The Impact of Demographic Influences on Academic Performance and Student Satisfaction with Learning as Related to Self-Esteem, Self-Efficacy and Cultural Adaptability within the Context of the Military

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Abstract. This study examines the impact of age, gender, education, rank and years of service on academic performance and student satisfaction with learning, as related to self-esteem, self-efficacy and cultural adaptability within the context of the military. The study population includes individuals stationed at a joint military command unit overseas participating in nonmilitary-related continuing education. The results illustrate relationships exist between student age and years of service, and satisfaction with learning, as well as, between student age, gender and level of education, and academic performance. Rank shows no significant relationship with either outcome; and self-esteem relates only to student satisfaction with learning. This study concludes that generational differences and diverse educational backgrounds, as well as, individual (personal) and group (military) goals, all impact success of military students participating in nonmilitary-related continuing education.

Keywords: continuing education; military; contextual reference; higher education

Introduction

The United States military supports continuing education for its personnel across all branches of service (Department of Defense, 2016). Minimal research is
available however that examines individuals stationed overseas participating in non-military-related courses while in their host nation. Also, literature is limited that investigates characteristics impacting academic success of these individuals, some of whom are members of joint military command units located Outside of the Continental United States.

Research is available that does describe general student populations studying abroad. For example, Lowinger, He, Lin and Chang (2014), and Ling (2009), report that a direct relationship exists between self-esteem, self-efficacy and cross-cultural adaptability, and academic performance and satisfaction with learning for traditional international students. Studies by Yora (2014) and Ling (2009), respectively, also note that demographic factors such as age, gender and previous education impact these students’ self-esteem and self-efficacy, as well as, cultural adaptability. Missing from the literature however is examination of these factors’ influence on non-civilian populations, such as military personnel, participating in continuing education courses while overseas. (Continuing education in this study includes college courses and programs selected by the individual and which are not specifically required by the military.)

This study hypothesizes that military personnel, participating in continuing education while stationed overseas, experience studying abroad differently than civilian populations. This hypothesis is based on the belief that self-esteem, self-efficacy and cross-cultural adaptability, as context-based constructs, are impacted differently by demographic factors (such as age, gender, education, rank and years of service) depending on the environment in which the experience occurs (Vaz, Parsons, Falkmer, Passmore, & Falkmer, 2014). Considering the sample population of this study, two primary environments exert influence: host nation (as described by Mak, Bodcoss, and Remburuth (2015)), and military organization (as described by Hsu (2010) and Greene, Buckman, Dandeker and Greenberg (2010)).

The purpose of this paper is twofold: first, to describe quantitative research that examines the impact of age, gender, education, rank and years of service on military student satisfaction with learning and academic performance as related to context-based constructs of self-esteem, self-efficacy and cultural adaptability. Second, this paper provides a narrative literature review to help interpret the implications of this study’s findings. Utilizing the theoretical framework of social situational learning, this article identifies a number of related phenomena that shed light on military personnel participation in continuing education while overseas, including contextual competition (due to membership in multiple communities), and reciprocal determinism (a dynamic interaction between environment and individual).

Background

Current research describes a number of challenges facing individuals studying abroad and the role that self-esteem, self-efficacy and cultural adaptability play in overcoming these challenges. Described in the literature also are a number of
significant personal and professional traits (i.e., demographic factors) that influence these context-based constructs. As guided by the sample population in this study – military personnel participating in non-military-related continuing education while stationed overseas – the demographic factors under investigation in this study include individual age, gender, rank, level of education and year of service.

**Demographic Influences: Age, Gender, Education, Rank and Years of Service**

Studies examining relationships between constructs shaped by cultural context (such as self-esteem, self-efficacy and cultural adaptability) and academic achievement and satisfaction with learning, must consider the impact of demographic characteristics of the sample population. Research by Yorra (2014) and Berry (2008), respectively, note that demographic traits relate significantly to development of one’s self-esteem and self-efficacy, as well as, cultural adaptability. Research by Schwartz (2013) goes further, illustrating that specific factors of age, gender and previous educational experiences influence student performance and satisfaction in school. Within a military community, MacLean (2010) suggests also that demographic factors directly associated with military life and military culture, such as rank and years of service, also may impact outcomes.

(Note: Research on the construct of ethnicity is limited, as related to acculturation and orientation of students studying abroad (Tan & Liu, 2014), and worthy of further study. As for this current research, the sample population represents an array of diverse ethnic backgrounds, however, the numbers are small. For this reason, the construct of ethnicity, although shown as part of the demographic make-up of the sample population, is not part of this study of personnel participating in non-military continuing education while overseas.)

Regarding the demographic traits considered, the first, age, half of the current military personnel, of which nearly 90% falls within the range of 18-40 years, identify themselves as members of the Millennial generation (those born after approximately 1980), and over one-third identify as being of Generation X (those born after Baby Boomers, yet earlier than the Millennials) (Department of Defense, 2016; Pew, 2014). The significance of this distribution is that differences between age often occur within groups, with each generation maintaining distinct attitudes and behaviors about life (Donatone, 2013). For example, Gen-Xers prefer to face a challenge with minimal assistance from others (Scheef & Thielfoldt, 2014). Millennials, on the other hand, generally welcome oversight and guidance (Donatone, 2013).

Gender becomes an item of interest in a study of military personnel because military communities continue as male-dominant environments, and this has been shown to have an effect on organizational culture (Rhode & Kellerman, 2006). Research by Preston (2011) acknowledges that gender role in the military is still a “thorny problem” (para. 1). Males and females often see things differently. For example, a young woman may attribute failure in the training classroom to not being smart enough (Halvorson, 2011). A young man in a
similar situation may interpret perceived lack of support as the culprit, and it is viewed as the supervisor’s fault (Seeman, 2008).

An individual’s level of education, another demographic factor in this study, is considered because of the nature of this trait relative to the context of the military environment. For example, education and training represent discriminating factors for military promotion boards. College courses and training programs completed by military personnel are often reviewed for combat and field application that support increased rank and pay (Lipscomb, 2015; Wong, Bliese, & McGurk, 2003). Also, students look to their past educational experiences to better understand current situations (Russell, 2006). It is unclear, however, whether military personnel see participation in continuing education as simply a means to an end (i.e., for military rank and promotion), or as a specific academic or cognitive growth experience.

The last two demographic factors of interest in this study include military rank and years of service. Both of these constructs are aligned directly to the military, and are examined due to their capacity to influence military personnel.

Rank is concept defined only in terms of the military, and represents similarities to a caste system (i.e., hierarchical structure of officers and enlisted) (Goodale et al., 2012). Within military culture, rank is tied closely to combat-based actions and missions, and counts more toward promotion than any other military or non-military activity (Hsu, 2015).

Regarding years of service, some troop members believe that it is advantageous to stay in the military (rather than not reenlist) despite recent changes in the promotion process. More often, promotion criteria now highlight merit and performance over time in service (Tilghman, 2015). Many active military personnel acknowledge the advantages of staying in the military, which include ample access to continuing education, healthcare benefits, and diverse retirement options, all factors which outweigh the disadvantages of strict military culture, combat duty, and separation from family (Nielson, 2015).

Research by Shoukat, Haider, Munir, Khan and Ahmed (2013) recognizes that demographic factors (such as age, gender, level of education, rank and years of service) act as influences on attitude and behavior. This study examines self-esteem, self-efficacy and cross-cultural adaptability, three concepts based on attitude and behavior, and the relationship to student academic achievement and satisfaction with learning while overseas. Consequently, studying the specific impact of age, gender, level of education, rank and years of service, as related to self-esteem, self-efficacy, and cross-cultural adaptability, is necessary to provide insight into the process of continuing education of military personnel while stationed overseas.
Self-Esteem, Self-Efficacy and Cultural Adaptability, and its Role in Academic Performance and Satisfaction with Learning

Individuals studying or working abroad do not fail or succeed on technical or operational expertise alone. Research suggests that individual capability for cultural adaptability and intercultural sensitivity contributes significantly to one’s success in a foreign environment (Abbe, Gulick, & Herman, 2007; Bhawuk & Brislin, 1992; Gardner, 2007). This relationship exists for leaders of cross-cultural and global military operations, as well as, civilian populations participating in the role of international student (Obilisteanu (2011), and Miranda (2012, respectively).

Individual readiness and ability to interact with people who are different from oneself or one’s culture define cultural adaptability (Kelly & Meyers, 1995; Lowinger et al., 2014; Sam & Berry, 2010). The related process of acculturation is triggered by a person’s sense of similarities and differences, and results in a dynamic struggle by the individual for internal (psychological) comfort and balance (Church, 1982; Kim, 2001; Vygovsk, 1978). The culmination of acculturation is the integration of an individual or group of individuals into a larger and different cultural community, resulting in some individual characteristics being altered (Bhattacharya, 2011). Researchers recognize that this process may extend to one’s individual identity, attitudes, and behaviors, and exist within professional, as well as, personal environments (Gardner, 2007; Smokowski, Bacallao, & Buchanan, 2009).

Closely related to cultural adaptability, and the overall process of acculturation, are the concepts of self-esteem and self-efficacy. Self-esteem is belief in one’s competence to cope with challenges; self-efficacy is the confidence to act, or execute behaviors, which master these challenges (Bandura, 1993; Reasoner, 2010). Individuals derive self-esteem and self-efficacy from self-identity (Ling, 2009). Self-identity exists most often as one of two perspectives: individual (personal) or collective (social). The individual self is achieved by “differentiating from others” (Sedikides & Brewer, n.d., para. 1). The collective self is achieved by membership in a group and experiencing social interactions which define that group’s accepted behaviors (McLeod, 2008). It is this interaction and membership in community that “bring the individual and social together in a coherent theoretical perspective” (Wilson & Myers, 2000, p. 57).

Each community or environment, however, presents context-specific attitudes and behaviors. These attitudes and behaviors may vary from location to location, and impact differently new members of the community (Leite & de Souza, 2012). It is recognized that self-esteem, self-efficacy, and cultural adaptability represent context-based constructs, and this context-specificity provides a frame-of-reference that defines an experience relative to the specific group or environment in which it occurs (Pajares & Schunk, 2001).

Persons who progress successfully through the acculturation process participate in cross-cultural activities within the group or environment that strengthen one’s self-esteem and self-efficacy (and vice-versa). These individuals demonstrate
adaptive and flexible behaviors which result in a strong sense of self. This in turn leads to higher aspirations for personal and professional success (Chasten, 2014; Rubie, Townsend, & Moore, 2004). Such aspirations appear to relate to occupational expectations, as well as, academic performance and satisfaction with learning (Kiche, 2010; Schwartz, 2013).

Several scholars agree that a strong relationship exists between an individual’s level of cultural adaptability, self-esteem and self-efficacy, and academic achievement and student satisfaction with learning. For example, Mustaffa and Ilias (2013) and Zhao (2010) suggest that these three traits often act in tandem when relating to international students’ academic performance and satisfaction with learning. Gebka (2014) agrees, illustrating that self-esteem and self-efficacy are directly related to cultural adaptability, and all three may serve as predictors of academic success and satisfaction while studying abroad.

Current studies related to self-esteem, self-efficacy and cultural adaptability, and academic performance, unfortunately, focus primarily on civilian student populations. Questions remain regarding military personnel, the relationships between these context-based constructs and academic performance and satisfaction with learning, and the impact of demographic factors of age, gender, level of education, rank and years of service. One benefit of gaining insight into this phenomenon is to inform practice in the field, as leadership works to support continuing education of military personnel overseas studying in areas not directly related to military or combat issues.

**Theoretical Framework**

The theoretical framework for this study is based on the constructs of social situational learning, which provides the underpinning for the hypothesis that self-esteem, self-efficacy and cultural adaptability relate to academic performance of OCONUS personnel while participating in continuing education overseas. As seminal works by Bandura (1978) and Vygotsky (1978) describe, learning occurs through observation of one’s surroundings, and human thought adapts to the environment. Social interaction and membership in community occurs, and both play key roles in cognitive development and relationship-building. Lave and Wegner (1991) agree, stating that learning is “situated within authentic activity, context and culture.” (Reprinted from Learning-Theories.com, 2014, para 2).

Social situational learning occurs when individuals engage in didactic interaction (Belpaeme & Morse, 2012). Research by Evensen and Hmelo (2000) further explains that social situational learning is not merely a vehicle for acquisition of information, but rather an actual transformation of an individual as he or she interacts with others and moves toward membership in the community. Wilson and Myers (2000) agree, stating that situated learning “…is positioned to bring the individual and the social together in a coherent theoretical perspective” (p. 57).
As related to joint military command units located overseas, it is important to recognize that at least two primary communities exist for these personnel: the military community, and the host-nation community. Both of these environments collectively present many attitudes and behaviors which impact new members. Individual traits such as age, gender, marital status, education and job situation, as well as, the music, food and religious preferences of the individual and the community, all influence the context of the group or environment in different ways (Leite & de Souza, 2012).

Finally, in addition to contextual differences across communities, Bandura (1978) recognizes a related phenomenon known as reciprocal determinism, which explains how an environment influences individual attitudes and behaviors, and how one’s individual attitudes and behaviors in turn influence the environment. The underlying principle here is that “intrapersonal development, interpersonal transactions, and interactive functioning...” all occur within the context of the organization or environment (Bandura, 1978, para. 1). Consequently, studies examining personnel studying overseas while assigned to joint military command units, must consider the complexity of the situation with regards to learning, to fully understand the implications of the study outcomes.

Methodology

This paper presents a two-prong strategy for study methodology. First, a non-experimental quantitative research design was used to collect and analyze data; second, a narrative literature review was completed to provide insight and further understanding into the implications of the findings. Surveys collected the quantitative data from a convenience sample. Descriptive statistics were used to analyze the data.

The focus of this study included two dependent variables (academic performance and satisfaction with learning), three independent variables (self-esteem, self-efficacy and cultural adaptability), and five covariates (age, gender, rank, level of education, and years of service. The covariates were controlled for and individually tested against the respective dependent variables for significance.

Sample Population

The sample population for this study included 83 individuals assigned to United States joint military command unit, with military bases located in England and the unit headquarters located in Stuttgart, Germany. Sample size was determined by utilizing power analysis, with alpha error probability set at .05 and an a priori effect size of 0.15 ($f^2 = .15$ - medium).

The study participant group consisted of both males and females, and represented military personnel, as well as, Department of Defense civilians and contractors assigned to the joint military command unit. Available individuals ranged in age from 18 to over 60 years. Participant represented an array of ethnicities, including African American, Caucasian and Hispanic groups.
Quantitative Data Collection and Statistical Analysis

Data were collected for independent variables via multi-tiered survey instruments which were composed of validated measures for self-esteem (i.e., the Self-Esteem Scale by Rosenberg (1968)), self-efficacy (i.e., the Generalized Self-Efficacy Scale by Schwarzer and Jerusalem (1995)), and cultural adaptability (i.e., the Weiss-Lyon Scale by Weissenburger and Lyon (2001)). Grade point average (GPA), measuring student performance, was obtained from archival data, and student satisfaction was measured via individually piloted survey questions. Data on predictor variables were obtained through self-reporting by study participants.

Bivariate analysis was conducted to determine the relationship over time between the three independent variables of self-esteem, self-efficacy and cultural adaptability, and the dependent variables of academic performance and satisfaction with learning. Multiple regression analysis was conducted to examine possible relationships of the independent variables as predictors of the dependent variables, as well as, to control for covariates of age, gender, level of education, rank, and years of service. Multiple regression was also use to test the relationships of the covariates as predictors of the dependent variables. Pearson’s product-moment correlation coefficient (r) measured the statistical strength of these relationships.

Narrative Review of the Findings

Upon completion of statistical data analysis, the researchers developed a narrative review of the literature to provide insight into the meaning of the findings. (The narrative review is presented in the Discussion section of this paper.) The goal was to identify and reflect upon any contradictions or inconsistencies between the findings of this study involving military personnel and previously investigated civilian populations who studied overseas. The theory of social situational learning was used to provide a framework within which to identify and discuss the insights generated.

Results

This study provides quantitative analysis of the impact of age, gender, education, rank and years of service on military student satisfaction with learning and academic performance as related to context-based constructs of self-esteem, self-efficacy and cross-cultural adaptability. The sample population included personnel stationed at a joint military command unit outside of the continental United States. Continuing education in this study is defined as academic courses and programs not specifically required by the military.

Figure 1 illustrates a summary of the findings. Empirical evidence supports a significant relationship between self-esteem and student satisfaction with learning. Statistically significant relationships also exist between age and years
of service, and student satisfaction with learning, as well as, age, gender and level of education, and student academic performance. No statistically significant relationships exist for the covariate of rank, nor the variables self-esteem, self-efficacy and cultural adaptability, when considering academic performance.

<table>
<thead>
<tr>
<th></th>
<th>Academic Performance</th>
<th>Satisfaction with Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td>-</td>
<td>.240*, .349*</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cultural Adaptability</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Age</td>
<td>.448*</td>
<td>.573*</td>
</tr>
<tr>
<td>Gender</td>
<td>.216*</td>
<td>-</td>
</tr>
<tr>
<td>Level of Education</td>
<td>.539*</td>
<td>-</td>
</tr>
<tr>
<td>Rank</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Years of Service</td>
<td>-</td>
<td>.513*</td>
</tr>
</tbody>
</table>

* Significance defined $p \leq .05$

Figure 1. Summary of statistically significant relationships between independent and dependent variables.

The following data tables provide empirical results related to each significant relationship shown in Figure 1. The statistical tests represented include the following: bivariate correlation between student satisfaction with learning and primary independent variables of self-esteem, self-efficacy and cultural adaptability; multiple regression analysis of student satisfaction with learning, using primary independent variables as predictor variables; multiple regression analysis of student satisfaction with learning, using covariates as predictor variables; and multiple regression analysis of student academic performance, using covariates as predictor variables.

Table 1 illustrates results of bivariate correlation analysis conducted to determine the relationship between the independent variables of individual self-esteem, self-efficacy and cultural adaptability, and the dependent variable satisfaction with learning of military personnel pursuing continuing education while overseas. Findings identify statistical significance for only one of the three independent variables – self-esteem – when moderating variables of age, gender, level of education, rank, and years of service are controlled.
Table 1. Bivariate Correlation between Student Satisfaction with Learning and Cultural Adaptability, Self-Esteem and Self-Efficacy, with Moderating Variables Controlled.

<table>
<thead>
<tr>
<th>Satisfaction with Learning</th>
<th>Self-Esteem (Rosenberg)</th>
<th>Self-Efficacy (Schwarzer and Jerusalem)</th>
<th>Cultural Adaptability (Weiss-Lyon)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.240*</td>
<td>-.109</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.044</td>
<td>.368</td>
<td>.380</td>
</tr>
<tr>
<td>N</td>
<td>76</td>
<td>71</td>
<td>71</td>
</tr>
</tbody>
</table>

* Significance defined p ≤ .05

Table 2 presents results of multiple regression, utilizing student satisfaction with learning as the outcome variable and self-esteem, self-efficacy and cultural adaptability as predictor variables. The regression model indicated no statistical significance when considering all three independent variables, wherein F (3, 60) = 1.748, and p = .167, with an overall model fit of R² = .034. However, upon closer scrutiny of the independent variables in this model, one of the three – self-esteem – when considered individually, was found to be a significant predictor of military student satisfaction with learning while overseas. This finding is consistent with results from bivariate analysis described earlier for the independent variable of self-esteem. (Note: The phenomenon of semi-partial and partial correlations, as related to regression models and the results in Table 2, are attributed to multicollinearity.)

Table 2. Multiple Regression of Primary Independent Variables and Student Satisfaction with Learning.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficient</th>
<th>95% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.635</td>
<td>1.139</td>
<td>.558</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>.510</td>
<td>.231</td>
<td>.349*</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>.296</td>
<td>.223</td>
<td>.211</td>
</tr>
<tr>
<td>Cultural Adaptability</td>
<td>-.077</td>
<td>.169</td>
<td>-.057</td>
</tr>
</tbody>
</table>

* Significance defined p ≤ .05

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Table 3 presents results of multiple regression again for the outcome variable of student satisfaction with learning, however, this time utilizing age, gender, level of education, rank, and years of service as predictor variables. The regression model here initially indicated no statistical significance, wherein $F (5, 68) = 1.977$, and $p = .093$, with an overall model fit of $R^2 = .063$. Again however, closer scrutiny and individual examination of each variable, two of the five covariates were found to be significant predictors of student satisfaction with learning: age and years of service. Covariates of gender, level of education, and rank were found not to be significant predictors of student satisfaction with learning in this study. (Note: The phenomenon of semi-partial and partial correlations, as related to regression models and the results in Table 3, are attributed to multicollinearity.)

Table 3. Multiple Regression of Covariates and Student Satisfaction with Learning.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficient</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.663</td>
<td>.484</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>.460</td>
<td>.189</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>.149</td>
<td>.176</td>
</tr>
<tr>
<td></td>
<td>Level of Education</td>
<td>-.122</td>
<td>.080</td>
</tr>
<tr>
<td></td>
<td>Rank</td>
<td>.115</td>
<td>.067</td>
</tr>
<tr>
<td></td>
<td>Years of Service</td>
<td>-.043</td>
<td>.020</td>
</tr>
</tbody>
</table>

*Significance defined $p \leq .05$

The final table, Table 4, presents results of multiple regression for the outcome variable of student academic performance (GPA), and the covariates of age, gender, level of education, rank, and years of service were utilized as predictor variables. The regression model here proved that there is statistical significance, wherein $F (5, 75) = 6.329$, and $p = .001$, with an overall model fit of $R^2 = .250$. Specifically, this model found three of the five covariates to be significant predictors of military student academic performance: age, gender and level of education. Covariates of rank and years of service were found not to be significant predictors of student performance in continuing education in this study.
<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>4.324</td>
<td>.625</td>
<td>6.913</td>
<td>.000</td>
<td>.315</td>
<td>3.176</td>
</tr>
<tr>
<td>Age</td>
<td>.543</td>
<td>.209</td>
<td>.448*</td>
<td>2.598</td>
<td>.011</td>
<td>.860</td>
<td>1.162</td>
</tr>
<tr>
<td>Gender</td>
<td>-.475</td>
<td>.229</td>
<td>-.216*</td>
<td>-2.069</td>
<td>.042</td>
<td>.732</td>
<td>1.365</td>
</tr>
<tr>
<td>Level of Education</td>
<td>-.490</td>
<td>.103</td>
<td>-.539*</td>
<td>-4.761</td>
<td>.001</td>
<td>.727</td>
<td>1.376</td>
</tr>
<tr>
<td>Rank</td>
<td>.065</td>
<td>.089</td>
<td>.083</td>
<td>.728</td>
<td>.469</td>
<td>.727</td>
<td>1.376</td>
</tr>
<tr>
<td>Years of Service</td>
<td>-.007</td>
<td>.023</td>
<td>-.057</td>
<td>-.324</td>
<td>.747</td>
<td>.308</td>
<td>3.244</td>
</tr>
</tbody>
</table>

* Significance defined p ≤ .05

### Discussion

This study hypothesized that military personnel, participating in continuing education while stationed overseas, experience studying abroad differently than civilian populations. This hypothesis is based on the belief that self-esteem, self-efficacy and cultural adaptability, as related to academic performance and satisfaction with learning, are context-based constructs and impacted in multiple ways by demographic factors (such as age, gender, education, rank and years of service), depending on the environment in which the learning experience occurs. In this study, two environments – the host nation and the military organization – exert influence on student learning.

A narrative review of the findings follows. This discussion provides insight into the meaning behind the statistical results and ultimately the implications for the field of practice.

### Age and Generational Differences

This study found that age of military personnel significantly impacts both academic success and satisfaction with learning of individuals participating in continuing education while overseas. Age, as a trait, however, was measured by group in this study. Approximately half of the individuals in this study self-identified as members of the Millennial generation (those born after 1980), and over one-third self-identified as being of Generation X (those born after Baby Boomers, yet earlier than the Millennials). These numbers are consistent with Department of Defense reports (2016).
The significance of this age distribution is that each generation maintains distinct attitudes and behaviors about life (Donatone, 2013). To successfully support military personnel in continuing education, institutional help and resources must work with, not against, generational differences that are present in the troop populations. For example, one of the behaviors associated with success in academic programs is persistence, or staying-the-course (Shoukat, Haider, Munir, Khan & Ahmed, 2013). The best approach by the military to help personnel of Generation X to stay-the-course in their studies is to leave them alone. Generation X individuals prefer, when presented with a challenge, that supervisors be hands-off. Gen-X individuals are comfortable with input, however, only when constructive (in their minds) and when it results in pragmatic outcomes (Scheef & Thielfoldt, 2014).

Military students of the Millennial generation, in contrast, may react quite negatively to a hands-off approach when it comes to supporting their continuing education endeavors. These individuals desire attention. Although similar to Generation X individuals in welcoming a challenge, Millennials prefer structured oversight. Millennials are not only more comfortable with authority, they feel entitled to its support and benefits (NBC News, 2013).

Another example of age-related difference in military personnel participating in continuing education involves individual management of time and stress. Success of adult learners depends on the ability to juggle multiple responsibilities from diverse arenas, including family, work, military, personal and education (Fairchild, 2003). Also, freeing up the time needed to focus on academic studies requires an individual to let go of less important yet competing tasks (Shoukat et al., 2013; Wetzel, 2010). The problem is that some Millennial students may initially possess minimal skills for thinking for themselves, making independent decisions, or resolving conflict when presented with competing demands (Donatone, 2013).

The challenge for military leadership is to develop support for military students that is aligned to the generational needs of the individual. (This is particularly important when the individual is enrolled in continuing education that is not related specifically to combat.) Possible strategies which military joint command units may pursue include mentors, group training sessions, and online resources. This help should address life areas that may cause stress due to time management issues and other demands, such as childcare, tuition reimbursement, and housing within proximity to classes. It is important to remember however that each resource must be aligned specifically to generational attitudes and behaviors of the student.

Gender Perspectives

Similar to the construct of age, this study found gender of military personnel to impact individuals’ satisfaction with learning while participating in continuing education overseas. This is consistent with the literature, and utilizing individual mentors, as discussed earlier for age and generational differences,
works here as well. For example, a young woman may feel less confident than her male counterpart to express her views or request help in a male dominant environment such as the military (Andrews, 2006). The mentor’s task involves more than simply instructing the girl to speak-up in class or contact her joint command unit supervisor for assistance. To ensure effective support, the mentor must work to enhance the young woman’s self-assertiveness and help her to build self-confidence within the military environment (Andrews, 2006).

Leadership within joint military commands may also encourage identified mentors to incorporate role-modeling and networking strategies when support personnel in continuing education. Role models exhibit desired behaviors that can be emulated (Sowders, 2015). Networks result from mentors and mentees formalizing processes that establish relationships which bring benefits to the participants (Rhodes & Kellerman, 2006). Role-modeling and networking provide access to mentors, help to dispel stereotypes, and aid in strengthening behaviors in mentees and subordinates (Sowders, 2015).

Utilizing mentors and role-models to support military personnel in continuing education while overseas is likely to facilitate friendly and open environments conducive to respecting gender differences. This may ultimately increase academic performance of both males and females assigned to joint command units abroad.

**Level of Education**

Another factor related to satisfaction with learning of military personnel studying abroad (in non-military-related courses) is an individual’s current level of education. As participation in academic programs constitutes a very individual endeavor, military personnel benefit from the ability to look into his or her own past educational experiences and use this to inform the learning process. For this reason, mentors and role models may help military students not only identify past positive and negative academic incidents, but also to recognize opportunities for remediating outcomes. In this regard, mentors and role models may help military students identify incremental improvement and progress through interventions such as teachable moments.

Spiegler (2012) advocates the use of teachable moments (unplanned opportunities for learning), whereby a mentor facilitates student self-reflection to learn from past positive and negative educational experiences. The rationale behind the use of role models and mentors to facilitate teachable moments, is the belief that these individuals possess wisdom and experience to communicate across diverse lines, and with a significant commitment to the future, and also are able to facilitate alignment of individual and organizational goals and objectives (Hain, 2013).

It continues to be unclear, however, whether military personnel see participation in continuing education simply as a means to an end (i.e., for military rank and promotion), or as a specific academic experience and part of lifelong learning.
Rank and Years of Service

This study found that the factors of rank and years of service impact military personnel differently with regards to participation in non-military continuing education while overseas. Rank registered no significant relationship with academic achievement and satisfaction with learning; years of service marked a direct impact on military student satisfaction with learning. This result is puzzling in that rank and years of service are both defined by the military, and as such, it is expected that both constructs would behave similarly (that is, have limited or no relationship with a non-military continuing education activity). The fact that this is not the case suggests that the contextual reference for military rank may differ from the contextual reference for years of service in the military.

Military rank, as discussed earlier in review of the literature, represents one of the last remaining caste systems (i.e., officers and enlisted) in the United States and other countries, existing as an organizational hierarchy that sustains authoritative oversight, and a slow, measured advancement through the system (Goodale et al., 2012). Rank is defined primarily in terms of the military environment, via combat-based actions and accomplished field missions. Within this context, military personnel participating in this study may conceptualize the construct of rank only as related to garrison life and combat-readiness. Consequently, the influence of military rank on academic performance and satisfaction with learning becomes less notable for personnel, particularly when outside the context of the military environment (i.e., participating in non-military continuing education while overseas).

Research by Lipscomb (2015) supports this contextual reference, or organizational-specificity, when it comes to investigating rank and promotion in the military. For example, education within the context of a military organization is often viewed as a means to an end, rather than a specific outcome itself. Education and training represent discriminating factors for promotion boards. College courses and training programs completed by an applicant are reviewed for combat and field application that support increased military rank and pay. Participation in non-combat related studies that are not required by the military for promotion, sets a different context – one with minimal military significance (Wong, Bliese, & McGurk, 2003).

Finally, regarding the trait of years of service, the direct relationship of this demographic factor with student satisfaction with learning in non-military continuing education while overseas suggests one of two phenomena. First, military personnel may view service time from an individual (or personal) perspective, and not from a collective perspective defined by membership in the military. Or, these individuals do in fact view time in service from a military (i.e., collective) perspective, yet this view is not inconsistent (psychologically) with individual or personal goals. One explanation for this is that the longer an individual is in the service, the more likely he or she is to experience a positive
impact on career from both combat-related and non-combat-related educational pursuits.

Implications

As is evident through the narrative discussion, not all demographic factors studied in this research impact military personnel educational experiences in the same way. Considering the context-based construct of self-esteem, self-efficacy and cultural adaptability, two primary environments exert influence on these traits – the host nation and the military organization. Research by Hsu (2010) suggests that military culture generally impacts only issues and characteristics related to combat. Studies by Greene, Buckman, Dandeker and Greenberg (2010), however, recognize that the impact of military culture may extend to attitudes and behaviors related to family, education and race.

Following is a discussion of the implications of this study. These implications are aligned to the contextual influence that multiple environments may exert on military personnel participating in continuing education while overseas. Considered in the discussion are the significant results of this study, including the positive relationship between self-esteem and academic performance and student satisfaction with learning, and the significant impact of age, gender, level of education and years of service on military student learning experiences.

Can-do Attitude within Military Environment

The first implication derived from this study focuses on the significant relationship between self-esteem of military personnel participating in non-military-related continuing education while overseas and academic performance and student satisfaction with learning.

Empirical evidence in this study supports a positive relationship between an individual’s self-esteem and satisfaction with learning of OCONUS personnel participating in non-military-related continuing education while overseas. This finding implies that troops believe they can cope with challenges related to studying overseas, and are generally satisfied with the learning experience during the process. Differences among military personnel exists, however, and may impact individual learning experiences. Consequently, leadership must align support for continuing education in non-military-related courses and programs to specific generational needs, diverse gender perspectives, previous education and years of service of participating military personnel.

Another benefit of knowing this information is that it informs military leadership and practice in the field. Supervisors become aware of the importance of fostering these can-do attitudes for non-military-related academic pursuits (just as they do for activities related to combat and war-readiness), and support members’ “dreams of higher education as an attainable outcome” (Watson, 2016, para. 1). A note of caution, however. Leadership behavior which artificially inflates self-esteem of military personnel, as related to continuing education,
must be avoided. Promoting unrealistic expectations often results in overextended commitment and unexpected failure (Sack, 2012).

**Capabilities May Not Transfer from the Battlefield**

The second implication of this study is that this *can-do* attitude toward continuing education does not appear to transfer to increased academic performance in non-military-related courses while stationed overseas. This is curious, in that it is expected that military personnel who believe they are able to cope with the challenge (i.e., self-esteem) of non-combat behaviors such as continuing education, would then also possess the confidence to act (i.e., self-efficacy) and execute successfully associated academic performance. However, this is not the case. Why? The answer may be the perspective with which continuing education in non-military courses is viewed by military personnel, and the misalignment of this view with military culture.

The evolution of self-efficacy of a soldier appears to evolve somewhat differently than self-esteem. Initial participation in the military often lowers the trait of self-esteem in new recruits, with feelings of inadequacy and inability (Owens, 1992). However, over time, individuals begin to articulate new role clarification and role demands within the context of the military, and an increase in feelings of control reoccur and mastery of related tasks takes place (MacKenzie & Armstrong, 2004). Unfortunately, the belief and confidence to effectively execute the new military position does not appear to transfer to non-military activities. Troop confidence and related behaviors are often solely tied to military capability (i.e., social self-efficacy), thus manifesting itself selflessly on the battlefield, yet not transferring to non-military activities (NBC News, 2013).

Rawat (2011) recognizes the potential psychological conflict here when military personnel participate in non-military continuing education while overseas. A disconnect may develop between individual (i.e., personal) and group (i.e., military) goals and objectives. Rawat (2011) advocates strengthening simultaneously “… a commitment to [self] awareness, independent thinking, integrity [and] independent responsibility” (p.131). Research by Rawat (2011) also supports [military] leaders as “role-models”, providing appropriate strategies for aligning individual and group goals (p. 126). The intended outcome is to promote successful academic experiences for personnel in continuing education, regardless of the focus of the content (i.e., military or non-military).

**Multiple Communities yet Limited Cross-Cultural Experiences**

Members of joint military command units, participating in continuing education overseas, maintain membership in two primary social groups – the host nation, and the military community. New surroundings and unfamiliar cultures within both environments can present social barriers, as well as, unique professional and academic demands. Challenges may include foreign language acquisition, intercultural communication, and diverse cultural beliefs (Gao, 2008; Lesenciuc & Draghici, 2011).
Within the host nation, researchers describe the need to build intellectual awareness and intercultural sensitivity to facilitate social interaction, understanding and learning (Sam & Berry, 2010). Military environments, on the other hand, including that of the joint command units overseas, represent unique organizational cultures that are quite different from academic, personal or other professional groups (Greene, Buckman, Dandeker, & Greenberg, 2010; United States Department of Veterans Affairs, 2016). Traditional military culture stems from a need for combat-readiness, and emphasizes discipline and hierarchy, as well as, prioritization of the group over individuals (Hsu, 2010).

The final implication derived from this study focuses on this exact point – the phenomenon of military personnel existing simultaneously in multiple communities. Cross-cultural adaptability in this study appears to require communication and interaction across military and non-military environments, rather than across multiple diverse ethnic and religious communities (i.e., the sample population is from the United States and stationed in England, an English-speaking western European country). Consequently, the reason cultural adaptability does not illustrate significant relationships with academic performance and satisfaction with learning may be because these military personnel maintain only a collective identity for cultural adaptation, which is directly aligned only to the military community. In contrast, the military student’s individual identity fosters a personal perspective, and it is with this perspective that the student appears to participate in continuing education not related to combat or other military topics.

A key learning here is that leadership must be informed regarding troop disposition toward military and nonmilitary environments; and as implied previously, strive to align and integrate collective and personal goals to facilitate growth and success of military personnel across both military and nonmilitary environments.

**Conclusions**

This study concludes that military personnel, participating in non-military continuing education while overseas, sustain multiple self-identifies driven by the specific environment or community within which they are engaged, as well as, the activity itself. The perceived alignment (or misalignment) of military-member community and the continuing education community, impacts perceptions regarding self-esteem, self-efficacy and cultural adaptability, and the relationship with academic performance and satisfaction with learning.

The importance of this study relies on understanding the nature of competing contexts by the multiple communities in which military personnel operate overseas. As these military personnel seek help and support from within the joint command unit for non-military-related continuing education, the source of this support may be perceived as incompatible with the individual’s need. For example, the source of the support is military (i.e., the joint military command
unit, with collective perspective), yet the recipient (i.e., troop member) is operating from a personal or individual perspective within a nonmilitary continuing education environment.

To provide support needed by military personnel for academic success and satisfaction with learning while participating in non-military continuing education, this study concludes that military leadership must take the initiative to develop strategies that help troop members align personal (individual) and group (military) goals. This may be accomplished through role modelling and the use of mentors. As role models, commanders may exhibit desired attitudes and behaviors for self-awareness and independent thinking, while simultaneously aligning multiple goals for the benefit of both the individual and organization. Utilizing professional and/or peer mentors as personal advisors, ensures that support takes into account differences among troops, and embraces diverse perspectives related to age, gender, level of education and years of experience in the military.

Finally, this study concludes that mentors and role models, engaged by leadership, must recognize the phenomena of both collectiveness and exclusivity of current military culture, and not overlook its contextual reference. Those providing support to military personnel enrolled in nonmilitary-related continuing education must understand the impact of context-specificity on many personal characteristics, including self-esteem, self-efficacy and cross-cultural adaptability, as well as, an individual’s rank. Support for military personnel must acknowledge and respect the phenomena of these traits within military environments, and recognize that at times, they manifest themselves in a military-specific manner that does not necessarily translate to non-military activities such as continuing education in non-combat related academic courses and programs.

**Limitations**

The primary limitation of this study is a lack of a control group (i.e., international students or other civilian group) to test the impact of contextual reference on the constructs of self-esteem, self-efficacy and cultural adaptability, and the corresponding impact of age, gender, education, rank and years of service on military personnel participating in nonmilitary continuing education while overseas. The strong context set by military organizations and host nations, demands a truly experimental research design to evaluate constructs from both an individual (personal) and collective (social and/or military) perspective. This type of study is needed to provide comparative data necessary to fully understand military personnel performance and satisfaction in nonmilitary-related continuing education while stationed overseas.

Another limitation of this study is sample size of the current study population. Power analysis determined the recommended number of participants based on three primary independent variables. Analyzing the demographic factors as predictor variables, requires increasing the number of study participants. Future
research of military personnel participating in nonmilitary-related continuing education must take this information into account when calculating sample size.

The third and final limitation of this study relates to the limited examination of the phenomenon of competing contexts from multiple environments in which troops operate. In addition to the host nation and the joint military command unit, military personnel may maintain strong ties to an original branch of service, as well as, personal communities which include one’s home, church and institution of higher education being attended.

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