deployment issues.

This section presents information pertaining to how the findings related to the literature, and implications of them for practice. The researcher designed an online tutorial focused on enhancing teacher knowledge of military deployment related issues. The findings in the study provided evidence supporting an online military deployment tutorial as a beneficial professional development tool. In open ended responses, most provided favorable comments about the use of the online military tutorial and the content of the tutorial. Respondents suggested the tutorial content was educational, concise and not difficult to access or navigate. Overall teacher knowledge within the two school districts increased significantly, $p < .001$. Apparently it made no difference as to whether

the teacher represented the public school system or DoDEA. The tutorial made a significant positive contribution to teacher knowledge of the military child and deployment.

The fundamental theories behind the information used to create the ESCA domain (Chandra, et al., 2010; DeVries & Zan, 1994; Dyregrov, 1993; Huebner, Mancini, Wilcox, Grass, & Crass, 2007; Piaget, 1954/1981) served to inform and create the knowledge questions for teachers in the ESCA domain ($p < .014$). In this portion of the tutorial, the literature drew parities of stressors which manifest in the lives of military personnel. These manifestations might influence the emotional, social, and academic behaviors of military dependent children. Empirical studies are urgently needed to broaden our understanding of the stressors of combat and deployment, as well as the military cultural contexts within which operational stress is experienced (Nash, 2007). For these reasons, teacher knowledge of ESCA issues is very important.

Theories behind the information used to create the TDC domain (Booth, et al., 2007; DoD, 2008; Morse, 2006) served to inform the creation of military deployment knowledge for teachers. In the TDC dimension, the knowledge gained was a significant increase ($p < .014$). The literature in this segment places emphasis on psychological and emotional stressors of military family and deployment issues. This study used the Department of Defense literature on the Deployment Cycle because it covers all branches of the military services. In this context, the deployment cycle is a continuous process, advancing through four phases, beginning and ending with your regular military life at home (Department of Defense, 2008a). In addition to the Deployment Cycle there is the Emotional Cycles of Deployment. The Emotional Cycles explain how individuals move

through emotional stages when trying to cope with a deployment. Teacher knowledge of the two types of deployment cycles will enable educators to observe students' symptoms so that administrators and teachers can adjust their instruction and classroom management styles in order to mitigate deployment stressors that the child may be experiencing.

Theories behind the information used to create the TSAC domain (Chandra, et al., 2010; DeVries & Zan, 1994; Piaget, 1954/1981; Schubert, 1986) served to inform military deployment knowledge for teachers in the TSAC domain. Although the results for the TSAC domain was statistically significant, ($p < .001$), the results revealed the average score for teacher knowledge significantly decreased on the posttest. This is unusual given the fact that the tutorial was created to be used as an intervention strategy and designed to increase teacher knowledge.

Since participants' average scores were lower on the posttest, the researcher recommends that further studies are needed in order to examine the effects of intervention strategies on teacher knowledge in the domain for Sociomoral Atmosphere of Children and Adults. Nonetheless, the empirical framework used to construct the TSAC domain was based on the analysis of relationships between existing studies relative to military deployment, deployment stressors, and child development theories (Batten, et al., 2009; Booth, et al., 2007; Chandra, et al., 2010; Chartrand, et al., 2008; DeVries, 2004; Figley & Nash, 2007; Giroux & Purpel, 1983; Piaget, 1954/1981). Further, the classroom sociomoral atmosphere is thought to be an important aspect of the school experience and has many implications for child development (Durham, 2007).

The sociomoral atmosphere is similar to the hidden curriculum in that it is comprised of the entire network of relationships within a classroom. For example, the child's relationship with the teacher, peers, academics, and rules (DeVries & Zan, 1994) can all be considered as part of this sociomoral atmosphere. The sociomoral atmosphere of military children extends beyond what children learn in the classrooms. It is embedded in all aspects of their daily lives and this includes their family, their culture, their school, and the neighborhood they live in. Thus, knowledge of the military child's sociomoral atmosphere is a very important component of teacher knowledge as it relates to military deployment. The researcher recommends that further studies are needed in order to examine the effects of intervention strategies on teacher knowledge in the sociomoral atmosphere dimension.

Theories behind the information used to create the IST domain, (Blum, 2004; Educational Opportunities Directorate of the Department of Defense, 2003) served to inform teachers of military deployment knowledge in the IST domain. Yet, the amount of increase in educator knowledge for the IST domain was extremely small and was not statistically significant. The literature in this domain placed emphasis on resilience, school connectedness, and intervention strategies for teachers and administrators. For military children, who may move as many as 15 times before they graduate from high school, a school environment where they feel secure and ready to learn is critical (Blum, 2004). Educators play a critical role in the life of each student. Military children are no different (Educational Opportunities Directorate of Department of Defense, 2003). Teachers are an important and valuable resource and support as the children affected by deployment learn to cope and grow during this time of change (Educational Opportunities

Directorate Department of Defense, 2003). Teachers must also remember to rely on the wisdom and knowledge of childhood development to help each student and to assess their individual needs and the needs of the other children in your classroom (Educational Opportunities Directorate of Department of Defense, 2003). For these reasons, the implications listed further underscored the important roles educators play in the lives of all children and why teacher knowledge of military deployment issues are so important.

The comments from the open-ended responses suggested that participants gained knowledge in regards to military deployment issues and found the tutorial to be relevant to their teaching occupations. Also, the evidence from the open-ended responses demonstrated that online tutorials are beneficial as a public service to educate participants and raise awareness of military deployment issues. These findings established positive relationships between the online tutorial and the knowledge teachers gained from participating and produced considerable implications towards improving teacher knowledge. Thus, opportunities exist for school administrators to capitalize on the merits of this study and develop similar related tutorials which cover a broad range of topics. University teacher preparation programs throughout the United States could do the same.

Furthermore, there may be additional implications for school administrators if one chose to separate the four domains used in this online military tutorial and create a separate topic for each domain in order to impart and evaluate knowledge for a specific domain. For example, school administrators might consider developing a tutorial to improve and assess teacher knowledge concerning intervention strategies for teachers in regards to military deployment issues or develop a tutorial to improve and assess teacher knowledge with reference to the sociomoral atmosphere of the military children.

Administrators may also develop shorter and less time consuming professional development tutorials for teachers as an on-going professional development policy or strategy.

Once sound instruments similar to the tutorial used for this study are developed, school administrators at the elementary, secondary, and higher education levels may consider using it as a model for the development of tutorials other than military deployment topics. The implications of such an initiative will also produce opportunities for school administrators in public and DoDEA school systems to participate in one of our country's top priorities, the care and support of military families. Considering the amount of emotional stress that military families endure, we are fortunate to have programs that advocate for military children and families. For example, a White House report was recently published in response to Presidential Study Directive/PSD-9. This report is a government-wide, interagency effort, to care for and support military families, and designated a top national security policy priority (Interagency Policy Committee, 2011). This Interagency Policy Committee (2011), in paragraph 2.2.2 further states that, "DoD will accelerate professional development programs to inform school staff of the academic challenges facing military children."

These professional development programs include training modules and sessions on special education, and an interactive educational resource for military families, military leaders, and school leaders, titled *Students at the Center* (p. 1). According to DoDEA (2011), *Students at the Center* is an online resource that provides information on important policies, procedures, and best practices to families, military leaders, and school leaders that are critical to supporting the needs of military families'education (DoDEA).

The implications for school administrators to develop online tutorials will give them opportunities to share and collaborate with education professionals who represent Students at the Center initiatives. This will also give school administrators the opportunity to create, share, and participate in one of our Nation's top priorities, to care for and support military families.

Response from the Sociomoral Atmosphere dmain indicated that teachers thought that the sociomoral part can be useful with any student, even if the child's parent or parents were not deployed. The implications from this response suggest that school administrators might consider constructing a tutorial to inform and assess teacher knowledge for inner city (gang related issues), migrant children, and single parent families. Thus, knowledge of the child's sociomoral atmosphere is a very important component of teacher knowledge. Furthermore, the sociomoral atmosphere of military children is unique and requires additional attention from teachers and school administrators. The implications of creating tutorials designed to address struggles of migrant and inner city children demonstrates that online tutorials are beneficial as a public service to heighten teacher and school administrator awareness.

Therefore, opportunities exist for public and DoDEA school administrators to use this tutorial as a model and develop not only deployment related tutorials, but also tutorials that represent a vast array of topics designed to inform and improve teacher knowledge. The fact that this military deployment tutorial improved overall teacher knowledge, and that teachers find the tutorial to be relevant to their occupation presents opportunities for school administrators to use this tutorial as a model for professional development. The leadership implications and information listed above give public and

DoDEA school administrators the potential to probe deeper and expand the content of this study. They can also go beyond the scope of military deployment issues and explore the development of online tutorials for other academic areas of interest.

## Further Studies

The resulting recommendations for further study are based on the findings and discussion of this study.

1. The researcher recommends further examination as to the extent that demographics between the two school systems might influence teacher's willingness to gain knowledge relative to military deployment issues.
2. Teachers who teach at military installations and surrounding areas are exposed to military culture more than public school teachers who are located beyond a thirty mile radius from military installations. The researcher suggests that due to the relationships that are established on military installations between the military community and the DoDEA school systems, further research in this area is need as to determine why the knowledge factor between the public school system and the DoDEA school system did not yield significant results in some areas.
3. The posttest mean score for knowledge was significantly lower in the domain for Sociomoral Atmosphere of Children and Adults. The researcher recommends that further studies are needed in order to examine the effects of online interventions for teacher knowledge.

## Conclusion

This mixed methods two-group pre/posts, evaluated teacher knowledge relating to military deployment effects on military children through an online military deployment tutorial. The results provided evidence of a statistically significant improvement in teacher knowledge after participating in the online Military Deployment Tutorial. The large effect size provided strength and confidence in the validity of the instrument. Comments from the survey portions of the instrument revealed that the online military tutorial is beneficial as a public service to educate participants and raise awareness of military deployments.

Measuring teacher knowledge in The Sociomoral Atmosphere of Children (TSAC) domain after interventions revealed that there was a statistically significant difference. However, the mean for the pretest was 2.2 answers scored correctly out of 3 and the mean for the posttest was 1.6 out of 3. The researcher found it unusual that the mean for the pretest was actually higher than the mean for the posttest when measuring teacher knowledge for TSAC) domain after interventions. As a result, TSAC teacher knowledge decreased after interventions rather than increased. The reasons for this event seemed to emerge from the amount of time participants take to complete the pretest, read through the tutorial, and complete the posttests. The analysis of the eight items to garner more in-depth knowledge in regards to the online tutorial indicated that the majority of participants found the tutorial to be helpful, informative, and relevant to their current occupation.

A few years after September 11, 2001, I distinctly remember a soldier and his wife walking their son to school. It was common to see parents accompanying their

children, since at this particular school, parental involvement was very high. As we exchanged greetings, the mother explained that her husband's unit was to deploy that day, and they wanted to walk their son to school since it would be a while before the student would see his father again. As the parents helped their son unpack his book bag, the soldier and I had a casual conversation regarding his preparation for deployment. I explained to the father that I had a son scheduled for deployment soon. The father looked at me and said, "I want you to do me a favor, you look out for my son while I'm gone, and I'll look out for yours while I'm in Iraq." The conversation became silent and without saying a word, we all knew that their child, and my student might face some difficult times and the soldier was counting on me to encourage his son should the child show signs of struggles. Essentially, this soldier was looking out for all of us, all along. Likewise, with an understanding of military deployment issues, and how military deployments affect children and families, we can care for, support, and look out for them with a better understanding of their needs.

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Appendix 1

Email Invitation Letter and Pretest

Educators,

I am a graduate student in the Department of Educational Foundations, Leadership and Technology at Auburn University. I would like to invite you to participate in my research study designed to examine teacher knowledge related to the effects of military deployments on military families and their children. You may participate if you are an educator linked to DoDEA or Public School System.

Participants are being asked to complete an online questionnaire and formative assessment, which will take approximately 30 minutes to complete. Your responses will be kept anonymous so please answer as candidly as possible. Your participation in this study is voluntary. There are no foreseeable risks associated with this project. However, if you feel uncomfortable answering any question, you can withdraw from the survey at any point. It is very important for us to learn your opinions. Due to the anonymity of the survey, I can only share the composite results of the survey if you request the results.

If you would like to know more information about this study, an information letter can be obtained from this link inviting you to participate:

http://deploymentissuesandteacherknowledge.questionpro.com

If you decide to participate after reading the letter, you can access the survey by selecting the "agree to participate" choice.

If you have any questions, please contact me at rmt0001@auburn.edu or thomas6552@bellsouth.net. You can also contact my advisor, Dr. Ellen Reames, at reamseh@auburn.edu.

Thank you for your consideration,

Richard Thomas

Auburn University
Auburn University, Alabama 36849-5221

Educational Foundations, Leadership and Technology
4036 Haley Center
Telephone: (334) 844-4460 Fax: (334) 844-3072

**INFORMATION LETTER**

Research Study:
MILITARY DEPLOYMENTS: EVALUATING TEACHER KNOWLEDGE

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

You are invited to participate in a research study designed to examine teacher knowledge related to the effects of military deployments on military families and their children. This study is being conducted by Mr. Richard Thomas and Dr. Ellen Reames in the Department of Educational Foundations, Leadership and Technology at Auburn University. We hope to learn the intervention strategies educators perceive as important to student success. You were selected as a possible participant because you are a linkage with either DoDEA or to a public school system. You may participate if you are an educator linked to DoDEA or a public school system.

Risks or discomforts are not anticipated with participation in this study. It is an anonymous questionnaire and a formative evaluation. DoDEA or Alabama School Systems will not be involved in anyway. Your total time commitment will be approximately 20- 30 minutes. You may save your answers, leave the survey site and return at any time to complete your responses. You are not obligated to complete this tutorial during duty hours. This tutorial should be completed during your own time.

You will be asked to complete six demographic questions and a short 20 item multiple choice pre-survey on military deployment knowledge. A series of short tutorials on military deployment knowledge will be followed with four to six questions to answer. This tutorial/post-test format will ask you to complete a 20 item multiple-choice survey.

There is no compensation for participating in the study. Additionally, there is no fee for your participation in the study. If you change your mind about participating, you may withdraw at any time during the study.

Your participation is voluntary. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Your decision about whether or not to participate, or to stop participating will not jeopardize your future relations with Auburn University, the Department of Educational Foundations Leadership and Technology or your respective institution, school, or department.

Any data obtained in connection with this study will remain anonymous. Information collected through your participation may be used to fulfill an educational requirement, published in a professional journal, and/or presented at a professional meeting.

If you have questions about this study, please e-mail me at rmt0001@auburn.edu.If you have questions about rights as a research participant, you may contact the Auburn University office of Human Subjects or the Institutional Review Board by phone (334) 844-5966 or e-mail at hsubiec@auburn.edu or IRBChair@auburn.edu. HAVING READ THE INFORMATION ABOVE, YOU MUST DECIDE IF

YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, PLEASE CLICK ON THE LINK BELOW. YOU MAY PRINT A COPY OF THIS LETTER TO KEEP.

| | | |
|---|---|---|
| Richard M. Thomas____ August 3, 2010 | Investigator | Date |
| Dr. Ellen Reames___ __August 3, 2010 | Co-Investigator | Date |

The Auburn University Institutional Review Board has approved this document for use from August 4, 2010, to August 3, 2011. Protocol #10-204 EX1008.

The provided link to the online survey is: http://deploymentissuesandteacherknowledge.questionpro.com

## Pretest

1. Indicate your current assigned school system_____ _____ _____.

    1. DoDEA School System
    2. Public School System

2. The highest degree attained is:

    1. Associates
    2. Bachelors
    3. Masters
    4. Educational Specialist
    5. Doctors
    6. Other

3. Indicate how long have you been working in your current profession?

    1. Less than 10 years
    2. 10 to 20 years
    3. 20 to 30 years
    4. 30 +

4. What is your age?

    1. 20 to 30 years
    2. 30 to 40 years
    3. 40 to 50 years
    4. 50+

5. Ethnicity preference?

    1. Native American
    2. Black
    3. White
    4. Hispanic
    5. Asian
    6. Other

6. What is your gender?

    1. Female
    2. Male

7. Some traumatic events, such as the sudden loss of a parent due to deployment, can dramatically impact the child's environment. This can potentially result in a complex mixture of trauma and grief. This condition is known as _____ _____ _____.

    1. Acute Withdrawal Behaviors (AWB)
    2. Severe depression Behaviors (SDB)
    3. Post Traumatic Syndrome (PTSD)
    4. Emotional Anxiety Symptoms (EAS)

8. The effects of deployment stressors on children are linked to greater difficulties in children's _____ and _____ functioning.

    1. psychological and emotional
    2. cognitive and behavioral
    3. social and emotional
    4. normal and affable

9. Children's reactions to parental deployments differ and largely depend on the child's _____, _____ _____ and the presence of any preexisting psychological or behavioral problems.

    1. age, developmental stage
    2. parents, developmental stage
    3. age, cultural environment
    4. parents, cultural environment

10. Recent evidence suggests that military families who experience _____ or _____ deployments were at risk for child maltreatment.

    1. anticipated or prolonged
    2. repeated or prolonged
    3. predictable or prolonged
    4. atypical or prolonged

11. The Deployment Cycle or Phases of Deployment consists of four phases. They are the Pre-Deployment, Deployment, Post-Deployment, and _____ phases.

    1. recuperation
    2. reintegration/reunion
    3. recommitment
    4. rejuvenation

12. The Deployment Cycle is a _____ _____, advancing through four phases, beginning and ending with your regular military life at home (DoD, 2008).

    1. particular technique
    2. predetermined route
    3. continuous process
    4. time period

13. Tours of separation for military assignments can vary from a few days to more than a year. Moreover, physical separations are difficult for military families. Even so, the separation is even more stressful if it entails deployment to a conflict zone because of the increased possibility that the Soldier may be _____ ___ _____ (Booth, et al., 2007).

    1. injured or killed
    2. mistreated and neglected
    3. lost and lonely
    4. forgetful or delusional

14. The seven stages of the New Emotional Cycles of Deployment are: Stage 1 - Anticipation of Departure Stage 2 – Detachment and Withdrawal Stage 3 – Emotional Disorganization Stage 4 – _____ and _____Stage 5 – Anticipation of Return State 6 – Return Adjustment and Renegotiation State 7 – Reintegration and Stabilization

    1. Stabilization and Revival
    2. Reintegration and Stabilization
    3. Stabilization and Recuperation
    4. Recovery and Stabilization

15. The fact that many of our service members are deployed to combat zones where their lives are threatened makes the situation _____ for the development of significant emotional problems within the military family (Johnson, et al., 2007).

    1. prime
    2. minor
    3. trivial
    4. ready

16. Research regarding teaching strategies have shown using role-play helps to improve students' sense of school connectedness. A reading assignment that allows students to explore non-aggressive conflict resolution is called behavioral and _____ _____ techniques.

    1. cooperative behavioral
    2. cognitive behavioral
    3. resilience assistance
    4. balanced behavioral

17. Why is it a necessity for teachers to involve themselves in deployment issues? Studies have shown adult reactions to individuals and groups after a crisis can _____ _____the outcome of the student's school experience.

    1. significantly affect
    2. negatively effect
    3. positively affect
    4. seriously influence

18. Administrators can ensure that every student in the school has a/an _____ _____ to know and "watch out" for that student.

    1. peer mentor
    2. adult mentor
    3. buddy soldier
    4. guidance counselor

19. Talk to your students about events in terms they can understand and limit _____ or _____ communication.

    1. loud or noisy
    2. scary or hurtful
    3. negative or cruel
    4. intimidating or spiteful

20. Teachers should consider a referral to the school counselor, psychologist or social worker when _____ or extreme symptoms persist over a period of time.

    1. prolonged
    2. crying
    3. unhappiness
    4. protracted

21. As educators, we are an important and valuable _____ and _____as the children affected by deployment learn to cope and to develop during this time of change.

    1. source and support
    2. resource and support
    3. support and contributor
    4. support and observer

22. While recognizing that it is natural to feel hurt and angry when someone we care about has left, teachers should remind students that there are appropriate ways to express _____ without hurting yourself or taking your anger out on others.

    1. feelings
    2. thoughts
    3. anger
    4. pain

23. Research has revealed that second only to family, _____ is/are the most important stabilizing force in the lives of young people.

    1. teachers
    2. church
    3. school
    4. peers

24. The sociomoral atmosphere entails our conviction that _____.

    1. Children follow rules simply out of obedience.
    2. Children engage in certain prosocial behaviors or have habits of politeness
    3. The child's experience and development as acceptable moral behaviors.
    4. All interactions between and among children, their primary caregivers, and educators have an impact on the child's development, and includes the child's social and moral experiences.

25. Through daily interactions, the _____ determine the sociomoral atmosphere in which the young child lives.

    1. classroom
    2. adults
    3. peers
    4. schools

26. Just as schools enhance or impede the development of a child's sociomoral atmosphere (DeVries, 2004), parents, and how they cope with_____ _____ issues, can also enhance or impede the development of a child's sociomoral atmosphere.

    1. many childhood
    2. raising children
    3. mental health
    4. military deployment

Congratulations! You have successfully completed the pretest and you are half way through this military deployment tutorial. Your score is ${score}. Please continue now.

The results of your pretest will serve as your baseline knowledge of military deployment issues as they relate to military children and their families. Your results will also be compared to the posttest results in order to determine the effectiveness of the tutorial. Please continue with the tutorial phase to improve your knowledge of military deployment issues. Are you ready to improve your knowledge of military deployment issues? You are halfway through.

Appendix 2

Tutorial/Posttest

Welcome to the final phase. You are entering the tutorial/posttest for this military deployment study. As you progress, you will be given a written passage which includes knowledge and examples of deployment related information. Following each passage there will be three-five questions, which are designed to assess your knowledge of deployment. If after reading the question, you are not sure of the answer, there is a HINT provided. Select one of the multiple-choice answers before proceeding to the next question. Please take advantage of the HINT feature; it should help to improve your performance during the posttest. You may continue now.

**Emotional Stressors in Children and Adults:**

The effects of deployment stressors on children are linked to greater difficulties in children's social and emotional functioning (Chandra, et al., 2010). According to DeVries and Zan (1994), the construction of a self proceeds along with corresponding construction of others as having thoughts, feelings, and values, just as the self does (p. 45). Taking into account the child's ability to process information, the child's age influences the cognitive skills they use to make sense of the world (Piaget, 1954/1981, 1997). The events that are set in motion, relative to the child's relations with the adult, influence the child's psychological development (Piaget, 1954/1981, 1997). The child organizes the perceived attitudes of others toward the self and constructs his or her personality with increasingly stable characteristics (DeVries & Zan, 1994; Piaget, 1954/1981). Perhaps, this is the fundamental theory that accounts for emotional and behavior patterns such as tearfulness, unexplained crying, out of the ordinary complaints about school, withdrawals, and poor academic performance that might exist due to the absences of a deployed parent. Further, youth are well aware of the possibility of losing a parent permanently through death, or a parent returning home maimed or incapacitated (A. J. Huebner, et al., 2007; A. J. Huebner & Mancini, 2005). Likewise, some traumatic events, such as the sudden loss of a parent or sibling can dramatically impact the caring environment surrounding the child, and can potentially result in a complex mixture of trauma and grief with both Post Traumatic Syndrome (PTSD) and complicated grief reactions as a result (Dyregrov, 1993).Consequently, childrens reactions to parental deployments differ and largely depends on the child's age, developmental stage, and the presence of any preexisting psychological or behavioral problems. For example, very young children may exhibit separation anxiety, temper tantrums, and changes in eating habits. While school age children might experience a decline in academic performance, and have mood changes or physical complaints. Older children, such a children in their adolescents ,may become angry and act out, or withdraw and show signs of apathy (Department of Veterans Affairs 2010a, 2010b). Among adolescents, those with parents deployed during Operation Iraqi Freedom (March-May 2003) had higher measured heart rates and perceived stress levels

compared with civilian controls and adolescents without a deployed parent (Barnes & Treiber, 2007; Chartrand, Frank, White, & Shape, 2008).Accordingly, it is now well accepted that children and adolescents can develop PTSD following life-threatening traumatic events. The diagnosis of PTSD in children and adolescents is almost identical (Dyregrov & Yule, 2006). Following exposure to traumatic stressors, children display a wide range of stress reactions which vary with age and to some extent gender (Dyregrov & Yule, 2006). Younger children display overt aggression and destructiveness. They also show more repetitive play (and drawing) about the traumatic event, as well as behavioral re-enactments. For preschool children there is less agreement as to the range of severity of their stress reactions. For this age group reactions are more determined by parental reactions to the event. If parents respond in a calm manner, the child can feel protected and secure (Dyregrov & Yule, 2006). Moreover, recent evidence also suggests that military families who experience repeated or prolonged deployments were at risk for child maltreatment. Young married couples with young children were at greatest risk for reports of child neglect (Chartrand, et al., 2008; Gibbs, Martin, Kupper, & Johnson, 2007; Rentz, et al., 2007).In addition, the fact that many of our service members are deployed to combat zones where their lives are threatened, makes the situation prime for the development of significant emotional problems for military personnel and their families (Johnson, et al., 2007). The examples here represent reasons why teacher knowledge of deployment issues is so important.

1. Some traumatic events, such as the sudden loss of a parent due to deployment, can dramatically impact the child's environment. This can potentially result in a complex mixture of trauma and grief. This condition is known as _____ _____ _____.

    1. Acute Withdrawal Behaviors (AWB)
    2. Severe depression Behaviors (SDB)
    3. Post Traumatic Syndrome (PTSD)
    4. Emotional Anxiety Symptoms (EAS)

2. The effects of deployment stressors on children are linked to greater difficulties in children's _____ and _____ functioning.

    1. psychological and emotional
    2. cognitive and behavioral
    3. social and emotional
    4. normal and affable

3. Children's reactions to parental deployments differ and largely depend on the child's _____, _____ _____ and the presence of any preexisting psychological or behavioral problems.

    1. age, developmental stage
    2. parents, developmental stage
    3. age, cultural environment
    4. parents, cultural environment

4. Recent evidence suggests that military families who experience _____ or _____ deployments were at risk for child maltreatment.

    1. anticipated or prolonged
    2. repeated or prolonged
    3. predictable or prolonged
    4. atypical or prolonged

5. The fact that many of our service members are deployed to combat zones where their lives are threatened makes the situation _____ for the development of significant emotional problems within the military family (Johnson, et al., 2007).

    1. prime
    2. minor
    3. trivial
    4. ready

**The Deployment Cycle:**

The four phases of deployment from beginning to end are: Pre-Deployment, Deployment, Post-Deployment, and Reintegration/Reunion Phases (DoD, 2008; A. Huebner & J. Mancini, 2005). While the Army relocates families to keep them close to their soldiers, deployments and other kinds of physical separation, such as for training, is common within Army culture (Booth, et al., 2007). Tours of separation for military assignments can vary from a few days to more than a year. Moreover, physical separations are difficult for military families. Even so, the separation is even more stressful if it entails deployment to a conflict zone because of the increased possibility that the soldier may be injured or killed (Booth, et al., 2007). The Deployment Cycle is a continuous process, advancing through four phases (D oD , 2008). The following chart visualizes the cycle: In addition to the Four Phase Deployment Cycle, the Seven Stage Emotional Cycles of Deployment (Morse, 2006) has been created to address multiple deployments. This Emotional Cycle of Deployment more dramatically illustrates how individuals move through emotional stages when trying to cope with a deployment. The Seven Stage Emotional Cycle of Deployment lends credence to the fact that multiple deployments such as five and six tours of deployments can cause increased turmoil and stress for military families (Morse, 2006). Normally in prior military conflicts, American service members deployed once, but rarely more than twice. In today's military, zones of military conflict can include numerous deployments i.e. one deployment to five or more. The seven stages of the New Emotional Cycles of Deployment are: Stage 1 - Anticipation of DepartureStage 2 – Detachment and Withdrawal Stage 3 – Emotional Disorganization Stage 4 – Recovery and Stabilization Stage 5 – Anticipation of ReturnState 6 – Return Adjustment and Renegotiation State 7 – Reintegration and Stabilization (Morse, 2006)

6. The Deployment Cycle or Phases of Deployment consists of four phases. They are the Pre-Deployment, Deployment, Post-Deployment, and _____ phases.

    1. recuperation
    2. reintegration/reunion
    3. recommitment
    4. rejuvenation

7. The Deployment Cycle is a _____ _____, advancing through four phases, beginning and ending with your regular military life at home (DoD, 2008).

    1. particular technique
    2. predetermined route
    3. continuous process
    4. time period

8. Tours of separation for military assignments can vary from a few days to more than a year. Moreover, physical separations are difficult for military families. The separation is even more stressful if it entails deployment to a conflict zone because of the increased possibility that the soldier may be _____ and/or _____ (Booth, et al., 2007).

    1. injured or killed
    2. mistreated and neglected
    3. lost and lonely
    4. forgetful or delusional

9. The seven stages of the New Emotional Cycles of Deployment are: Stage 1 – Anticipation of Departure Stage 2 – Detachment and Withdrawal Stage 3 – Emotional Disorganization Stage 4 – _____ and _____ Stage 5 – Anticipation of Return Stage 6 – Return Adjustment and Renegotiation Stage 7 – Reintegration and Stabilization

    1. Stabilization and Revival
    2. Reintegration and Stabilization
    3. Stabilization and Recuperation
    4. Recovery and Stabilization

You are making great progress, keep going!

**Intervention Strategies for Teachers:**

Teacher knowledge of deployment issues is a basic component of intervention strategies for children. Research has shown adult reactions to individuals and groups after a crisis can significantly affect the outcome of the student's school experience, (Educational Opportunities Directorate of the Department of Defense, 2003). Once the immediate physical and safety needs of the child are met, consideration must be given to the psychological needs of those affected.

Through supportive interventions, delayed or prolonged stress responses can be minimized and learning can resume (Educational Opportunities Directorate of the Department of Defense, 2003). The process of effective interventions with individuals or groups of children can create a sense of class cohesiveness and help to re-establish the student's sense of security and belonging in the classroom setting (Educational Opportunities Directorate of the Department of Defense, 2003).Likewise, teachers should listen to their students and be approachable, paying special attention while being sensitive to the unique needs of children coping with deployment and family separations. Let the student know that they can speak with you or with a school counselor, nurse, psychologist or social worker about their questions and concerns (Educational Opportunities Directorate of the Department of Defense, 2003).In support of teacher and their efforts, administrators can ensure that every student in the school has an adult assigned to know and "watch out" for that student. Prior to the start of the school year, assign every new student to an adult who calls the student in advance, greets the student on the first day of school, introduces the student to the first period class and periodically checks in with the student. These adults will serve as, the "Adult Mentor" for the student (Blum, 2004).Teachers should provide clear and consistent classroom rules and management. Establish a behavioral "Magna Carta" in which rules and consequences are clear. Use conflicts as learning opportunities. Employ non-aggressive strategies to control behavior (e.g., strand by an unruly student and teach from that position in the class, (Blum, 2004).

10. Research regarding teaching strategies have shown using role-play helps to improve students' sense of school connectedness. A reading assignment that allows students to explore non-aggressive conflict resolution is called behavioral and _____ _____ techniques.

    1. cooperative behavioral
    2. cognitive behavioral
    3. resilience assistance
    4. balanced behavioral

11. Why is it a necessity for teachers to involve themselves in deployment issues? Studies have shown adult reactions to individuals and groups after a crisis can _____ _____the outcome of the student's school experience.

    1. significantly affect
    2. negatively effect
    3. positively affect
    4. seriously influence

12. Administrators can ensure that every student in the school has a/an _____ _____ to know and "watch out" for that student.
    1. peer mentor
    2. adult mentor
    3. buddy soldier
    4. guidance counselor

**Intervention Strategies for Teachers Continued:**

Teachers should take time to discuss deployments and provide honest and factual information. It is crucial to reduce fear and prevent rumors from spreading (Educational Opportunities Directorate of the Department of Defense, 2003). Allowing students to ask questions will help them gain information about deployment events. This will help take away some of their confusion (Educational Opportunities Directorate of the Department of Defense, 2003).Talk to your students about events in terms they can understand and limit scary or hurtful communication (Educational Opportunities Directorate of the Department of Defense, 2003). Some children may struggle with expressing themselves and may communicate inappropriately; nevertheless, it is important to recognize that this is also a way of coping with overwhelming feelings of fear, anxiety and confusion, (Educational Opportunities Directorate of the Department of Defense, 2003).In addition to listening to students, teachers should also consider when to make a referral to the school counselor, psychologist or social worker. Prolonged symptoms persisting over several weeks, or if symptoms seem extreme, teachers, with the help of the school counselor, should contact the parent. The teacher should also consult with the school site administrator and support staff. Doing so will help to ensure that the appropriate mental health referrals are recommended within the school or community. As educators, we play a critical role in the life of each student (Educational Opportunities Directorate of the Department of Defense, 2003). We are an important and valuable resource and support as the children affected by deployment learn to cope and to grow during this time of change, (Educational Opportunities Directorate of the Department of Defense, 2003). We must also remember to rely on our own wisdom and knowledge of childhood development to help each student and to assess their individual needs and the needs of the other children in your classroom, (Educational Opportunities Directorate of the Department of Defense, 2003).Occasionally, anger stemming from deployment issues may often lead to office referrals. Administrators and teachers should reinforce anger management and expect some angry outbursts from students (Educational Opportunities Directorate of the Department of Defense, 2003). While recognizing that it is natural to feel hurt and angry when someone we care about has left, there are appropriate ways to express anger without hurting yourself or taking your anger out on others (Educational Opportunities Directorate of the Department of Defense, 2003). Reinforce age-appropriate anger management and adjustment interventions to ensure a climate of nonviolence and acceptance. Make appropriate referral to the school counselor (Educational Opportunities Directorate of the Department of Defense, 2003).Research has revealed that second only to family, school is the most important stabilizing force in the lives of young people. For military children, who may move as many as 15 times before they graduate from high school, a school environment where they feel secure and ready to learn is critical (Blum, 2004). School connections are the belief by students that adults in the school care about their learning and about them as individuals. Students are more likely to succeed when they feel connected to school (Blum, 2004). Critical requirements for feeling connected include high academic rigor and expectations coupled with support for learning, positive adult-student relationships, and physical and emotional safety (Blum, 2004).

13. Talk to your students about events in terms they can understand and limit _____ or _____communication.

    1. loud or noisy
    2. scary or hurtful
    3. negative or cruel
    4. intimidating or spiteful

14. Teachers should consider a referral to the school counselor, psychologist or social worker when _____ or extreme symptoms persist over a period of time.

    1. prolonged
    2. crying
    3. unhappiness
    4. protracted

15. As educators, we are an important and valuable _____ and _____as the children affected by deployment learn to cope and to develop during this time of change.

    1. source and support
    2. resource and support
    3. support and contributor
    4. support and observer

16. While recognizing that it is natural to feel hurt and angry when someone we care about has left, teachers should remind students that there are appropriate ways to express _____ without hurting yourself or taking your anger out on others.

    1. Feelings
    2. thoughts
    3. anger
    4. pain

17. Research has revealed that second only to family, _____ is/are the most important stabilizing force in the lives of young people.

    1. teachers
    2. church
    3. school
    4. peers

You are making excellent progress and will soon be finish!  Please continue.

**The Sociomoral Atmosphere of Children:**

Another important element of this study is determining how psychological and emotional stressors stemming from military deployments affect the sociomoral atmosphere of the military child. Why is this information important for teachers to know and how do military deployments influence the sociomoral atmosphere of military dependent students? In order to understand how military deployments influence the sociomoral atmosphere of students, one must first have an idea of how the sociomoral atmosphere influences the child's development. Sociomoral atmosphere entails our conviction that all interactions between and among children, their primary caregivers, and educators have an impact on not only the child's social and moral experiences, but also the child's development (DeVries & Zan, 1994). A primary caregiver is defined as the person responsible for the child at present or when the deployed parent is away (Chandra, Lora-Cinisomo, Jaycox, Tanielian, & Rachel, 2010). One might interpret moral experience and development as moral behaviors acceptable to society. In contrast, (DeVries & Zan) use the phrase "Moral Children," meaning children grappling with issues that are a natural part of their lives (p.28.) Accordingly, the moral child does not follow moral rules simply out of obedience to authority, engage in certain prosocial behaviors, or have habits of politeness. Rather, moral children worry about how people are treated long before they can understand the Golden Rule. They worry about aggression, fair use and equal participation (DeVries & Zan, 1994).Dreeben's sociological study of schooling, On What Is Learned in School," (1968), demonstrates that the societal contexts of the factory, military, and the church make their way into school organizations in subtle but pronounced ways (Schubert, 1986). For that reason, the larger school atmosphere can foster or impede the development of the classroom's sociomoral atmosphere (DeVries & Zan, 1994). The sociomoral atmosphere influences the child's development. Through daily interactions, it is the adults who determine the nature of the sociomoral atmosphere in which the young child lives (DeVries & Zan, 1994).Equally important and according to DeVries (2004), Jean Piaget and other researchers conducted studies showing qualitative changes over time in children's mental development (p.2). DeVries further states that with clever experiments, Piaget discovered that the reasoning of children contains many ideas that were never taught to them (DeVries, 2004). She also explains how Piaget indicated how affective, social and moral aspects fit into his general theory-specifically topics such as self-esteem, moral feelings, personality, idealism, and schemes of social interaction (DeVries, 2004; Piaget, 1954/1981). Pairing these theories alongside of what we know now about military deployment it becomes clear as to how the linkage of several youth outcomes, including depression, behavioral problems, and poor academic performance can effect emotions reflecting the child's sociomoral atmosphere. As cited previously, adults determine the nature of the sociomoral atmosphere in which the child lives, through daily interactions (DeVries & Zan, 1994). The child's sociomoral atmosphere is made up, in large part, of the countless adult actions toward and reactions to the child that form the adult-child relationship (DeVries & Zan, 1994). Consequently, just as schools enhance or impede the development of a child's sociomoral atmosphere (DeVries, 2004), parents, as well as teachers and how they cope with military deployment issues, can also enhance or impede the development of a child's sociomoral atmosphere. Adults determine the nature of the sociomoral atmosphere in which the child lives, through daily interactions (DeVries & Zan, 1994). Thus, knowledge of the child's sociomoral atmosphere is a very important component of teacher knowledge concerning military deployment effects on military children and families.

18. The sociomoral atmosphere entails our conviction that _____.

    1. Children follow rules simply out of obedience.
    2. Children engage in certain prosocial behaviors or have habits of politeness
    3. The child's experience and development as acceptable moral behaviors.
    4. All interactions between and among children, their primary caregivers, and educators have an impact on the child's development which includes the child's social and moral experiences.

19. Through daily interactions, the _____ determine the sociomoral atmosphere in which the young child lives.

    1. classroom
    2. adults
    3. peers
    4. schools

20. Just as schools enhance or impede the development of a child's sociomoral atmosphere (DeVries, 2004), parents, and how they cope with_____ _____ issues, can also enhance or impede the development of a child's sociomoral atmosphere.

    1. many childhood
    2. raising children
    3. mental health
    4. military deployment

21. The information within the tutorial is relevant to my occupation.

    1. Strongly disagree
    2. Disagree
    3. Agree
    4. Strongly agree
    5. Undecided

22. I liked the self-paced approach of the tutorial.

    1. Strongly disagree
    2. Disagree
    3. Agree
    4. Strongly agree
    5. Undecided

23. What was the most important content you learned?

24. What did you like best about the tutorial?

25. What did you like least?

26. How are you going to use this knowledge in your profession?

27. Will the information in the tutorial serve to improve your knowledge of deployment issues?

1. YES
2. NO

28. Are the HINTS helpful?

1. YES
2. NO

## Answers to Pretest and Posttest

1. Some traumatic events, such as the sudden loss of a parent due to deployment, can dramatically impact the child's environment. This can potentially result in a complex mixture of trauma and grief. This condition is known as _____.

    1. withdrawal
    2. depression
    3. Post Traumatic Syndrome (PTSD)
    4. anxiety

2. The effects of deployment stressors on children are linked to greater difficulties in children's _____ functioning.

    1. psychological
    2. cognitive
    3. social and emotional
    4. normal

3. Children's reactions to parental deployments differ and largely depend on the child's _____, _____ and the presence of any preexisting psychological or behavioral problems.

    1. age, developmental stage
    2. parents, developmental stage
    3. age, cultural environment
    4. parents, cultural environment

4. Recent evidence suggests that military families who experience _____ deployments were at risk for child maltreatment.

    1. anticipated
    2. repeated or prolonged
    3. predictable
    4. atypical and prolonged

5. The fact that many of our service members are deployed to combat zones where their lives are threatened makes the situation _____ for the development of significant emotional problems within the military family (Johnson, et al., 2007).

    1. prime
    2. not worth considering
    3. not ready
    4. ready

6. The Deployment Cycle or Phases of Deployment consists of four phases. They are the Pre-Deployment, Deployment, Post-Deployment, and _____ phases.

    1. recuperation
    2. reintegration/reunion
    3. recommitment
    4. rejuvenation

7. The Deployment Cycle is a _____, advancing through four phases, beginning and ending with your regular military life at home (DoD, 2008).

    1. particular technique
    2. predetermined route
    3. continuous process
    4. time period

8. Tours of separation for military assignments can vary from a few days to more than a year. Moreover, physical separations are difficult for military families. Even so, the separation is even more stressful if it entails deployment to a conflict zone because of the increased possibility that the Soldier may be _____ _____ (Booth, et al., 2007).

    1. injured or killed
    2. mistreated and neglected
    3. lost and lonely
    4. forgetful or delusional

9. The seven stages of the New Emotional Cycles of Deployment are: Stage 1 – Anticipation of Departure Stage 2 – Detachment and Withdrawal Stage 3 – Emotional Disorganization Stage 4 – _____Stage 5 – Anticipation of Return State 6 – Return Adjustment and Renegotiation State 7 – Reintegration and Stabilization

    1. Stage 1 – Stabilization and Revival
    2. Stage 2 - Reintegration and Stabilization
    3. Stage 3 - Stabilization and Recuperation
    4. Stage 4 – Recovery and Stabilization

10. Research have shown using role-play helps to improve students' sense of school connectedness. A reading assignment that allows students to explore non-aggressive conflict resolution is called behavioral and _____ _____ techniques.

    1. cooperative behavioral
    2. cognitive behavioral
    3. resilience assistance
    4. balanced behavioral

11. Why is it a necessity for teachers to involve themselves in deployment issues? Studies have shown adult reactions to individuals and groups after a crisis can _____ _____the outcome of the student's school experience.

    1. significantly affect
    2. negatively effect
    3. positively affect
    4. seriously influence

12. Administrators can ensure that every student in the school has a/an _____ _____ to know and "watch out" for that student.

    1. peer mentor
    2. adult mentor
    3. buddy soldier
    4. guidance counselor

13. Talk to your students about events in terms they can understand and limit _____ or _____communication.

    1. loud or noisy
    2. scary or hurtful
    3. negative or cruel
    4. intimidating or spiteful

14. Teachers should consider a referral to the school counselor, psychologist or social worker when _____ or extreme symptoms persist over a period of time.

    1. prolonged
    2. crying
    3. unhappiness
    4. protracted

15. As educators, we are an important and valuable _____ and _____as the children affected by deployment learn to cope and to develop during this time of change.

    1. source and support
    2. resource and support
    3. support and contributor
    4. support and observer

16. While recognizing that it is natural to feel hurt and angry when someone we care about has left, teachers should remind students that there are appropriate ways to express _____ without hurting yourself or taking your anger out on others.

    1. Feelings
    2. thoughts
    3. anger
    4. pain

17. Research has revealed that second only to family, _____ is/are the most important stabilizing force in the lives of young people.

    1. teachers
    2. church
    3. school
    4. peers

18. The sociomoral atmosphere entails our conviction that _____.

    1. Children follow rules simply out of obedience.
    2. Children engage in certain prosocial behaviors or have habits of politeness
    3. The child's experience and development as acceptable moral behaviors.
    4. All interactions between and among children, their primary caregivers, and educators have an impact development and the child's social and moral experiences.

19. Through daily interactions, the _____ determine the sociomoral atmosphere in which the young child lives.

    1. Classroom environment
    2. Adults
    3. Peer relationships
    4. Schools

20. Just as schools enhance or impede the development of a child's sociomoral atmosphere (DeVries, 2004), parents, and how they cope with_____ _____ issues, can also enhance or impede the development of a child's sociomoral atmosphere.

    1. many childhood
    2. raising children
    3. mental health
    4. military deployment

# Appendix 3

## Institutional Review Board Approval

AUBURN
UNIVERSITY

*Office of Research Compliance*
*307 Samford Hall*
*Auburn University, AL 36849*

*Telephone: 334-844-5966*
*Fax: 334-844-4391*
*hsubjec@auburn.edu*

August 6, 2010

MEMORANDUM TO: Mr. Richard Thomas
Department of Educational Foundations, Leadership, and Technology

PROTOCOL TITLE: "Military Deployments: Evaluating Teacher Knowledge."

IRB FILE NO.: 10-204 EX 1008

APPROVAL DATE: August 4, 2010
EXPIRATION DATE: August 3, 2011

The referenced protocol was approved "Exempt" by the IRB under 45 CFR 46.101 (b) (2):

> "Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
> (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
> (ii) any disclosure of the human subjects' response outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation."

You should retain this letter in your files, along with a copy of the revised protocol and other pertinent information concerning your study. If you anticipate a change in any of the procedures authorized in this protocol, you must request and receive IRB approval prior to implementation of any revision. Please reference the above IRB file number in any correspondence regarding this project.

If you will be unable to file a Final Report on your project before August 3, 2011 you must submit a request for an extension of approval to the IRB no later than July 13, 2011. If your IRB authorization expires and/or you have not received written notice that a request for an extension has been approved prior to August 3, 2011 you must suspend the project immediately and contact the Office of Research Compliance.

A Final Report will be required to close your IRB project file. Note that only copies of the IRB-approved information letter can be used to consent participants.

If you have any questions concerning this Board action, please contact the Office of Research Compliance.

Sincerely,

Kathy Jo Ellison, RN, DSN, CIP
Chair of the Institutional Review Board
for the Use of Human Subjects in Research

cc: Ms. Sherida Downer
Dr. Ellen Reames

The Auburn University Institutional Review Board has approved this document for use from 8/4/10 to 8/3/11 Protocol # 10-204 EX 1008

# Auburn University

Auburn University, Alabama 36849-5221

Educational Foundations
Leadership and Technology
4036 Haley Center

Telephone: (334) 844-4460
Fax: (334) 844-3072

**INFORMATION LETTER**
For a Research Study entitled

**MILITARY DEPLOYMENTS: EVALUATING TEACHER KNOWLEDGE**

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

You are invited to participate in a research study designed to examine teacher knowledge related to the effects of military deployments on military families and their children. This study is being conducted by Mr. Richard Thomas and Dr. Ellen Reames in the Department of Educational Foundations, Leadership and Technology at Auburn University. We hope to learn the intervention strategies educators perceive as important to student success. You were selected as a possible participant because you are linkage with either DoDEA or a public school system. You may participate if you are an educator linked to DoDEA or public school system.

No risks or discomforts are anticipated with participation in this study. It is an anonymous questionnaire and formative evaluation. No DoDEA or Alabama School System will be involved in any way. Your total time commitment will be approximately 20- 30 minutes. You may save your answers, leave the survey site and return at any time to complete your responses.

You will be asked to complete seven demographic questions and a short 20 item multiple choice pre-survey on military deployment knowledge. You will then be given a series of short tutorials on military deployment knowledge followed by 4 to 6 questions to answer. In total this tutorial/post-test format will ask you to complete a 20 item multiple choice survey.

There will be no compensation for participating. Additionally, there is no cost for your participation in the study.

If you change your mind about participating, you can withdraw at any time during the study. Your participation is voluntary. If you choose to withdraw, your data can e withdrawn as long as it is identifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University, the Department of Educational Foundations Leadership and Technology or your respective institution, school, or department.

Any data obtained in connection with this study will remain anonymous. Information collected through your participation may be used to fulfill an educational requirement, published in a professional journal, and/or presented at a professional meeting.

If you have questions about this study, please e-mail me at rmt0001@auburn.edu .

If you have questions about rights as a research participant, you may contact the Auburn University office of Human Subjects or the Institutional Review Board by phone (334) 844-5966 or e-mail at hsubiec@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION ABOVE, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, PLEASE CLICK ON THE LINK BELOW. YOU MAY PRINT A COPY OF THIS LETTER TO KEEP.

Richard M. Thomas August 3, 2010
Investigator Date

Dr. Ellen Reames August 3, 2010
Co-Investigator Date

*The Auburn University Institutional Review Board has approved this document for use from August 4, 2010 to August 3, 2011. Protocol #10-204 EX1008.*

The provided link to the online survey is:
http://deploymentissuesandteacherknowledge.questionpro.com.