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Student Engagement in an American Curriculum School in Myanmar

Peter Williams
Lehigh University

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Peter John Williams

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Proposed Candidate   Peter John Williams

Program Concentration   Educational Leadership

Major Advisor   Jill Sperandio

Residency   Summer, 2004 – Summer, 2012

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                            Curriculum School in Myanmar

Special Committee   _____
                            Jill Sperandio
                            Professor of Education

                            _____
                            Floyd Beachum
                            Program Director of Education Leadership
                            Associate Professor of Education

                            _____
                            Roger Douglas
                            Director of Graduate Programs
                            The University of British Colombia

                            _____
                            Louise Donahue
                            Professor of Practice

Language Requirement   Not Applicable

Qualifying Exam   December 2011

Previous Degrees   B.A., University of Minn, 1993
                            M. Ed., University of Wis., 1996

Approved and recommended for acceptance as a dissertation in partial fulfillment
of the requirements for the degree of Doctor of Education.

_____   _____
Date   Dr. Jill Sperandio, Major Advisor

_____
Accepted Date

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Abstract

The purpose of this study was to measure engagement levels of a population of non-American (Burmese) students attending an American curriculum school overseas, and then compare these engagement levels to those of U.S. students attending an American curriculum school in the United States to see if there were differences in student engagement levels along ethnic, gender, and grade level categories, across cognitive, behavioral, emotional and overall engagement dimensions. The further purpose was to seek out factors that students and school leaders believed affected students' engagement at the study site.

The rationale for this is that student engagement is of interest to school leaders, because it is positively linked to academic achievement (Garcia and Pintrich 1996, Covington 2000), positive peer and teacher relationships (Willms, 2003), and the long-term economic success, health and well being of students as they grow into adulthood (Willms, 2003, Zimmerman & Matinez-Pons, 1990).

The review of current literature suggested that factors that affect students' engagement include: the school environment, teacher relations, self-esteem, grade level, minority and minority language status, gender, and school administration. All of these factors are further influenced by the actual culture in which students learn. Peshkin (1990) linked curriculum to cultural assimilation of a dominant culture on a subordinate culture. This suggested it is plausible to assume that non-native English speakers have a greater resistance to the American curriculum, based on both their home culture and language. This study sought to explore this possibility.

This research is unique in that it is the first time that student engagement levels for an American curriculum school overseas had been measured. Since the study included awareness of leadership of potential differences in student engagement, and the need to modify curriculum to increase engagement for subsections of the student population, it should be of interest to educational leaders overseas and in the United States who serve multi-ethnic student populations.

This research employed a mixed-method convergent design model (Patton, 2002), using Frontier's (2007) survey of student engagement, and interviews with the Myanmar school's teachers and administrators. The study found that the Burmese students reported their engagement levels in the American curriculum courses to be similar to those of the American students in the U.S. private school with no significant difference by gender, grade level and ethnicity in cognitive, behavioral or overall dimensions (p's. > .05). The study also showed that the Burmese students reported significantly lower (p. < .05) emotional engagement levels by ethnicity. Students and teachers identified numerous factors that affect student engagement, including active learning, critical thinking activities, partner/group work, and the relationship between students and their teachers.

School leaders who serve multi-ethnic populations should be aware of possible differences in student engagement by subsections. More research is needed to determine to what extent factors identified by students and teachers at the study site can positively affect student engagement.

Chapter 1

Introduction

Student engagement, defined as the extent to which students identify with and value the outcomes expounded by the school, and participate in academic and non-academic school activities, has received increasing attention from researchers, school leaders, and policy makers since the turn of the 21st century (Fredricks, Blumenfeld, & Paris 2004; Marks, 2000). While engagement is often used synonymously with motivation in some research literature (National Research Council, 2000), it assumes a more multi-dimensional nature in others (Frontier, 2007). When a broader definition is adopted, engagement includes emotional, behavioral, and cognitive aspects (Fredricks, Blumenfeld, & Paris, 2004).

Student Engagement and National Curriculums

To date, most research studies of student engagement have been conducted in the context of students engaged with their own national curriculums (Frontier, 2007; Willms, 2003; Yazzie-Minz, 2009). National curriculums themselves are defined as being specific to the culture in which they are created (Boomer, Lester, Onore, & Cooke, 1992; Peshkin, 1990), and designed around understandings and pedagogy that are culturally specific (Giroux and Simon, 1989: Peshkin, 1990). Within national curriculum schools, student engagement is positively linked to academic achievement (Covington, 2000; Frontier, 2007; Garcia and Pintrich, 1996), with more engaged students likely to earn better grades and have higher performance on standardized tests (Fredricks, Blumenfeld, & Paris 2004; Marks 2000). Actively engaged students are also more likely to have positive relationships with their peer group and teachers (Willms, 2003), follow classroom rules, and have a greater sense of happiness (Fredricks, Blumenfeld, & Paris 2004).

Researchers further theorize that student engagement is closely tied to the long-term economic success, health, and well being of students as they grow into adulthood (Willms, 2003; Zimmerman & Martinez-Pons, 1990).

National Curriculum Schools in the United States

In national curriculum schools in the United States (henceforth referred to as American curriculum schools), multiple factors are linked to student engagement levels; including grade level, gender, ethnic minority, and language minority status. With respect to grade level, students show lower rates of engagement as they age from elementary school to middle school and middle school to high school (Andermann, 2003; Marks, 2000). This change in engagement is particularly evident in middle school grades, where perceptions of ability, motivation and attitudes toward school decline (Marsh, 1989). Gender is also a factor in student engagement, with females typically showing higher levels of engagement than males (Frontier, 2007; Wang, Willet & Eccles, 2011). Another factor that has been correlated to student engagement is ethnicity, with African American students and Latino students showing lower engagement, based on retention and graduation rates (Chapman, Laird, & KewalRamani, 2010). Furthermore, students who have a language minority status--as defined by language used at home and proficiency in English--also show lower engagement levels than students who come from English-speaking homes and are proficient in English (Paret, 2006). While the findings of these researchers suggest that ethnicity and home language affect student engagement within United States schools, there is a lack of research to show how students from different nationalities engage in the American curriculum in schools abroad.

Student Engagement in American Curriculum Schools Abroad

Currently, over 1,370 schools abroad identify themselves as offering an American curriculum (ISC Research, 2012). These schools share the characteristics that their curriculum leads into American Advanced Placement (AP) examinations and ends with an American high school diploma. (ISC Research, personal communication, July 14th, 2012). However, as previously noted, there is a lack of research into how students from cultures outside of the U.S -- as defined by the dimensions of ethnicity, location, and social class (Jones, 2001) -- interact with an American curriculum in schools abroad. Recent findings on student engagement (Frontier, 2007; Willms, 2000), when coupled with current understandings of culturally specific curriculum (Boomer, Lester, Onore, & Cooke 1992; Hollins, 1996; Peshkin, 1990), as well as recent research showing the lower engagement levels of ethnic (Chapman, Laird, & KewalRamani, 2010) and language minority students within the United States (Paret, 2006), raise questions about students' engagement in a curriculum that is designed for a culture other than their own. This study explores what factors students from a culture other than the U.S. identified as increasing or decreasing their engagement while attending an American curriculum school. It also explores differences in engagement of non-American students in an American curriculum school, as a whole group and by gender and grade level. Additionally, this study examined the perceptions of the teachers and administrator at an American curriculum school abroad, as to the factors they believe increased or decreased student engagement. Finally, given the link between engagement and student outcomes, this study sought out what measures school leaders took to increase the engagement of their students. All of this is pertinent, given the increasing numbers of United States schools, as well as American curriculum schools abroad, that serve multicultural populations.

The Study and Research Questions

I examined the above questions in the context of an American international school in Myanmar (formerly Burma). I measured the levels of engagement of Burmese male and female middle school students at Yangon Academy, which offers an American curriculum in English to Burmese students, where the core subjects of mathematics, science, social studies, and language arts are taught by certified American teachers (3 from the United States, one from Canada), all with prior experience teaching in the United States and the school is led by an American-trained administrator, with prior experience teaching in the United States. The purpose of this study was to explore the levels of Burmese students' engagement in an American curriculum school in Myanmar, and compare these with established levels of engagement for U.S. students in U.S. schools.

I replicated, in part, a student engagement study conducted by Frontier (2007), using a survey instrument that Frontier designed to measure student engagement in the United States. I then compared the Burmese students' levels of engagement to the levels of engagement of U.S. students in American curriculum schools within the United States, using the data set generated in Frontier's original study. Additionally, interviews were conducted with the teachers and administrator at Yangon Academy, to triangulate and validate the student survey results and also to gain a deeper understanding of the Burmese students' engagement.

This study examined: 1) Levels of student engagement by grade level and gender of Burmese middle school students in an American curriculum school in a non-U.S. cultural environment; 2) Differences in engagement between Burmese middle school students in an American curriculum school in Myanmar and American middle school students in American

curriculum schools in the United States; 3) Factors that may explain similar and differing levels of student engagement in the Burmese students attending an American curriculum school in Myanmar and the American students attending American curriculum schools in the United States. Using the same measurement for statistical significance (P. > .05) as Frontier (2007), my hypothesis was that the Burmese students' engagement levels would differ significantly from their American counterparts across measurements of engagement by ethnicity, gender and grade level. The null hypothesis that this study sought to disprove is that there were no significant differences in engagement between the Burmese students and the American students engaged in learning an American curriculum.

The research questions were:

1. What levels of school engagement do Burmese students at Yangon Academy demonstrate? Are there differences by grade level or gender?

2. Do Burmese middle school students in an American curriculum school show different levels of student engagement from American students when compared by grade level and/or gender?

3. What factors do the Burmese middle school students at Yangon Academy identify as increasing or decreasing their engagement with their school?

4. What factors do school leaders (administration and teachers) of Yangon Academy perceive as affecting the engagement of their middle school students?

Research Site

The school site chosen for data collection was Yangon Academy, a Burmese international school with an American curriculum. Data from this school was compared with existing data from an American curriculum school in the United States. Yangon Academy in Myanmar was chosen as a site for data collection due to its students' relative isolation from U.S. culture, outside of the school (study site) itself, in order to see to what degree students abroad, with little or no exposure to American culture, would actively engage in an American curriculum.

This isolation from the United States and its American curriculum is important because, as Betancourt and Lopez (1993) noted, when ethnic groups interact with one another, culture may be transferred. This interaction can be either person to person or through the media. For most of Myanmar's history, the country was ruled by an authoritarian government which restricted access to foreign media and the internet, thus limiting exposure to American media culture. As of 2009, using the most recent figures available, only 110,000 Burmese people had access to the internet, out of a population in excess of 50,000,000 (*CIA World Fact Book*, 2012). The population speaks Burmese and local media uses Burmese.   Currently, there are no American students attending this school.   Since the Burmese students will have had very little opportunity for cultural transference outside of their school, a study of to what degree they engage in the American curriculum of the school should illuminate how well students engage in a national curriculum designed for a culture other than their own. It should also illuminate whether or not American school leaders abroad need to make adaptations to their school's curriculum to increase the engagement of non-American students.

Summary of Method, Research Design, and Data Analysis

This study was a mixed-method study using a convergent design model based on the works of Creswell and Plano Clark (2011), with the purpose of establishing levels of student engagement of Burmese students in an American curriculum school. This study compared these levels with engagement levels of American students within American curriculum schools in the United States. A convergent design model was chosen for this research (Creswell & Plano Clark, 2011). The convergent design model is used when a researcher wishes to find "different but complementary data on the same topic" (Morse, 1991, p.122.; cited from Creswell & Plano Clark Rel) in order to better understand the research problem. This convergent design model consisted of two phases (See Appendix A).

In phase 1, quantitative data was gathered by replicating the student engagement survey portion of Frontier's (2007) student engagement study (See Appendix B). Qualitative data was also gathered from the Burmese students using a few open ended questions in order to validate and illicit greater depth and understanding (Creswell & Plano Clark, 2006). (See Appendix C) . Further qualitative data was obtained by interviewing the students' American teachers and the school's administrator in order to validate, and further expound upon findings from the student engagement survey (See Appendix D).

In the second phase, the quantitative data obtained from the Burmese students was then compared with a prior data set obtained from Frontier's (2007) student engagement study with American students, using a 3 way factorial Anova. The final results were interpreted using the theoretical framework put forth by Frontier (2007), which states that engagement is a multidimensional construct that has distinct components, and that engagement differs by gender,

grade level and minority group status within the United States. The results were further interpreted based on current literature on factors that affect: engagement by gender and grade level, overall student engagement, emotional engagement, and factors that affect language minority engagement.

Definition of Terms

Student engagement – a multi-dimensional construct consisting of emotional, behavioral, and cognitive components.

National curriculum schools – schools that are specific to the culture in which they are created, and that are designed around understandings and pedagogy that is culturally specific.

American curriculum schools – schools within the United States and abroad that utilize American curriculum, standards and instructional practices.

Culture – the ethnicity, location, age, social class, and period of time of a specific group of people.

Mixed method study – a study that utilizes both qualitative and quantitative research in order to gain a better understanding of a phenomena than could be obtained by either research method alone.

Convergent design– A research design model that brings together the different strengths of qualitative and quantitative methods and is used when researchers wish to triangulate qualitative and quantitative data with the purpose of corroboration and validation of their research.

Chapter 2

Literature Review

The purposes of this literature review are: to explore the history of the concept of student engagement, offer a more expansive definition of the term, and discuss the importance of the concept. Further purposes include: examining the results of previous research for factors that may affect student engagement, including school environment, grade level, gender, minority status and school leadership. Also discussed here is an expanded definition of national curriculum schools .

Defining the Concept of Student Engagement

Current understandings of the construct of student engagement suggest that it is a complex structure of interactions between students and their academic and social environment (Fredricks, Blumenfeld, & Paris, 2004). Willms (2003) describes student engagement as students' attitudes toward school and their participation in school activities, and he elaborates that engagement is seen as a "disposition towards learning, working with others, and functioning in a social institution which is expressed in students' feelings that they belong at school and in their participation in school activities" (Willms, 2003, p. 8). Yazzie Mintz (2010) posits that student engagement is the relationship between the student and their peers, school adults, the instruction they receive, and the curriculum they are exposed to. Finn and Voelk (1993) note that student engagement contains emotional and behavioral components. Cunningham, Wang, and Bishop (2006) concur and add that student engagement includes affective and cognitive elements as well. Thus, the definitions of engagement and how to measure it vary from study to study (Dweck & Elliot, 2005; Frontier, 2007). Therefore, the challenge of studying student

engagement lies in identifying a definition that addresses the complexity and depth of the construct (Frontier, 2007). Common traits of engagement that appear consistently across the literature include: attendance, participation in school activities, high grades, amount of time spent on schoolwork, and the rate of homework completion. Other definitions include affective and cognitive elements such as connection to the school, teachers and peers, motivation to learn, student safety and self-esteem (Cunningham, Bishop, & Wang, 2006).

In order to unify a definition, Fredricks, Blumenfeld, and Paris (2004) suggested three main aspects of student engagement: behavioral engagement, cognitive engagement and emotional engagement. Behavioral engagement is concerned with student attendance and participation in academic, social and extracurricular activities. Behavioral engagement is an important factor in achieving academic success, as well as preventing students from dropping out of school (Connell & Wellborn 1991; Finn 1989; cited from Fredricks, Blumenfeld, & Paris REL). Cognitive engagement reflects the student's engagement in learning content and skills, focusing on the student's level of investment in learning. It refers to a thoughtful, purposeful approach to school tasks as well as the effort necessary to master complex new skills and difficult ideas. In short, it is a student's cognitive investment in learning (Fredricks, Blumenfeld, & Paris 2004). Emotional engagement refers to the student's positive and negative feelings towards their teachers, classmates, school and the coursework (Frontier, 2007). Emotional engagement is concerned with the extent of positive and negative reactions to school, including teachers, classmates, and academics. Positive emotional engagement can build emotional ties to the school and enhance a student's motivation to work (Connell & Wellborn 1990; Finn 1989, cited from Fredricks, Blumenfeld, & Paris REL). Building on the prior works of Fredricks, Blumenfeld, and Paris (2004), Frontier (2007) defined student engagement as "a multi-

dimensional construct consisting of emotional, behavioral, and cognitive components" (p. ii). It is this definition that I will use for this study.

Factors Affecting Student Engagement

A number of factors have been identified by researchers as linked to student engagement in school, such as teacher and peer relationships, school environment, and grade level. Other factors include: student self-esteem, gender, minority status, and language minority status. The influence of these different factors can vary from school to school, and also from student to student.

The importance of a student's perceived relationship with their teachers is a concept repeatedly cited in literature on student engagement. Students who report strong relationships with their teachers also report more positive attitudes towards school and higher academic motivation (Eccles, Wigfield, Midgley, MacIver, & Feldlaufer, 1993). In a longitudinal study of 248 middle school students, Wentzel (1997) found that the perceived care from teachers was a predictor of motivational outcomes, even if previous motivation and performance were taken into account. Caring teachers were described as having democratic interaction styles, developing expectations for their student's behavior based on individual differences, modeling a caring attitude toward their own work, and giving constructive feedback to students. This is supported by Skinner and Belmont (1993), who studied 144 upper elementary students' emotional and behavioral engagement and concluded, through correlation and path analyses, that teachers' support for students' autonomy and optimal structure predicted student motivation across the school year. It was also found that a reciprocal effect on student motivation and teacher behavior was present. Students who showed higher initial behavioral engagement received higher positive

teacher responses than those students who were less engaged, thus creating a cyclical relationship between student-teacher relationships and student engagement.

The school environment may also affect student engagement. Osterman (2000) posited that school environment is an important factor in determining a student's sense of belonging and satisfaction. Cunningham, Wang and Bishop (2006) concurred and further emphasized the importance of students' perception that they are members of the learning environment. They note that students who feel connected to their school are more motivated to achieve and less likely to engage in anti-social behaviors. Resnick (2000) supports this, concluding that school connectedness is protection against various risk behaviors, which can lead to total disengagement from school.

Grade Level

Researchers have noted that whole class student engagement levels are higher amongst young elementary students and decline through upper elementary and into the high school years (Andermann, 2003; Frontier, 2007; Marks, 2000).   This change in engagement levels has been partially attributed to students shifting perceptions of ability, which in turn affects motivation and attitudes towards school. It is particularly evident in middle school grades six and seven (Epstein & McPartland, 1976; Marsh, 1989). Marks (2000) analyzed engagement survey responses from 3669 students divided into mathematics and social studies classes across elementary, middle and high school grade levels. He observed that students' mean engagement scores, unadjusted for any other variables, were consistently lower as grade levels progressed, regardless of the subject area. Later work by Frontier (2007) mirrored this conclusion, with student's reporting lower mean engagement levels as they progress from grade 6 to grade 8.

Middle School

Middle school has received increased attention in recent years by academic scholars. There is significant literature that links student success in middle schools as a gateway to ensuring student success both in later academic pursuits as well as future career pursuits (National Middle School Association, 2003). Zigrossi, Fuller, Van Beck and Simmons (2011), citing research based on Texas ACT scores, concluded that students who are not successful in middle school are less likely to be successful in high school or their later collegiate or career pursuits, and that high-performing middle schools sought out measures of student engagement and use them to inform decision making. Fuller (2011) reported that the performance of 8th graders is particularly associated with individual outcomes in high school. Finnan and Kombe (2011) report that middle school students who struggle academically are far more likely to drop out in high school.

Furthermore, a number of studies imply that student engagement may be most susceptible to intervention in the middle school years (Frontier, 2007). Wells (1989) posited that interventions and initiatives in elementary and middle school hold a greater chance of success in preventing student disengagement. This was confirmed by the later works of Balfanz and Letgers (2004), and Kennelly and Monrad (2007). It is also supported by Wentzel (1997), who posited that student-teacher relationships are a critical factor in motivating middle-school students to engage in social and academic activities in the classroom.

Gender Effects on Student Engagement.

There have been a number of studies conducted recently on the effects of gender on student engagement. Frontier (2007) found in his own engagement studies that boys consistently

demonstrated lower levels of engagement than girls across all measured domains. Wang, Willet and Eccles (2011) studied 1103 middle school students in the United States, in order to compare students based on their cognitive, behavioral and emotional engagement. They reported that there were significant differences in emotional and behavioral engagement by gender. Boys scored significantly lower than girls in both of these dimensions. However, the researchers further reported that there was no significant statistical difference between the cognitive engagement of both groups. Gentry, et al. (2002) analyzed student perceptions of enjoyment, interest, challenge, and choice. The results showed that girls scored higher than boys on students' enjoyment, interest and challenge at every grade level. The researchers concluded that the risk exists for adolescent males to dislike school in general, exacerbating other social and academic problems. Furrer and Skinner (2003) studied elementary students in grades 3-6 and concluded that boys generally showed less engagement academically and less enjoyment of academics than their female counterparts. They also found that the greatest positive effect on male student engagement was linked to a close relationship with the teacher. This led them to conclude that interpersonal ties with the teacher could provide male students with greater academic motivation than their female counterparts.

Gender differences varied greatly by country and by schools within countries (Willms, 2000). A study entitled The Program for International Student Assessment (PISA), was conducted by the Organization for Economic Cooperation and Development (OECD), where thirty two countries participated in a survey of 15 year-olds to see how well participants were able to use the skills and knowledge of their schooling experiences to meet the challenges facing them as they finished compulsory school. PISA found that while both male and female students were equally likely to feel a low sense of belonging at their school, female students who felt a

low sense of belonging were found to have a 7% higher level of participation than their male

counterparts. In their reported results, Willms (2000) concluded that there was a need for further

studies of emotional engagement by gender within individual countries.

Minority Engagement in National Curriculum Schools.

Both racial and language minority status have been linked to lower levels of student

engagement, as illustrated by national retention rates as well as graduation rates. Dropping out

may be viewed as the ultimate act of disengagement, as students who drop out cease to engage in

normal academic and social activities in their respective schools. As of 2009, the average drop-

out rate for all high school students across the United States was measured at 8.1%. However,

African American students had a higher drop-out rate of 9.6% and Latino Americans had an even

higher drop-out rate of 17.8% (Chapman, Laird, & KewalRamani, 2010). Language minority

students (students whose home language is something other than English), have fared even

worse, with drop-out rates that are 1.5 times higher than students who come from homes where

English is the first language (Cárdenas, Montecel, Supik, & Harris, 1992). It should be noted

that students who have a language minority status also show lower engagement than students

who come from English-speaking homes and are proficient in English (Paret, 2006). Even these

seemingly high drop-out rates are misleading, Cosby and Pouissant (2007, as cited in Beachum

& McCray, 2011) report that numerous individual urban schools may report extreme drop-out

rates approaching 50% among a minority subsections of their population. Clearly finding

measures to increase minority and language minority student engagement must be a priority for

educational leaders serving schools with multiethnic and multilingual populations.

Multiple factors are viewed as having a causational relationship with the higher drop-out rate of language minorities. These factors include socio-economic status, home language usage, and immigrant status (Paret, 2006). Steinberg, Blinde, and Chand (1984) concurred with these factors and also linked higher language minority drop-out rates to early academic failure in the classroom. Since the first years of schooling are crucial to later academic success (Farkas, 2003), and the cumulative nature of curriculum means that early learning is a necessary bedrock for later academic success (Alexander, Entwisle, & Dauber, 1993), ESL students may be susceptible to a negative downward spiral which, for some students, ends in dropping out of school.

School Leadership

School leadership is strongly linked to school improvement (Leithwood & Jantzi, 1999) and has further been linked to higher student engagement (Leithwood & Jantzi, 1999; Quinn 2002). In a study conducted with 8805 elementary and middle school students, across 110 schools in a large mid-western Canadian school district, students were surveyed to determine their perceptions of student engagement and family culture, in an effort to correlate this with transformational leadership initiatives. The researchers found a small but still significant correlation between school leadership and student engagement, with a correlation coefficient of (.07). This was supported by later research conducted by Quinn (2002), who studied 24 schools: eight elementary, eight middle, and eight high schools in the United States. Quinn (2002) surveyed students and teachers on six subscales of engagement then, using a correlation matrix, cross referenced this with measures of principal leadership. Quinn reported a significant correlation between principal leadership and student engagement. The results showed a high correlation coefficient both between principals as instructional leaders and student engagement

(.481), and between principals as communicators and student engagement (.485). Quinn postulated that a principal's ability to affect student engagement was greater at the higher and lower end of student participation than in those students whose participation levels fell into the middle. Quinn acknowledged that socioeconomic status is the greatest indicator of student engagement. However, he reasoned that a principal could have a significant effect on student engagement by modeling and supporting a constructivist approach to education, by creating a schedule that gives significant time for engagement to occur, and by publicly acknowledging and celebrating examples of student engagement within the school. This is supported by Gurr, Drysdale and Mulford (2006), who conducted research in Victoria, Australia, and concluded that effective school leadership included the demonstration of high student engagement by pupils within said leaders' school. It is further supported by Zigrossi, Fuller, Van Beck and Simmons (2011), who postulated that high performing middle schools use measurements of student engagement to inform the decision making process of school leaders.

Importance of Engagement

Researchers concur that student engagement is a valuable component of students' academic experience and offer various reasons for this conclusion (Frontier, 2007). Cunningham, Wang, and Bishop (2006) posit that students who feel connected to their school are more likely to achieve and less likely to disengage academically. Resnick, Bearman, Blum, Bauman, Harris, Jones, and Udry (1997) concluded that student engagement factors, such as school connectedness and respect for teachers, are protection against numerous student health risks, including delinquency, teenage stress and even teenage pregnancy. Ryan and Patrick (2001) found that the quality of student and teacher relations is positively associated with student motivation and attitudes towards school. Furthermore, student perceptions of their relations with

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teachers is directly associated with student academic achievement (Roeser, Midgley & Urdan, 1996). Finn and Rock (1997) have linked student engagement to academic success, and those students who actively engage in their own learning process, through self-regulation and the belief that they can achieve, will have greater success over time than those who do not (Zimmerman & Matinez-Pons, 1990). Citing longitudinal studies by Offord and Bennet (1994), Willms (2000) suggests that it is likely that student engagement is even tied to long term economic success in adulthood. Parson and Harding (2011) synthesized four prior research projects on student engagement, completed between 2006 and 2011. The first and the most salient of their conclusions is that student engagement is the most useful area of potential action for school improvement. They further posited that a correlation exists between teacher engagement and student engagement with each positively impacting the other. The authors concluded that "learning stemmed from student engagement," and that students need to see "the connection between their needs and the tasks they are asked to complete in schools for their futures" (p. 4).

 History of Research

Research into the concept of student engagement traces its roots back to the theoretical work of Alexander Astin in the 1980s (Axelson & Flick, 2011). After conducting a longitudinal study of student drop-outs, Astin (1984) observed that time available to apply oneself to academics and individual effort were tantamount to student success. Astin postulated that "the quantity and quality of physical and psychological energy that students invest in their academic experience" results in learning in a direct proportion to that involvement (p. 518).

In the early 90's, Finn and Rock (1993) conducted longitudinal research on student engagement by studying 1803 minority students from low income households over a four year

period of time.   Students were classified into three different groups based on their grades, test scores and academic persistence. These groups were classified as resilient (strong academic performance), non-resilient completers (low but passing academic performance) and non-resilient drop-outs (students who leave school prior to graduation).   Finn and Rock observed that students who demonstrated high behavioral engagement and a high self-locus of control, would be successful regardless of their minority status or socioeconomic background. The researchers further postulated that student engagement in school was greatly affected by variables such as student-teacher relations, student-parent relations and the environment of the school itself. Finn and Rock (1993) noted that patterns of engagement and disengagement develop over time and that a student's level of engagement is alterable or susceptible to intervention.

Shortly after that, Sinclair, Christenson, Evelo, and Hurley (1998) built on the work of Finn (1993). Sinclair, et al wished to prove that engagement can be positively affected, and subsequently conducted a treatment/control group study of 94 students across grades 7 through grades 9, who were identified as being at risk for dropping out of school as they aged. All of the students received mentoring support throughout grades 7 and 8, but only half of the students received mentoring support in grade 9. This support came in the form of mentors who actively monitored student progress and developed a positive relationship with those students and students' families.   Sinclair, et al observed that those students who had received mentoring support were more likely to be engaged in school and on track to graduate than their counterparts. They further observed that, while the intervention increased students' chances of successfully graduating, it had little impact on the student's academic performance, and were not sufficient in their own right to ensure strong academic achievement.

Concurrent to the works of Sinclair, et al; Peter Ewell of the National Center for Higher

Education Management Systems began developing the first student engagement survey in 1998,

the National Survey of Student Engagement (NSSE), under the auspices of the Pew Charitable

Trusts and the National Center for Educational Statistics (Kuh, 2009). His goal was to create a

survey that could measure empirically the extent to which students participate in positive

educational practices. This work was completed in 1999, and surveys went out to 140 colleges

nationwide (Axelson & Flick, 2011). Key findings from the survey include that grades are

positively linked to student engagement, with those students who report the highest amount of

time engaged in school preparation activities achieving higher grades. Also of note, senior

students were more likely to show stronger academic engagement than freshmen, and females

were more likely to report higher academic engagement than males (Kuh, 2009).

The concept of student engagement has continued to evolve over time. While early

studies defined engagement by observable behavior, such as participation, time on task (Astin,

1985) or academic achievement (Sinclair et al, 1998), later research would incorporate emotional

and affective aspects into their definitions (Finn 1989, Ewell 1999). Most recently, researchers

have included cognitive aspects of engagement, such as the student's investment in learning or

their perseverance, in their definitions of student engagement (Fredricks, Blumenfeld, & Paris,

2004).

Similarly, most measurements of student engagement were initially one dimensional

(Daly, Shin, Thakral, Selder & Vera, 2009), or at best two dimensional (Appleton, Christenson,

Kim & Reschly 2006; Connel & Wellborn 1991; Skinner, Furrer, March and & Kindermann

2008; cited from Wangl, Willet, & Eccles REL). The reason for the differences in measurements

was the different definitions of the construct of engagement among researchers (Wang, Willet, &

Eccles 2011). Fredricks, Blumenfeld, &Paris (2004), concerned with creating a unifying theory, posited three main constructs of engagement: behavioral engagement, cognitive engagement and emotional engagement.   These dimensions were later incorporated into Frontier's Student Engagement Survey (Frontier, 2007). Frontier used the multifaceted, multidimensional definition put forth by Fredricks, Blumenfeld, & Paris (2004), in which engagement is made up of emotional, behavioral and cognitive components that are not isolated processes but rather "dynamically interrelated within the individual" (p. 61). Frontier's study offers a measurement instrument that encompasses all three components put forth by Fredricks, Blumenfeld, and Paris, as well as comparison data of middle school students in the United States across various socio-economic backgrounds.   The Frontier Survey of Student Engagement includes a 35-question Likert scale survey for self-reporting of student perceptions. Frontier initially surveyed 552 middle school students in grades 6-8, in order to assess student perceptions of engagement by grade level, gender and ethnicity, along cognitive, behavioral and emotional dimensions. Using an analysis of variance (ANOVA), he observed that female students showed higher engagement levels than male students across all dimensions, and students who identified themselves as white showed higher engagement levels than African American students across all dimensions. Frontier also observed that students in grade 6 had the highest mean levels of engagement and students in grade 8 had the lowest.

Theoretical and practical work on student engagement continues to evolve, with new research being produced each year. This research study builds on the prior work of Frontier (2007). By measuring engagement levels of Burmese students in an American curriculum school, this study is the first to explore the relationship between ethnic culture and student engagement in an American curriculum school outside of the United States.   Using the same

instrument as Frontier, it was possible to build on existing research by comparing established data sets from the United States to data sets obtained by studying Burmese students in Myanmar.

National Curriculum Schools

Literature shows that national curriculums are defined as being specific to the culture in which they are created (Boomer, Lester, Onore, & Cooke, 1992; Peshkin, 1990), and are designed around understandings and pedagogy that is culturally specific (Giroux and Simon, 1989: Peshkin, 1990). There is ample literature to support the assertion that national curriculums are created by a dominant culture to indoctrinate or assimilate a subordinate culture.

Boomer, Lester, Onore, and Cooke (1992) postulated that society has expectations of, and influence over, what will be learned. Citing Professor Basil Bernstein (1978), Boomer, Lester, Onore, and Cooke (1992) asserted that educators take for granted the universality of curriculum, which is in fact culturally specific subject offerings (p. 5). The researchers posited that education is a self-perpetuating chain of subjections, based on the societal myths that are handed down year after year to teachers and deified in the universities. Boomer, Lester Onore, and Cooke (1992), state that curriculum is specific to the culture in which it is created, and is a means to ingrain that society's values into the students who partake in said curriculum. He further argues for a less subjective, and more universal, approach to education.

Peshkin (1990) wrote that the relationship between culture and curriculum is multifaceted, and that individuals and groups operate formally and informally to shape schools into becoming a fitting means to a valued end. At any given time, schools are acted upon by multiple societal agents, each competing to instill their own values and philosophies into the curriculum. These values and philosophies range from direct assimilation to community

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maintenance, and from empowering individuals or societies to become economically competitive

to maintaining a current economic status quo. This was supported by Carnoy (1989), who

argued that the dominant culture in the United States has created a self-sustaining structure in

which it uses education as a means to transfer values, ideology and skills to immigrant cultures

by: defining the curriculum, deciding who will be allowed to teach it through credentialing

educators, and determining what the methods of transmission of education will be. State and

political powers shape the American curriculum to ensure assimilation into the dominant

culture's values, and thereby prevent economic and social alienation of minority groups, even

asserting that it may offer economic and cultural incentives to conform. However, Carnoy

(1989) also notes that the curriculum is, in fact, also affected by the very minority cultures it

seeks to assimilate, and it is this cultural interaction which brings about democratic ideologies

and social change by which the culture itself is redefined (as cited in Giroux and Simon, 1989).

Conclusions

Student engagement is a relatively new research phenomenon with the potential for

greater explanation outside of the United States. Research suggests that factors that affect

students' engagement include: the school environment, teacher relations, self-esteem, grade

level, minority and minority language status, gender, and school administration. All of these

factors are further influenced by the actual culture in which students learn, and it seems likely

that there are reciprocal interactive relationships between culture, curriculum and student

engagement. Peshkin (1990) linked curriculum to cultural assimilation of a dominant culture on

a subordinate culture. This suggests it is plausible to assume that non-native English speakers

have a greater resistance to the American curriculum based on both their home culture and

language. Is this also the case for non native English speakers in American curriculum schools

abroad, or do other mitigating factors, such as socio-economic status and the specific culture which these students come from, override these concerns? By studying the engagement of the Burmese students at Yangon Academy, and then comparing this engagement to their American counterparts, greater understanding was gained of the engagement of foreign students living abroad but attending an American curriculum school.

Chapter 3

Research Methodology

Introduction and Purpose

Most of the current research on student engagement is focused on how students engage in their home countries' national curriculum. However, there is a lack of research into how non-American students engage in American curriculum in schools abroad. The purpose of this study was to examine levels of student engagement by Burmese middle school students in an American curriculum school in Myanmar, across the dimensions of emotional, cognitive, and behavioral engagement, while also examining the factors of grade level and gender. I examined the levels of student engagement through a mixed methods study using a triangulation design as described by Creswell and Plano Clark (2006). Using the same criteria for statistical significance ($p >$ .05) as Frontier (2007), I postulated that students from Myanmar would show statistically significant differences in levels of student engagement when compared to their American counterparts across the aforementioned dimensions.

Specific Purposes

The specific purposes of this study were to: 1.) Establish levels of student engagement by grade level and gender of Burmese middle school students in an American curriculum school in a non-U.S. cultural environment; 2.) Establish whether there are differences in engagement between Burmese middle school students in an American curriculum school in Myanmar and American middle school students in American curriculum schools in the United States; 3.) Find factors that may explain differing levels of student engagement in the Burmese students

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attending an American curriculum school in Myanmar and the American students attending American curriculum schools in the United States.

Research Questions

1. What levels of school engagement do Burmese students at Yangon Academy demonstrate? Are there differences by grade level or gender?

2. Do Burmese middle school students at Yangon Academy, show different levels of student engagement from American students when compared by grade level and/or gender?

3. What factors do the Burmese middle school students at Yangon Academy identify as increasing their engagement with their school?

4. What factors do school leaders (administration and teachers) at Yangon Academy perceive as affecting the engagement of their middle school students?

Population

The participants in my study were middle school students attending Yangon Academy in Myanmar, a Burmese international school with an American curriculum taught by American core subject teachers and led by an American administrator. In addition, the quantitative data collected from the Burmese students was compared with existing data from a United States American curriculum school in the Midwest.

Data was collected from 57 middle school students at Yangon Academy in grades 6 through 8. These students shared the characteristics of holding Burmese citizenship, living in Myanmar, and attending the same middle school. Students who have attended this school since

inception will have had English classes each year, starting with kindergarten, and been exposed to an American curriculum each year of their education.

Yangon Academy was chosen as a site for data collection due to its relative isolation from U.S. culture. This isolation from the United States is useful because, as Betancourt and Lopez (1993) noted, when ethnic groups interact with one another, culture may be transferred. Since this interaction can be either person to person or through the media, it is important to find a research sample of students with little or no exposure to American culture outside of the school study site itself, in order to see how well students without other tie-ins to an American culture engage in an American curriculum. Myanmar was ruled by an authoritarian government since 1968. In April of 2012, Myanmar held its first democratic elections in decades and, in recent months, many countries, including the United States, have taken steps to normalize relations with Myanmar. However, it is important to remember that for most of Myanmar's recent history, its political system was controlled by the Burmese military and, during that time, the government restricted access to foreign media and the internet, thus limiting its citizens' exposure to American media culture. As of 2009, only 110,000 Burmese citizens had access to the internet, while the population sits in excess of 50,000,000   Burmese is the national language and is used in all local media (CIA World Fact Book, 2012). Furthermore, Yangon Academy has no American students attending the middle school at this time. As such, the Burmese students at this school site will have had very little opportunity for absorbing U.S. culture outside of their school. The choice of a research population with such extreme isolation from U.S. culture is supported by Berry, Portinga, Segall and Dasen (2002,) who note that the purpose of such cross cultural research is to compare and contrast the effect that culture has on a specific behavior variable. In this case, the behavioral variable is student engagement and the proposed study has

the potential to quantify and explain how well students engage in a national curriculum designed for a culture other than their own, as well as provide guidance to school leaders worldwide on whether or not there is a need to make adaptations to their school's curriculum to increase the engagement of non-American students.

Method

This study is a mixed method study using a convergent design model (See Appendix A) based on the works of Creswell, Plano Clark et al, (2011). Creswell and Plano Clark (2006) note that mixed method research provides "more comprehensive evidence for studying a problem" and "answers questions that cannot be answered by either quantitative or qualitative approaches alone" (Creswell, Plano Clark, 2006, p. 9). In order to better understand the depth of student engagement of Burmese students in an American curriculum school, I collected quantitative and qualitative data through surveys, open ended questions, and interviews.

Design and Data Collection

Within the context of mixed method studies, I chose a convergent design model for this research (Creswell, Plano Clark et al, 2011). The convergent design model is used when a researcher wishes "to obtain different but complementary data on the same topic" (Morse, 1991, p. 122) in order to best understand a research problem. This design brings together different strengths of qualitative and quantitative methods and is used when researchers wish to triangulate qualitative and quantitative data with the purpose of corroboration and validation of their research (Creswell, Plano Clark et al, 2011). Both of these data sets were collected using the online survey platform SurveyMonkey. The survey and questions were given in English to closely mimic the original study, and also because the students from the Burmese school have

been schooled in English since kindergarten. I received assurances from the school's headmaster that the students are fluent in English. In this convergent design model there were two phases of data collection.

Phase 1:. Quantitative data was collected by replicating the student engagement survey (See Appendix B) portion of Frontier's (2007) student engagement study.   The instrument used to obtain this quantitative data about student engagement was developed and used by Frontier (2007) to determine levels of middle school engagement in American schools in the Midwest across grade level, gender and race.   Frontier developed a Likert scale questionnaire containing 35 questions to measure student levels of engagement across cognitive, emotional, and behavioral dimensions. Questions were developed, piloted, validated and formally administered over a time period of three years. The initial survey was created after extensive review of current research on student engagement. Over a two-year period, the survey was reviewed in committees by researchers, teachers, school administrators, an anthropologist, and the former head of research at an American university. Simultaneously, the survey was tested four times in small focus groups before its formal pilot administration. After each test, students, teachers and administrators were invited to give input into the survey to ensure that the questions were clear and accessible to the target population. A total of 648 middle school students took part in the pilot study. Results of the pilot study demonstrated a high level of reliability by two separate measures: a split-half coefficient as a Spearman-Brown Corrected Correlation and a Cronbach Coefficient Alpha analysis. The split-half coefficient Spearman-Brown Corrected Correlation is a measure that predicts the reliability of a test based on analyzing half of the test's matrix of data against the other half of the test's data.

The predicted reliability formula is: $\rho_{xx'}^* = \dfrac{N\rho_{xx'}}{1 + (N-1)\rho_{xx'}}$

N is equal to the number of combined tests. P*xx'* is the reliability of the current test. P*xx* is a prediction of the reliability of the new test created by replicating the current test N times.

To obtain the split-half coefficient, the survey tool was divided to include equal amounts of questions designed to address emotional behavioral and cognitive engagement. When the first half of the survey items: 1, 3, 4, 6, 8, 10, 12, 15, 16, 18, 20, 23, 25, 26, 29, 31, 32, and 33, were analyzed and compared to the remaining survey items, the Spearman-Brown Corrected Correlation Coefficient was .969. In order to obtain a Cronbach Alpha score, composite scores for each subsection of engagement (cognitive, behavioral, and emotional) were generated and used as continuous variables against which the strength of individual scores could be compared and contrasted. Here the variance of the observed total test scores is analyzed with the variance of each component of the test in order to compute a reliability factor. The formula for computing Cronbach's Alpha is

$$\alpha = \frac{K}{K-1}\left(1 - \frac{\sum_{i=1}^{K}\sigma_{Y_i}^2}{\sigma_X^2}\right)$$

K is equal to the number of components and σ_X^2 is equal to the variance of the total test scores. $\sigma_{Y_i}^2$ is equal to the variance of the component i for the sample of students. The Cronbach Alpha score for the entire survey showed a reliability of .952. A Cronbach score of greater than .7 represents an acceptable level of reliability (Field, 2005).

Qualitative data was also collected from the Burmese students by asking three open-ended questions (See Appendix C) for greater depth and understanding (Creswell, Plano Clark,

2006). Additional qualitative data was obtained by interviewing the students' American teachers and the school's administrator concurrently (See Appendix D). The qualitative data question sets for both students and teachers are aligned to the behavioral, cognitive, and emotional engagement components of the survey (See Appendixes F, G) in order to triangulate, validate, and further expound upon findings from the student engagement survey.

Phase 2: The quantitative data obtained from the Burmese students was compared with a prior data set obtained from Frontier's (2007) student engagement study with American students using a three-way factorial analysis of variance (ANOVA). In this kind of factorial analysis, engagement variables with multiple factors are compared. In this study, the sets of data included four comparisons between American and Burmese students. The four comparisons were the students' engagement levels regarding their emotional, cognitive, behavioral and composite engagement along factors of ethnicity, gender and grade level (See Appendix E). The ANOVA is used to determine which sub-groups have higher engagements and which groups have lower engagements.

Finally, literature based on factors that affect overall student engagement and factors that affect minority and language minority engagement in national curriculum schools were used to interpret the final results.

Quantitative Data Analysis

Quantitative data analysis was necessary for both phases of the study. As previously noted, the quantitative data was gathered from Burmese middle school students in an American curriculum school in Myanmar by replicating a student engagement survey originally conducted with middle school students in the United States (Frontier, 2006). In this survey, students are

asked to score their perceptions of their engagement across an instrument that measures three distinct subsections of engagement--cognitive, behavioral, and emotional--using a Likert scale. In phase one, each subsection was used to generate a composite score for student engagement across that subsection by gender and grade level. In phase two, student data was analyzed in a 3-way factorial ANOVA to compare levels of engagement by Burmese students at Yangon Academy with existing data showing levels of engagement by American students in a private school in the United States, across nationality, gender, and grade level (See Appendix E).

Qualitative Data Analysis

All qualitative data was analyzed in phase one. The qualitative data--which was gathered from the Burmese students, their American teachers and the school's American administrator at the same time as the quantitative data--was analyzed in order to triangulate, validate and shed greater light on student responses. This analysis was accomplished by reading the responses, pulling out themes, re-reading it and coding by the themes that had been recognized, looking for subthemes, and grouping quotations. This coding was done by hand using pens. The study looked for themes in the data that related to both positive and negative student engagement along the emotional, cognitive, and behavioral dimensions. Codes based on the open ended questions included:

PE: Positive emotional engagement

NE: Negative emotional engagement

NUE: Neutral emotional engagement

PC: Positive cognitive engagement

NC: Negative cognitive engagement

NUC: Neutral cognitive engagement

PB: Positive behavioral engagement

NB: Negative behavioral engagement

NUB: Neutral behavioral engagement

PO: Positive overall engagement

NO: Negative overall engagement

NUO: Neutral overall engagement

This analysis of qualitative data is consistent with Patton (2002), who advocates reading, identifying themes, coding, categorizing and classifying data for interpretation of qualitative results.   Credibility was reinforced by cross checking at the identification of themes and the coding section, and crosschecking any conclusions drawn from the analysis. In order to accomplish this and minimize researcher bias, I worked in collaboration with two assistants in the coding of open-ended questions (Maxwell, 2005).   Each assistant was paid 200 dollars for their services. The first assistant is in her mid 40's and has taught for over 15 years in the United States and abroad. She holds a Masters of Arts degree in Education obtained from the University of Wisconsin, and co-wrote current national curriculum that has been adopted into the United States American Education Reaches Out (AERO) standards. To establish inter-coder reliability, the first assistant and myself evaluated all responses to open ended questions separately, and then compared and contrasted our coding results.   The second assistant is in her mid 50's and has taught for over 20 years both in the United States and abroad. She holds a Masters of

Science in Library and Media Studies from Berkley, California.   The second assistant reviewed

the codes of all responses and then submitted the results to the researcher and the first assistant to

help clarify discrepancies.   The second assistant analyzed codes that differed between myself

and the first assistant in order to triangulate (Patton, 2002). The first assistant and the researcher

reviewed all discrepancies and adjusted coding practices according to the findings of the second

assistant. The inter-coder reliability agreement criterion was set at 80%, which was met on all

coded responses. In order to further ensure validity and as a final measure of credibility,

conclusions drawn and observed by myself were reported to the interviewed teachers and school

administrator, as a source of verification by member check.

Triangulation and Interpretation

At the end of phase one, the quantitative and qualitative data was combined, with the

qualitative data being used to validate, corroborate and expand upon the quantitative data. This

is consistent with Creswell and Plano Clark (2011), who describe this combination of data in the

convergent design model as merging data sets. Following Creswell and Plano Clark's (2011)

methods, the data from this study were merged as follows: quantitative results are presented in a

text description of the findings, and qualitative data is used to corroborate and elaborate on these

results. Specific quotes are included to illustrate ideas and identified themes and are used to

compare and contrast quantitative findings.

 Timeline

The timeline for this study included the following aspects: Doctoral Dissertation

Committee proposal, Internal Review Board (IRB) permission, surveys, data collection and

interpretation of data. The formal proposal for this dissertation research was proposed and

accepted by the dissertation committee in March, 2013. IRB permission was sought immediately

afterward and granted in May of 2013. Permission slips (see Appendix H) were sent home to the

parents of the Burmese students on May 21, along with an introduction letter from myself and

the school's headmaster explaining the research and assuring students and parents of the

confidentiality of their responses.   Formal administration of the survey took place for all middle

school student groups between June 1 and June 10th in Yangon Academy's computer lab (see

Appendixes B, C).   Interviews with the school's teachers and administrator took place between

June 1 and August 31st (See Appendix D). Data was analyzed between September and

December of 2013, with the final dissertation being presented to the committee in January of

2014.

Chapter 4

Sample Description

The study site and sample has been described in Chapter 3. Of the 60 students that attend the study site at the middle school in Myanmar, 57 students took the survey and 53 students completed it. This sample included 26 males and 27 females. The distribution of these students by gender and grade level can be seen in Table 1. The number of years that students have attended the American curriculum school can be seen in Table 2. In a factorial univariate analysis (ANOVA,) student overall engagement responses were compared based on the number of years they had attended the study site school: 0-2 years, 3-5 years, 6 years or more. There was not a statistically significant variance in the students responses, p (.074) > .05, as reported in Table 4.

Table 1.

Burmese Student Distribution by Gender and Grade Level

Gender		Frequency	Percent	Valid Percent	Cum. Percent
Male	6	7	25.0	25.0	25.0
	7	12	42.9	42.9	67.9
	8	9	32.1	32.1	100.0
	Total	28	100.0	100.0	
Female	6	11	37.9	37.9	37.9
	7	12	41.4	41.4	79.3
	8	6	20.7	20.7	100.0
	T otal	29	100.0	100.0	

Table 2.

Years of Attendance at American Curriculum School in Myanmar

		Frequency	Percent	Valid Percent	Cum. Percentt
Valid	0-2 years	11	19.3	19.3	19.3
	3-5 years	24	42.1	42.1	61.4
	6 years or more	22	38.6	38.6	100.0
	Total	57	100.0	100.0	

Reliability

The researcher acknowledges that the sample size from the Burmese school is limited. Therefore, three methods were used to ensure greater reliability. A statistical analysis of samples of the Burmese population was conducted using Levene's Test of Equality of Variance, as well as a 2 Tailed T-test.   Finally, triangulation of data was conducted by analyzing and presenting the qualitative data from interviews with the four core subject teachers as well as the school administrator. This qualitative data has been cross checked by two assistant researchers and also reported to the interview participants as a source of verification by member check.

Statistical analysis was accomplished by placing a randomly selected sample of students into two different sampling groups. These groups were then compared using Levene's Test of Equality of Variance, as well as a 2 Tailed T-test.   The result are show below in Table 3 and 4. Since $p > .05$ for Leven's Test of Equality of Variances (.890), as well as the 2 Tailed T-test (.740), equal variances of the responses of the entire population is assumed.

Table 3.

Random Sample Group Comparisons of Numbers, Mean, and Standard Deviation for Overall Engagement.

Samples	N	Mean	Standard Deviation	Standard Error Mean
A	25	4.4740	.66787	.13357
B	26	4.5392	.72435	.14206

Table 4.

Independent Samples Test

		Levene's Test for Equality of Variances		T-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
OVERALLENG	Equal variances assumed	.019	.890	-.334	49	.740	-.06515	.19531		-.45764	.32733
	Equal variances not assumed			-.334	48.917	.740	-.06515	.19499		-.45702	.32672

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Research Results

Quantitative research questions:

1.   What levels of school engagement do Burmese students at Yangon Academy demonstrate? Are there differences by grade level or gender?

Table 5 shows descriptive statistics for all Burmese students for each individual engagement question, as well as the group mean score for cognitive, behavioral, emotional and overall engagement. These results show the relative strength of each individual item, as well as the complete data set before disaggregated comparisons are presented.

Table 5.

Descriptive Statistics of All Questions Answered by Burmese Students

	N	Mean	Std. Deviation
My classes are interesting to me. C	53	4.6226	.85993
In my classes I need to think creatively. C	52	4.9038	.79852
I enjoy my schoolwork. C	53	4.3019	1.10218
What I learn in my classes helps me in my day-to-day life. C	53	4.4528	1.02968
I think what I learn in my classes will help me be successful in life. C	53	5.0189	.84331
Sometimes I like doing my school work so much that time passes by very quickly. C	53	4.0755	1.45244
If there were no grades given in this school, I'd still do my schoolwork. C	50	4.2800	1.14357
The books I read for school make sense to me. C	53	4.9245	.97762
My teachers' lessons make sense to me. C	53	4.9623	.93977
I think it is important to learn what my teachers are teaching. C	53	4.8491	.92811
My teachers work with me to make sure that I am learning. B	53	4.7925	.96792
In my classes I have the opportunity to solve interesting problems with others. B	53	4.62	1.060
If I work hard. I can do well in my classes. B	52	5.3654	.90811
In my classes I am allowed to make choice about projects I do or what I will learn. B	51	4.1569	1.13794
My teachers challenge me to do my best work in school. B	53	4.7547	1.09027
My assignments are completed and turned-in on time. B	52	4.8654	.99072
My teachers would say that I participate in class. B	53	4.9434	.86414
I like talking to my teachers about what I'm learning about in school. B	53	4.2642	1.04054
The rules in this school are fair. B	53	4.4528	1.16958

When I'm in school, I follow this school's rules. B	51	4.6275	1.03848
I think it is important to work hard in school. B	53	5.0566	.92850
If I don't understand something I am supposed to learn, I ask my teacher for help. B	53	4.8491	1.06331
I know an adult in this school who I could talk to if I had a personal problem. E	53	3.6604	1.56824
My teaches are interested in my thoughts and opinions. E	53	4.3962	1.04402
My teachers are interested in me as a student and as a person. E	52	4.4808	.82819
I trust at least one adult in this school. E	53	4.3396	1.54351
My classmates care about me. E	52	4.6346	1.26845
I am proud to go to this middle school. E	53	4.3585	1.33149
The adults in this school are proud of me. E	53	4.2075	1.11560
The adults in this school trust me to make good decisions. E	53	4.5849	.94937
I trust the adults in this school to make decisions that are in my best interest. E	53	4.3019	1.03003
I am safe from physical harm when I am at school. E	53	4.4717	1.11982
It is safe for me to express my ideas and opinins when I am at school. E	53	4.4717	1.15365
MEANCOG	53	4.6398	.65936
MEANEMOT	53	4.3537	.75798
MEANBEHA	53	4.7340	.68638
Overall Engagement Mean (equally weighted across all three dimensions)	53	4.58	

Table 6 shows student engagement by gender across dimensions of cognitive, emotional, behavioral and overall engagement. It can be observed that, as a composite group, female students reported slightly higher mean levels of engagement across all engagement dimensions in comparison to their male counterparts. Qualitative data analysis of interviews with four faculty members and the administrator regarding gender related engagement levels were split, with two faculty members reporting that females had higher engagement, while three reported that engagement was approximately equal across the gender. As one faculty member reported, "Males are much more verbal in the classroom;" however, "in many ways the girls are just as engaged [as the boys], they are just not going to be as forward about it."

Table 6.

Descriptive Statistics By Gender For Burmese Students

Gender	Construct	N	Mean	Std. Deviation
Male	MEANCOG	26	4.5829	.60110
	MEANEMOT	26	4.3434	.77146
	MEANBEHA	26	4.6457	.72509
	OVERALL ENG	26	4.5240	
	Valid N (listwise)	26		
Female	MEANCOG	27	4.6947	.71814
	MEANEMOT	27	4.3636	.75935
	MEANBEHA	27	4.8190	.64914
	OVERALL ENG	27	4.6258	
	Valid N (listwise)	27		

Table 7 shows student engagement by grade level across dimensions of cognitive, emotional, behavioral and overall engagement. It can be observed that engagement levels are consistently lower across ascending grade levels in each engagement dimension.   This is consistent with the interviews of the faculty at the American curriculum school in Myanmar, where three out of five faculty reported higher engagement in grade 6 than 7, and four out of five faculty reported higher engagement in grade 7 than 8. A consensus theme that was reported by all five faculty was that engagement levels dropped off as students experienced adolescence or, as one faculty member stated, "if the hormones are kicking in, they aren't going to interact with any curriculum."

Table 7.

Descriptive Statistics By Grade Level For Burmese Students

What is your current grade level?		MEANCOG	MEANEMOT	MEANBEHA	OVERALLENG
6	Mean	4.8222	4.4040	4.9070	
	N	18	18	18	18
	Std. Deviation	.34555	.41039	.50629	.33527
7	Mean	4.6505	4.3686	4.7080	4.5757
	N	22	22	22	22
	Std. Deviation	.80050	.95027	.73456	.78982
8	Mean	4.3692	4.2587	4.5385	4.3888
	N	13	13	13	13
	Std. Deviation	.68116	.81044	.80408	.73650
Total	Mean	4.6398	4.3537	4.7340	4.5758
	N	53	53	53	53
	Std. Deviation	.65936	.75798	.68638	.65493

2.   Do Burmese middle school students at Yangon Academy show different levels of student engagement from American students when compared by grade level and/or gender?

The Burmese middle school students were compared to American middle school students from a private school in an affluent part of Milwaukee, Wisconsin, first by mean levels of engagement and then by factorial ANOVA. Since the total number of students from Myanmar who completed the survey is 53 and the total number of students who completed the survey from the private school in the United States is 549, the researcher acknowledges that the comparison by ANOVA is underpowered. Table 8 shows the comparison of mean levels of engagement for cognitive, emotional, behavioral and overall engagement dimensions between the Burmese middle school students at a private American curriculum school and the American middle school

students in a private middle school in the United States. Table 9 shows a breakdown by ethnicity and gender, Table 10 shows a breakdown by ethnicity, gender and grade level.

Table 8.

Comparisons of Means by Ethnicity Report

	Ethnicity	MEANCOG	MEANBEHA	MEANEMOT	OVERALLENG
Burmese	Mean	4.6398	4.7340	4.3537	4.5758
	N	53	53	53	53
	Std. Deviation	.65936	.68638	.75798	.65493
American	Mean	4.5205	4.8440	4.8395	4.7347
	N	549	549	549	549
	Std. Deviation	.73270	.54212	.68588	.59499

It can be observed that mean levels of engagement reported by the Burmese students was higher in the cognitive engagement dimension, but lower in the behavioral, emotional, and overall engagement dimension. However, the only statistically significant difference, $p < .05$, was reflected in the emotional engagement dimension.

Table 9

Comparison of Means by Ethnicity and Gender

Ethnicity	What is your gender?		MEANCOG	MEANBEHA	MEANEMOT	OVERALLENG
Burmese	Male	Mean	4.5829	4.6457	4.3434	4.5240
		N	26	26	26	26
		Std. Deviation	.60110	.72509	.77146	.64655
	Female	Mean	4.6947	4.8190	4.3636	4.6258
		N	27	27	27	27
		Std. Deviation	.71814	.64914	.75935	.67129
American	Male	Mean	4.4231	4.7801	4.7438	4.6490
		N	293	293	293	293
		Std. Deviation	.74623	.52423	.68985	.58865
	Female	Mean	4.6320	4.9173	4.9490	4.8328
		N	256	256	256	256
		Std. Deviation	.70190	.55390	.66592	.58812

It can be observed that all mean levels of engagement reported by both the male and female Burmese students was higher in the cognitive engagement dimension, but lower in the behavioral, emotional, and overall engagement dimension. Again, the only statistically significant difference, $p < .05$, was reflected in the emotional engagement dimension.

Table 10.

Comparison of Burmese and American Students by Grade Level and Gender

Ethnicity	What is your gender?	What is your current grade level?		MEANCOG	MEANBEHA	MEANEMOT	OVERALL ENG
Burmese	Male	6	Mean	4.7571	4.9307	4.3896	4.6925
			N	7	7	7	7
			Std. Deviation	.26954	.36629	.44448	.22741
		7	Mean	4.6963	4.6616	4.4182	4.5920
			N	12	12	12	12
			Std. Deviation	.49458	.64260	.83963	.60494
		8	Mean	4.2143	4.3333	4.1688	4.2388
			N	7	7	7	7
			Std. Deviation	.87451	1.04416	.96983	.93909
		Total	Mean	4.5829	4.6457	4.3434	4.5240
			N	26	26	26	26
			Std. Deviation	.60110	.72509	.77146	.64655
	Female	6	Mean	4.8636	4.8919	4.4132	4.7229
			N	11	11	11	11
			Std. Deviation	.39312	.59550	.40932	.39958
		7	Mean	4.5956	4.7636	4.3091	4.5561
			N	10	10	10	10
			Std. Deviation	1.09091	.86487	1.11274	1.00375
		8	Mean	4.5500	4.7778	4.3636	4.5638
			N	6	6	6	6
			Std. Deviation	.35071	.34021	.65049	.41872
		Total	Mean	4.6947	4.8190	4.3636	4.6258
			N	27	27	27	27
			Std. Deviation	.71814	.64914	.75935	.67129
American	.	8	Mean	4.0500	4.7500	4.6818	4.4939
			N	2	2	2	2
			Std. Deviation	1.48492	.82496	.57854	.96281
		Total	Mean	4.0500	4.7500	4.6818	4.4939
			N	2	2	2	2
			Std. Deviation	1.48492	.82496	.57854	.96281

Male	6	Mean	4.6678	4.8939	4.8395	4.8004
		N	111	111	111	111
		Std. Deviation	.67765	.50569	.64927	.55401
	7	Mean	4.4838	4.8521	4.8044	4.7135
		N	97	97	97	97
		Std. Deviation	.73239	.52541	.61501	.57147
	8	Mean	4.0343	4.5492	4.5497	4.3777
		N	85	85	85	85
		Std. Deviation	.69646	.47738	.78456	.56556
	Total	Mean	4.4231	4.7801	4.7438	4.6490
		N	293	293	293	293
		Std. Deviation	.74623	.52423	.68985	.58865
Female	6	Mean	4.9715	5.1752	5.1847	5.1105
		N	95	95	95	95
		Std. Deviation	.50003	.44107	.53173	.44015
	7	Mean	4.5573	4.8331	4.8419	4.7441
		N	84	84	84	84
		Std. Deviation	.75381	.58273	.72439	.64530
	8	Mean	4.2948	4.6909	4.7752	4.5870
		N	77	77	77	77
		Std. Deviation	.67658	.52445	.67261	.54760
	Total	Mean	4.6320	4.9173	4.9490	4.8328
		N	256	256	256	256
		Std. Deviation	.70190	.55390	.66592	.58812

Cognitive, behavioral, emotional and overall dimensions of student engagement were compared by factorial ANOVA between Burmese and American students, in order to see if there were significant differences ($p < .05$) between the groups by gender or grade level. Since the number of Burmese students who completed all questions on the survey was 53, this ANOVA was underpowered. The researcher acknowledges this. The results were as follows: while Burmese students reported a slightly higher mean level of cognitive engagement, these levels were not found to differ significantly by ethnicity, grade level, or gender. Table 11 shows the

ANOVA for test of between subject effects. The significance value for ethnicity (.267),

ethnicity*grade (.670), ethnicity * gender (.243), and ethnicity * grade * gender (.847) are all p >

.05; therefore the null hypothesis that states cognitive engagement levels will differ significantly

by ethnicity, gender or grade level cannot be rejected.

Table 11.

Tests of Between Subjects Effects, Dependent Variable: Mean Cognitive Engagement (MEANCOG)

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	48.695[a]	11	4.427	9.717	.000	.153
Intercept	3770.662	1	3770.662	8276.597	.000	.933
Ethnicity	.562	1	.562	1.233	.267	.002
Grade	7.989	2	3.995	8.768	.000	.029
Gender	1.209	1	1.209	2.653	.104	.004
Ethnicity * Grade	.366	2	.183	.401	.670	.001
Ethnicity * Gender	.111	1	.111	.243	.622	.000
Grade * Gender	.825	2	.413	.906	.405	.003
Ethnicity * Grade * Gender	.152	2	.076	.167	.847	.001
Error	268.793	590	.456			
Total	12676.747	602				
Corrected Total	317.488	601				

a. R Squared = .153 (Adjusted R Squared = .138)

While Burmese students reported slightly lower mean levels of behavioral engagement,

these levels were not found to differ significantly by ethnicity, grade level, or gender. Table 12

shows the ANOVA for test of between subject effects. The significance value for ethnicity

(.176), ethnicity*grade (.939), ethnicity * gender (.825) and ethnicity * grade * gender (.262) are

all p > .05; The null hypothesis that states behavioral engagement levels will differ significantly

by ethnicity, gender or grade level cannot be rejected.

Table 12.

Tests of Between-Subjects Effects Dependent Variable: MEANBEHA

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	22.243[a]	11	2.022	7.279	.000	.119
Intercept	4147.397	1	4147.397	14930.116	.000	.962
Ethnicity	.509	1	.509	1.832	.176	.003
Grade	4.078	2	2.039	7.340	.001	.024
Gender	1.048	1	1.048	3.772	.053	.006
Ethnicity * Grade	.035	2	.018	.063	.939	.000
Ethnicity * Gender	.014	1	.014	.049	.825	.000
Ethn.* Grade * Gender	.746	2	.373	1.342	.262	.005
Error	163.895	590	.278			
Total	14255.439	602				
Corrected Total	186.137	601				

a. R Squared = .119 (Adjusted R Squared = .103)

Burmese students reported lower mean levels of emotional engagement. These levels were not found to differ significantly by ethnicity*grade (.679), or gender*grade (.407). The null hypothesis that states that emotional engagement will vary significantly by gender or grade level cannot be rejected. However, response levels of emotional engagement did differ significantly by ethnicity (.000). Table 13 shows the ANOVA for test of between subject effects. As shown in Figure 1, Burmese students' emotional engagement was significantly lower than the American students.   The null hypothesis that states overall emotional engagement levels will not differ significantly by ethnicity can be rejected.

Table 13.

Tests of Between-Subjects Effects Dependent Variable: MEANEMOT

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	30.661[a]	11	2.787	6.127	.000	.103
Intercept	3822.082	1	3822.082	8401.216	.000	.934
Ethnicity	10.845	1	10.845	23.839	.000	.039
Grade	1.604	2	.802	1.762	.173	.006
Gender	.649	1	.649	1.426	.233	.002
Ethnicity * Grade	.352	2	.176	.387	.679	.001
Ethnicity * Gender	.314	1	.314	.689	.407	.001
Ethnicity * Grade * Gender	.151	2	.076	.166	.847	.001
Error	268.417	590	.455			
Total	14150.374	602				
Corrected Total	299.078	601				

a. R Squared = .103 (Adjusted R Squared = .086)

Figure 1.
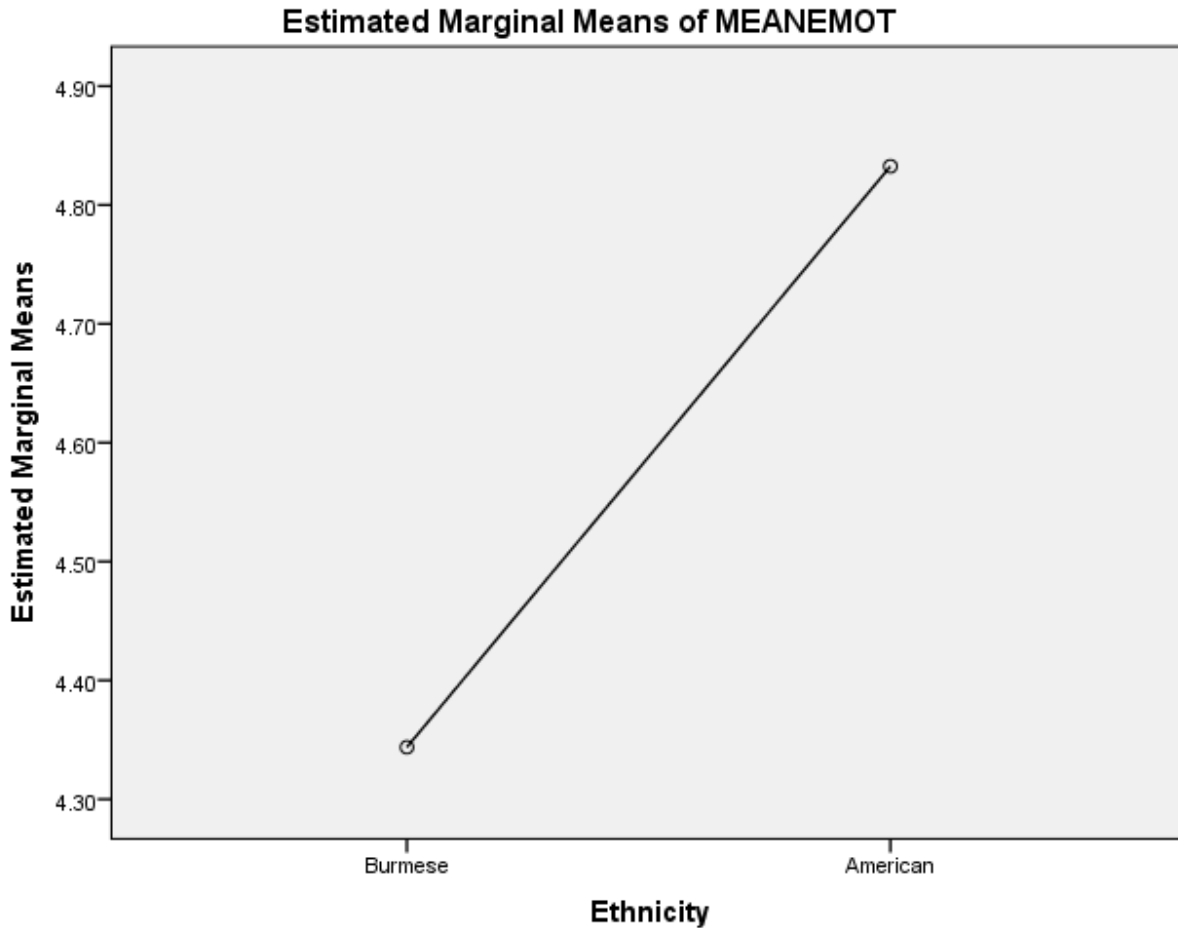
Overall engagement levels were not found to differ significantly by ethnicity, grade level, or gender as is shown in Table 14. The significance value for ethnicity (.055), ethnicity*grade (.738), ethnicity * gender (.647) and ethnicity * grade * gender (.655) are all p > .05; The null hypothesis that states engagement levels will differ significantly by ethnicity, gender or grade level cannot be rejected. However, it is interesting to note that the significance for ethnicity (.055) would fall under the range of significance if the significance value was set at p > .06. This suggests that this variable is the most likely to be effected by the small sample size, and could show significance in future studies.

Table 14.

Tests of Between-Subjects Effects, Dependent Variable: OVERALLENG

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	28.810ᵃ	11	2.619	8.188	.000	.132
Intercept	3911.627	1	3911.627	12229.558	.000	.954
Ethnicity	1.179	1	1.179	3.686	.055	.006
Grade	4.143	2	2.071	6.476	.002	.021
Gender	.953	1	.953	2.979	.085	.005
Ethnicity * Grade	.194	2	.097	.304	.738	.001
Ethnicity * Gender	.067	1	.067	.209	.647	.000
Ethnicity * Grade * Gender	.271	2	.136	.424	.655	.001
Error	188.712	590	.320			
Total	13633.170	602				
Corrected Total	217.521	601				

a. R Squared = .132 (Adjusted R Squared = .116)

Qualitative research questions:

1.   What factors do the Burmese middle school students at Yangon Academy identify as increasing their engagement with their school?

Students were asked to identify their favorite elements of school concerning their core American curriculum classes (Science, Social Studies, English, and Social Studies), with the presumption that they would identify those aspects that resulted in high engagement. Several recurrent themes were reported. Those elements that were identified by more than 10% of the students as their favorite elements of the school are reported here by number of responses, as well as percentile of the whole population. These factors included: American curriculum science classes, which included hands on labs (15 responses, 28%), American curriculum math classes (15 responses, 28%), American curriculum social studies classes, which included partner work and project work (18 responses, 34%), and American curriculum English classes, which included

plays and forensic activities (14 responses, 26%), as well as critical thinking activities in unspecified classes (14 responses, 26%), and partner and group work activities in unspecified classes (6 responses, 11%). Students were also asked to identify elements of the school that they would like to improve. Responses varied greatly but the following recurrent themes were cited by more than 10% of the students: more hands on science experiments (6 responses, 11%) and more partner/group work activities (6 responses, 11%).

2.   **What factors do school leaders (administration and teachers) at Yangon Academy perceive as affecting the engagement of their middle school students?**

Several factors were reported by the teachers/administrator as increasing student engagement in the Burmese school. These factors included: ESL teaching techniques (4 responses, 80%), group/partner work (4 responses, 80%), interactive learning experiences, such as- labs, experiments, and group theater (3 responses, 60%), and an understanding by the instructor of the cultural significance of the Buddhist religion (4 responses, 80%).

Chapter 5.

Discussion

The purpose of this study was to explore the levels of Burmese students' engagement in an American curriculum school in Myanmar, and compare these with established levels of engagement for U.S. students in a private U.S. school. I wished to explore differences in engagement of non-American students in an American curriculum school abroad by ethnicity, gender and grade level. I also wanted to know what factors students from cultures other than the U.S. identify as increasing or decreasing their engagement while attending an American curriculum school in Myanmar. Finally, I wished to study the perceptions of the teachers and administrator at that school as to what factors may increase or decrease student engagement and what measures the teachers and administrator may take to increase engagement of a particular group of students.

The related research questions were:

1. What levels of school engagement do Burmese students at Yangon Academy demonstrate? Are there differences by grade level or gender?

2. Do Burmese middle school students in an American curriculum school show different levels of student engagement from American students when compared by grade level and/or gender?

3. What factors do the Burmese middle school students at Yangon Academy identify as increasing or decreasing their engagement with their school?

4. What factors do school leaders (administration and teachers) of Yangon Academy perceive as affecting the engagement of their middle school students?

Analysis of the data showed that the Burmese students engagement paralleled their American counterparts in cognitive, behavioral and overall engagement, but that there was a significant difference in emotional engagement by ethnicity between the two groups. Based on the results of this study, and keeping with Frontier's framework that student engagement is a multifaceted phenomenon with numerous factors affecting student engagement; I have identified three themes for summarizing and interpreting the results. These themes are: 1) the significance of the parallels in student engagement between the Burmese students and the U.S. students, 2) the significance of the lower emotional engagement of the Burmese students, and 3) factors that affected the Burmese students engagement.

This final chapter will: 1) explore the three themes identified and offer implications for school leaders, 2) acknowledge the limitations and suggest the contributions of this research, 3) provide suggestions for further research, 4) provide a conclusion.

Discussion of Findings/Conclusions.

Significance of parallels in student engagement between Burmese and U.S. students.

Consistent statistical parallels were found between the Burmese students' engagement and the U.S. students' engagement. As reported in Chapter four, the results section of this study, gender, grade level, and ethnic differences in engagement for the Burmese students did not differ significantly ($p > .05$) from their American counterparts in either cognitive, behavioral or overall engagement. Furthermore the Burmese students engagement levels followed the same pattern as the American students; with females reporting higher engagement levels in every

dimension in comparison to male students, and each successive grade level, between grades six, seven and eight reporting lower engagement levels than the previous grade. That two student groups from opposite sides of the world should report remarkably similar engagement levels in American curriculum schools with similar engagement patterns is worth further exploration and explanation. It also has practical implications which will be elaborated on later in this chapter. Gender , grade level, and ethnicity parallels are each be presented in turn, followed by separate interpretations and implications for each.

The Burmese female students reported higher levels of engagement across all dimensions than their male counterparts, as shown in Figures 2 and 3.   This is consistent with U.S. female students reporting higher levels of engagement than U.S. male students, as established during Frontier's (2007) original study. Frontier's study found that female students showed consistently higher engagement across all engagement dimension (cognitive, behavioral, emotional, and overall engagement). This can be viewed by graphing a visual comparison, which shows similar (though not equal) slopes between female and male students' engagement for Burmese and American students in each of the aforementioned engagement dimensions as is illustrated by Figures 4, 5 and 6.

Figure 2. Mean Engagement Level Comparison Between Males and Females
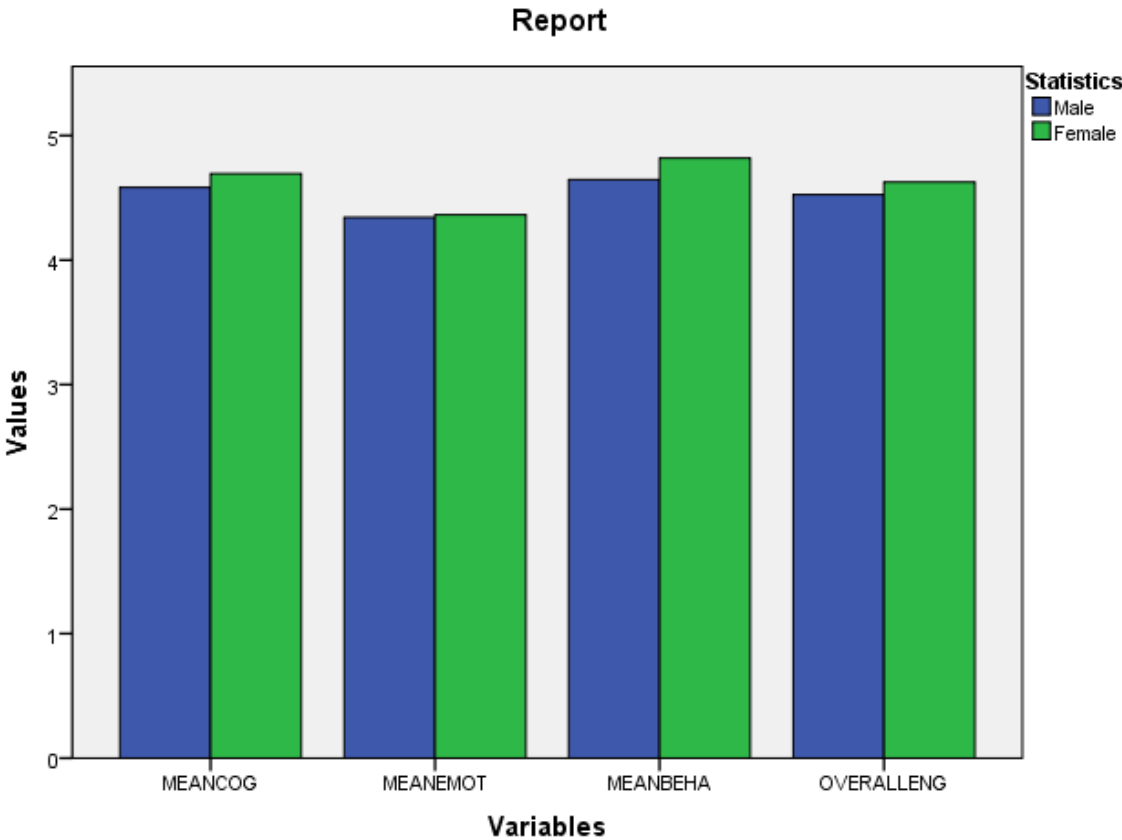
Figure 3. Mean Over All Engagement Comparison Between Males and Females

Estimated Marginal Means of OVERALLENG
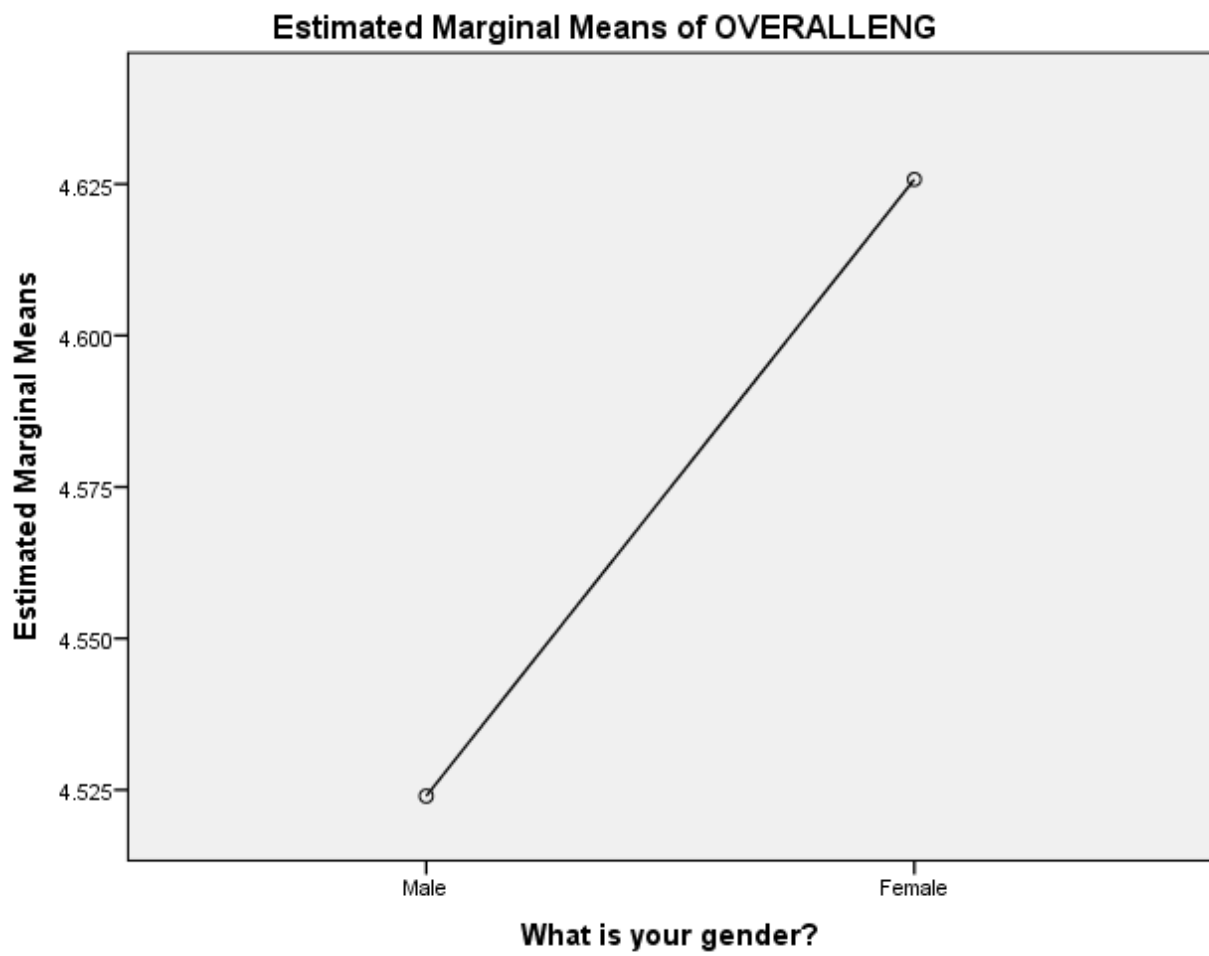
Figure 4. Mean Over All Engagement Comparison Between Burmese and American Males and

Females

Estimated Marginal Means of OVERALLENG
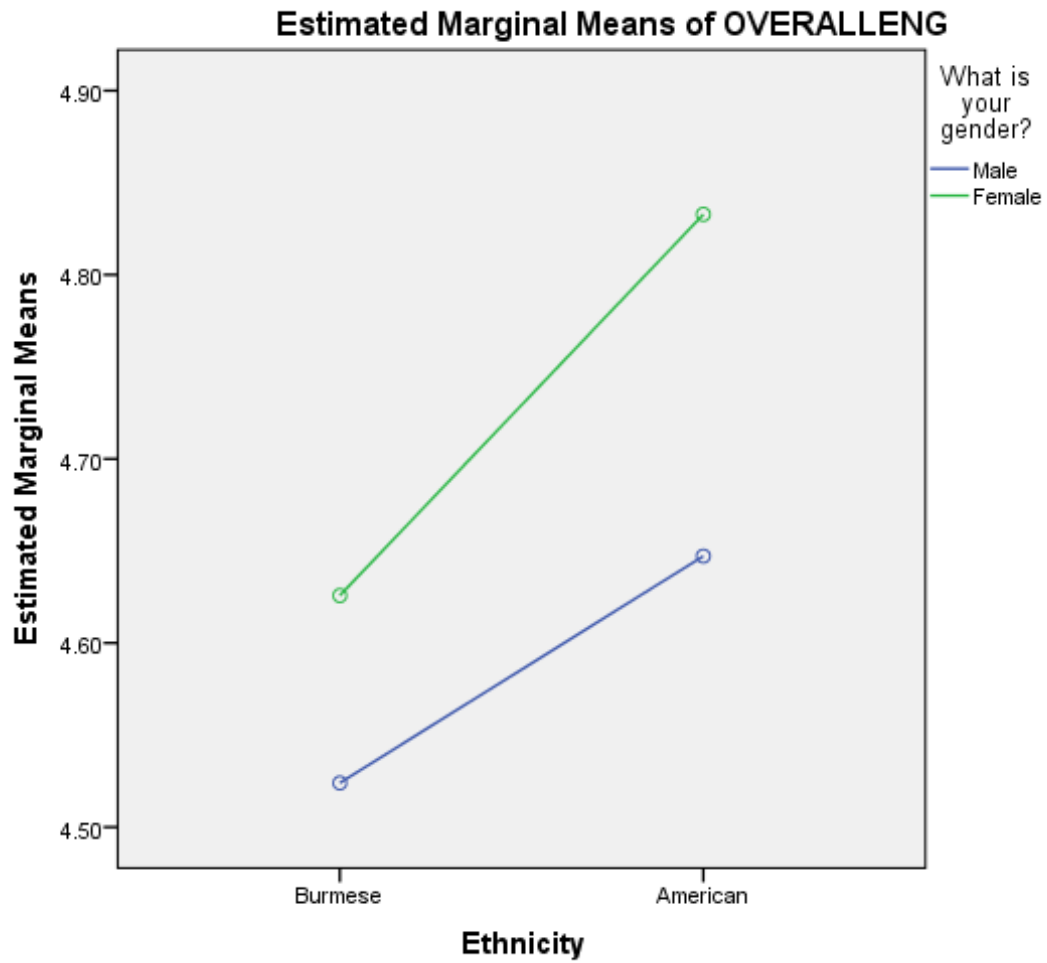
Figure 5. Mean Behavioral Engagement Comparison Between Burmese and American Males
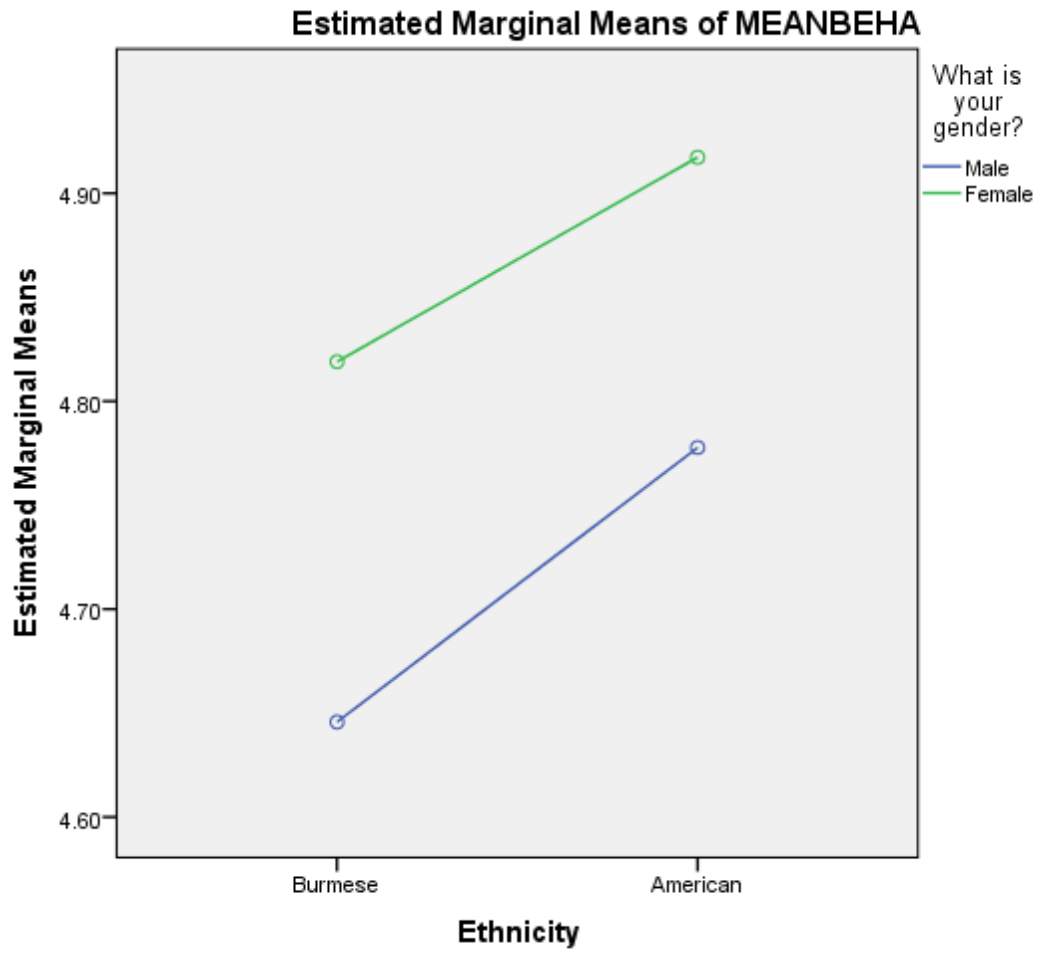
and Females

Figure 6. Mean Cognitive Engagement Comparison Between Males and Females
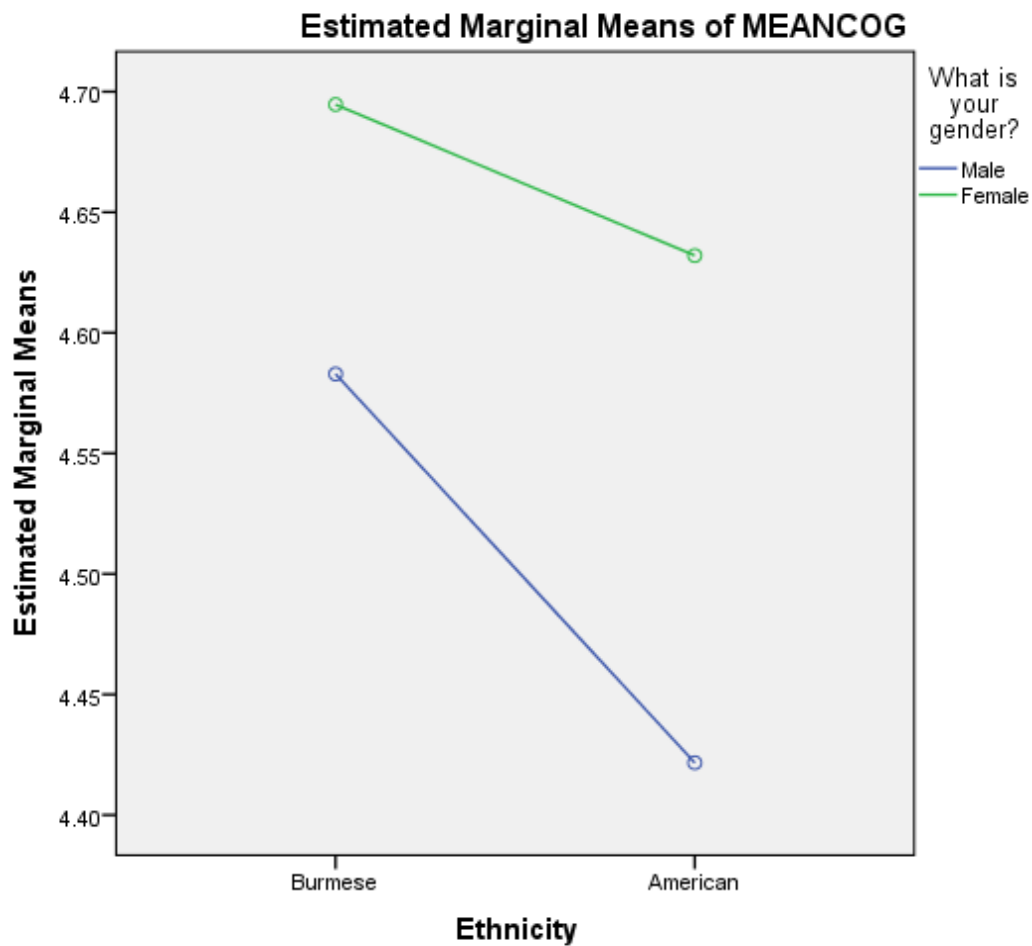
Additionally, differences in the Burmese students' overall engagement by grade level were observed to consistently decline in each dimension of engagement by each successive year from grade 6 to grade 8, as is shown in Figure 7. This also parallels Frontier's (2007) original study, in which engagement levels drop in each consecutive year from grade 6 to grade 8. Again, this can be viewed by graphing a visual comparison which shows similar (though not equal) slopes between grade 6 to grade 8 students' engagement for Burmese and American students in each of the aforementioned engagement dimensions, which is illustrated in figures 8-10.

Figure 7. *Mean Over All Engagement Comparison Burmese Study Site Grades 6-8*
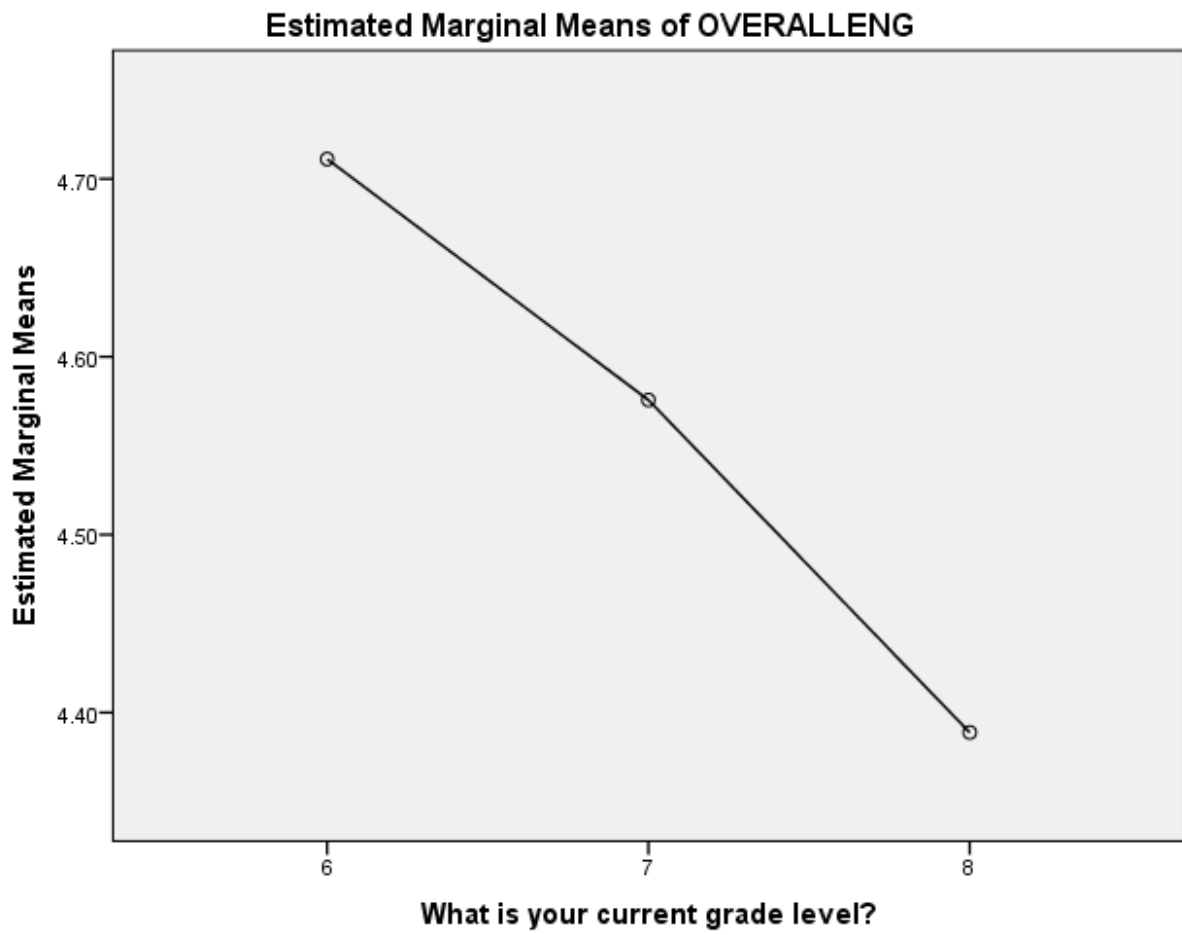
Figure 8. Mean Over All Engagement Comparison Between Burmese and American Grade
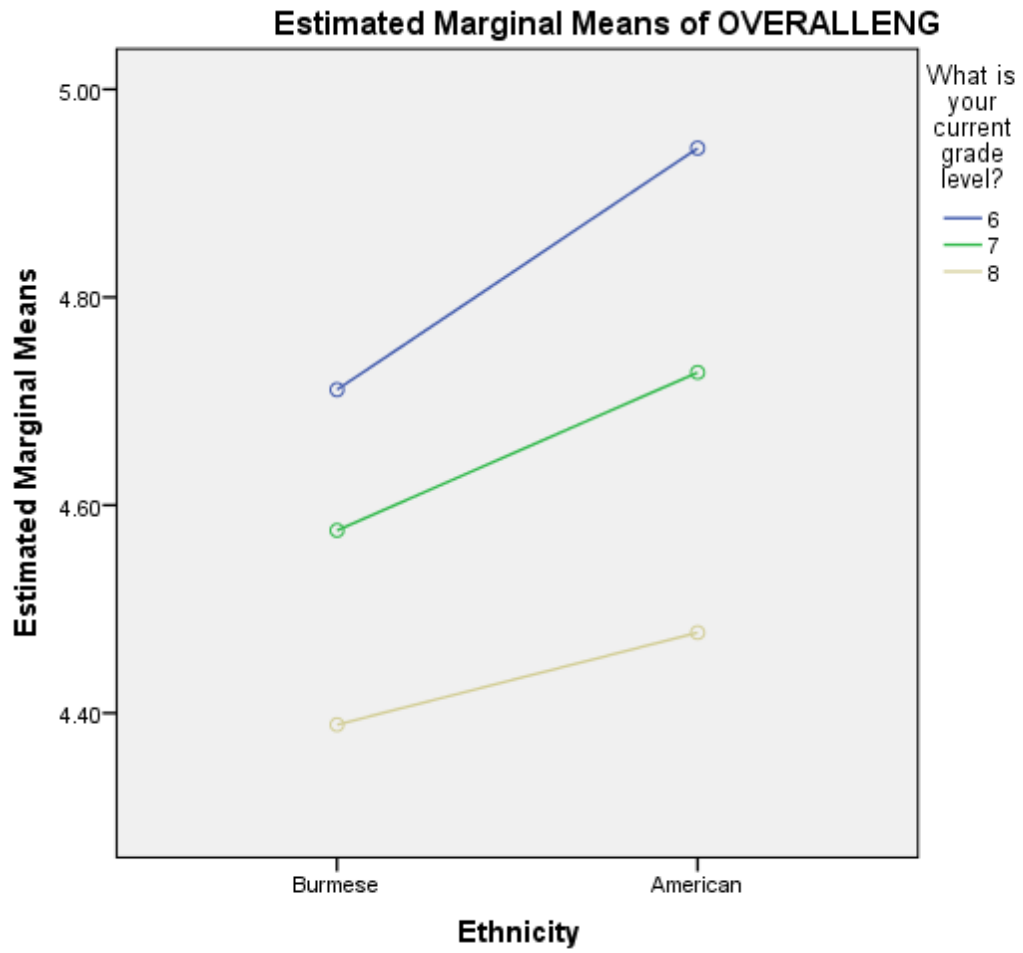
Levels 6-8

Figure 9. Mean Cogntive Engagement Comparison Between Burmese and American Grade Levels 6-8.
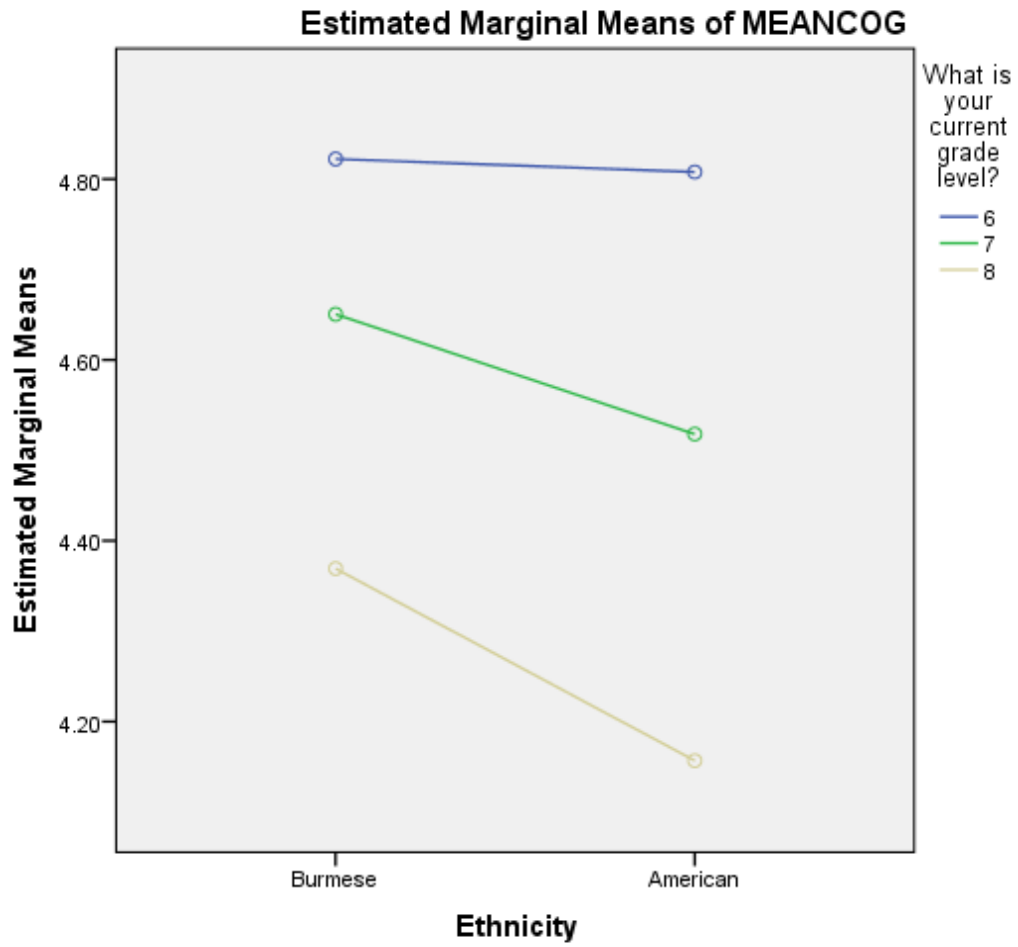
Figure 10. Mean Behavioral Comparison Between Burmese and American Grade Levels 6-8.
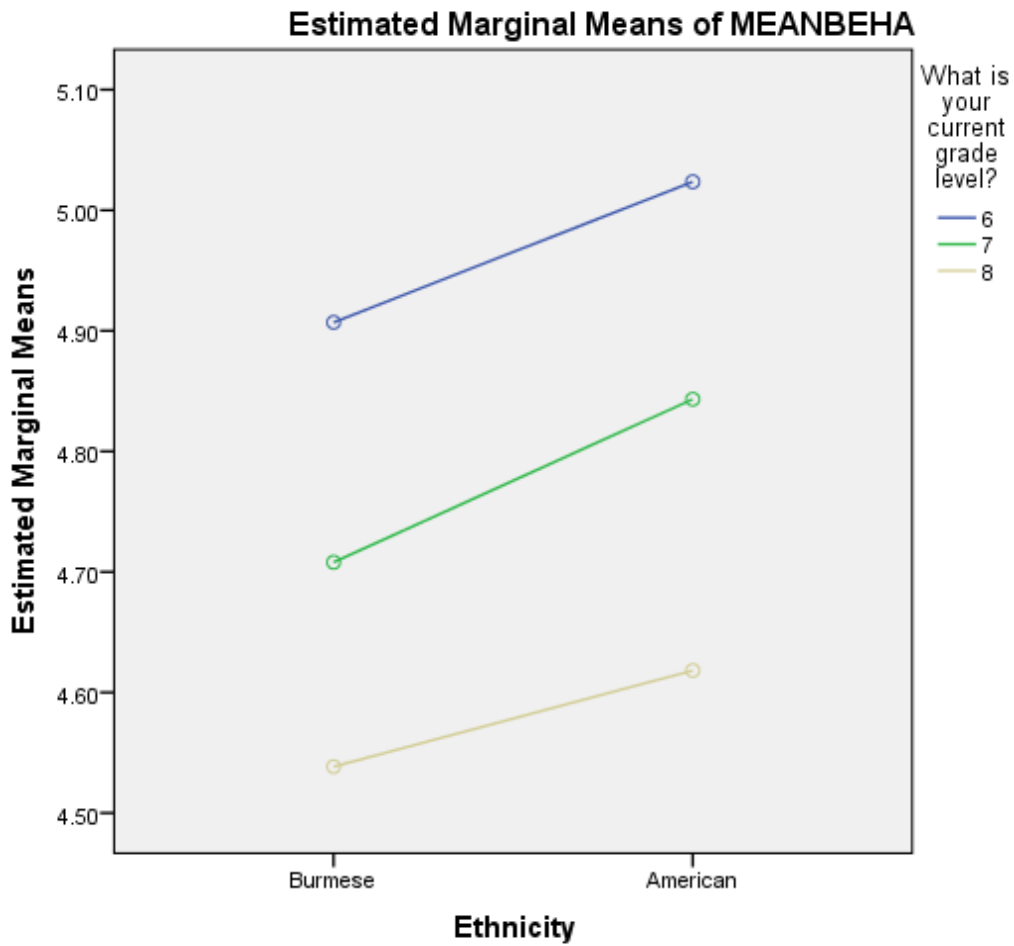
Finally, the statistical differences between Burmese and American students when compared for ethnicity by factorial ANOVA for behavioral engagement (.176), cognitive engagement (.267), and overall engagement (.055) were not found to differ significantly from their American Counterparts. To seek an explanation for these similar engagement levels and interpret the significance and implications of these findings, each is explored in order:

Gender. Both the Burmese female students and American female students reported higher levels of engagement than their respective male counterparts. While the differences in engagement levels between Burmese female and male students were not found to be statistically significant, (p >.05) this may be due to the relatively small sample size of the study. The fact that females reported higher levels in every engagement dimension makes this phenomenon worthy of greater exploration. The higher engagement of female students in school is well documented and supported by numerous prior researchers (Gentry et. al, 2002; Frontier, 2007; Wang, Willet and Eccles, 2011; Furrer and Skinner, 2003), who note higher engagement levels of females in comparison to males. Female students are more likely to engage in school (Gentry et al, 2002) and this phenomenon is not limited to the United States (Willms, 2000). This engagement may take the form of female students finding their school activities more interesting and enjoyable than their male counterparts (Gentry et al, 2002). It may also take the form of higher academic achievement (Burke, 1989). However, higher female engagement is not universally true across all countries when students are studying within their home countries national curriculum school (Willms, 2000). The implication of this study's findings suggest that gender differences in student engagement within an American curriculum school exist both inside and outside of the United States, and a proactive school's educational leaders will seek to identify if these gender differences exist in their respective school, and then seek to implement instructional methods and cultural policies to address these differences.

Grade Level. Both the Burmese and American students' engagement levels dropped across all dimensions in each successive grade level, from grade 6 to grade 8. Again while the differences in engagement levels between grades six, seven and eight were not found to be statistically significant, (p >.05) this may be due to the relatively small sample size of the study,

and the similarity in decreasing engagement levels across ascending grade levels in all dimensions of engagement demonstrates that the decrease in student engagement across the middle school years in an American curriculum school is not limited to the United States where much of the current research on student engagement has taken place. Within the United States, this research has shown that student engagement levels drop as students age from late elementary school, through middle and high school (Andermann, 2003; Frontier, 2007; Marks, 2000; Epstein & McPartland, 1976; Marsh, 1989). This may result in students losing valuable instructional years or even dropping out, the ultimate act of disengagement (Finnan and Komb, 2011). Educational leaders in international schools should make themselves' aware of possible declines in student engagement levels through successive middle school grades, and take measures to increase student engagement (Willms, 2000). Since middle school has been identified as highly linked to high school achievement (Zigross, et. al. 2011), and even to success in later life (National Middle School Association, 2003), further research into the extent to which student engagement can be increased, by the factors identified by the Burmese middle school students and their teachers/administrator, would be a logical next step. Ideally a longitudinal study, where an experimental group receives a treatment aimed at maintaining engagement levels which are then compared to a control group, would shed greater light on the extent to which the factors identified by the Burmese students positively affect engagement levels. At a minimum, educational leaders in American curriculum schools abroad should take active steps to measure and maintain student engagement levels across the middle school years.

Ethnicity. In whole group ethnic comparisons between the Burmese students and the American students, there is no statistically significant difference in engagement levels for the

behavioral, cognitive and overall engagement dimensions. The Burmese students' reported

engagement levels show that they perceive themselves to be engaged in the American curriculum

at similar levels to the American students in a private school. There are a number of possible

explanations for this, each with their own implications. These include: 1) current instructional

strategies being used by the American curriculum teachers at the study site in Myanmar, 2)

socio-economic factors, 3) the Burmese students home culture, which has been identified as

being deeply rooted in Buddhist philosophy. Each is considered in turn.

Teachers at the middle school study site in Myanmar, identified a number of proactive

instructional measures that they were using to increase their students' engagement. These

techniques included: setting high expectations, allowing partner/group work, assigning project

or hands-on experimental learning, making connections to students prior knowledge, and

teaching critical thinking. Each of these instructional techniques is supported by current

research. Setting high expectations may seem self evident, but research conducted by Marzano

(2000) has found high expectations to be the second most important factor available to school

leaders to increase student achievement. Furthermore, instructional practices such as group or

collaborative projects, hands on learning and experimental learning, and activating prior

knowledge have all been shown to increase student engagement (Akey, 2006; Heller et. al.,

2003). Similarly, teaching critical thinking skills such as analyzing evaluating and synthesizing

also increases student engagement (Zepke & Leach, 2010; Coates, et al, 2008). It is interesting

to note that all of the American curriculum instructors and the administrator at the study site in

Myanmar reported that the students would not receive these kinds of instructional practices in

Burmese schools and the Burmese students responded very positively to them. Again, additional

research to measure the positive effects that these instructional practices have on a treatment

group vs. a control group in an American curriculum schools abroad, is a logical next step. While this study demonstrates high student engagement in a single American curriculum school abroad, it lacks statistical data to demonstrate causality if any exists. Should such causational effects be proven, the implication for school leaders would include implementing and supporting those above-mentioned educational practices which proved statistically significant.   However, even in the absence of such data, this study demonstrates that it is possible for students outside of the United States to be equally engaged to American counterparts in American curriculum courses, and school leaders can now be challenged to assess and take active measures to increase their own students engagement levels, with the goal of meeting or exceeding those reported in the United States.

Another possible explanation for similar student achievement levels is the socio-economic status of both study groups. It should be noted that both the Burmese students and American private school students engagement levels are consistently and significantly higher than public school engagement levels, as measured by Frontier (2012) in later research. This may be due to a number of relevant socio-economic factors. Since socio-economic status is a significant predictor of student engagement in middle school students (Willms, 2000; Murdock, 1999), with students from lower income per family schools reporting significantly lower engagement levels than those from a private and more affluent school, (Frontier, 2012) there appears to be a link between student socio-economic affluence and their engagement levels. As the Burmese students attend a private tuition school with internationally contracted American teachers, they may be considered to be socio-economically advantaged members of Burmese society. As such they share economic advantages in their home country which may parallel those of the American students they are compared to. Further research into how educational leaders

can bridge the economic gap and increase student engagement in lower socio-economic conditions is called for (Willms, 2000).

Finally, an interesting alternative explanation for these similarly high engagement levels was offered in interviews with the teachers at the study site, who pointed to the importance of Buddhist philosophy as an influence on student engagement. A pertinent comment given was:

> Culturally, the most important person in their lives is their parents, and the second most important person in their life is their teacher. And it's literally the hierarchy of Buddhism. They are literally preprogrammed to be students. This is obedience. Who do you honor and obey? You obey your parents first, and your teachers second. It's pretty culturally engrained.

Religion and faith can play an important role in increasing students interest and effort in schooling. In a study of over 8000 high school students, Erickson and Phillips (2012) found that students who actively practice their religion are 40% more likely to graduate from high school and 70% more likely to attend college than . In literature addressing critical spirituality, McCray, Beachum, and Yawn (2012) postulated that while using spirituality as a tool to improve schools is an arduous task, it has vast potentials to among other things inspire teachers, establish connections with the community and improve schools for students.

Significance of Lower Levels of Emotional Engagement

While the Burmese students showed comparable levels of behavioral, cognitive and overall engagement, they reported statistically significant lower engagement than their American counterparts along ethnic lines. $P(0.00 < .05)$. This raises several intriguing themes, including the possibility that students from ethnic/cultural groups that are different from their instructors may be less likely to emotionally bond with their instructors, as well as the overall importance of

emotional engagement, and specific factors that affected the Burmese students' emotional engagement mean on the survey. Each is discussed in turn.

The lower levels of emotional engagement by the Burmese students are in line with Frontier's (2007) original work, which found that the non-white ethnic group that he measured (African-American students) had statistically significant lower levels of emotional engagement than their white counterparts. In fact, the mean emotional engagement score for African-American students (4.45) was much closer to the mean emotional engagement for the Burmese students (4.38) than the overall emotional engagement mean score of the private school in the United States (4.83). Other researchers have also found evidence to suggest that students who are a different ethnicity than their instructor will demonstrate lower emotional engagement. On a broad national level, Chapman, Laird, and KewalRamani (2010) noted higher levels of disengagement of minority students within the United States, when compared to their white counterparts. Similarly, Paret (2002) showed lower engagement rates for minority students who speak a second language at home other than English. On a smaller scale, in direct research on eighth grade students' emotional engagement, Finn and Voelkl (1993) found that minority students showed lower emotional engagement than their white counterparts, when the majority of teachers at the school study site were of a different ethnicity. Crosnoe, Johnson and Elder (2003) added to this understanding by demonstrating a positive correlation between white students' emotional engagement and the proportion of white instructors at the school. Conversely, they also demonstrated a negative correlation between the proportion of white instructors at a school study site and the emotional engagement of African-American boys and girls, and Latino girls attending the study site school.

There are a numerous possible reasons for the lower emotional engagement of minority subgroups. Crosnoe, Johnson and Elder (2003) suggest that the desired student-teacher bonding between the majority instructor and minority students is failing to take place. Christenson, Reschly, and Wylie (2012) cite a negative self-fulfilling prophecy on the part of ethnic minority students and ethnic majority teachers, where negative expectations on both parts are fulfilled and lead to further negative expectations. This causes a downward spiral which leads to lower emotional engagement. The work of Beachum and McCray (2011) suggests that (within American curriculum schools) minority students may feel a conflict with the values and edicts of the majority culture and their majority teachers. Peer and cultural pressures the minority student feels may cause him to not conform to the expectations of the teachers or the dominant culture in that (American curriculum) school. This may, once again, create a negative downward spiral in which negative feelings toward school and greater disengagement result in greater disciplinary consequences and generally poor relations with teachers and administration, resulting in dropping out, the greatest act of disengagement. Given that there is a lack of research into ethnic matching between instructors and students, as well as a lack of research into the nuanced affects that this may have on students' emotional engagement (Christenson, S., Reschly, A. L., & Wylie, C. (2012), greater research into this phenomena is called for.

Of interest, while the Burmese students emotional engagement was consistently lower, it again followed the same patterns of the American students, declining by gender from females to males (Figure 11), and declining by year in each successive grade level (Figure 12). This may be interpreted to mean that there are also consistent parallels in emotional engagement between the Burmese students and the American private school students by both gender and grade level, even

though the Burmese students perceive their engagement levels to be lower, particularly in those realms concerned with perceptions of trust with the adults at the school.

Lower emotional engagement levels are important as they are linked to student overall health (Resnick et. al. 1997) and emotional well being (Roeser, Eccles & Sameroff, 1998), as well as academic achievement (Wang, Haertel & Walberg 1993). Further explanation for the Burmese students' lower emotional engagement can be found by looking more closely at the individual items on the survey used for this study. The composite emotional engagement score is comprised of the mean of 11 survey questions designed to measure students emotional engagement at school. As such, individual questions may affect the mean emotional engagement score. Three of the five lowest mean engagement scores on the entire survey can be seen in the following three questions which all pertain to emotional engagement, as stated in Table 15. As a whole these three responses to survey questions effectively decreases the mean emotional engagement score by 0.11. However the survey item entitled, "I know an adult in this school who I could talk to if I had a personal problem," effectively decreases the mean emotional engagement score by .07 on its own. While none of these items completely change the mean emotional score, they do provide some interesting information as to what aspects of emotional engagement the students see as most lacking.

Table 15.

Salient Response to Emotional Engagement Survey Items

Survey Item	N	Mean	STD
I know an adult in this school who I could talk to if I had a personal problem. E	53	3.6604	1.56824
The adults in this school are proud of me. E	53	4.2075	1.11560
I trust the adults in this school to make decisions that are in my best interest. E	53	4.3019	1.03003

All of these questions share the commonality of measuring an aspect of the students emotional engagement with the adults at the school The Burmese students reported markedly lower engagement levels with the adults at the study site, when compared to the students in the private school in the United States. Of the teachers interviewed, two pertinent responses are as follows:

I only had one student in three years come to me with a serious family problem and ask my advice and ask what they should do. I've had that happen much more frequently in the United States.

With me, they are very respectful. I personally was a very respectful kid, on the surface, but didn't always respect my teachers. I come from the south (United States) and when I say "Yes, Ma'am," you can say it lots of different ways. Some think I pushed them a little hard, others this was not the case. I really don't know their perception of me in any great detail because they have this façade of respect.

Zepke and Leach (2011), postulated that teachers are central to student engagement. Teachers that are perceived to be approachable, sensitive to student needs, and well-prepared to teach cause students to reciprocate in kind with greater effort, higher expectations of themselves

for learning and a greater willingness to express their ideas. Further, the quality of student and teacher relationships impacts student motivation and attitudes toward school (Ryan & Patrick, 2001). Studies show that student perceptions of their relations with teachers is directly associated with student academic achievement (Roeser, Midgley & Urdan, 1996). A positive correlation exists between teacher engagement and student engagement (Parson & Harding 2011). Therefore, educational leaders must take active measures to foster a positive and collegiate learning environment between students and faculty (Willms, 2000).

Education leaders in American curriculum schools abroad should take proactive steps to identify and then positively increase the students' emotional engagement with the teachers at their school. This positive outreach to establish rapport and improve schooling may take various forms including: fostering trusting relationships (Ryan & Patrick, 2001), increasing approachability (Zepke, 2010), teachers taking an active interest in the students' home culture, and school leaders seeking to improve school/community relationships through culturally relevant leadership including workshops, focus groups and town meetings (McCray, Beachum, & Yawn, 2012) . School leaders and teachers who are from a different cultural background than their students must find a way to reach their students on an emotional level, to establish trust, and show interest and empathy.   While quantifying measures that increase emotional engagement is challenging, such an undertaking is worthy of greater study, with research focused solely on identifying and measuring factors which increasing emotional engagement.

Figure 11.
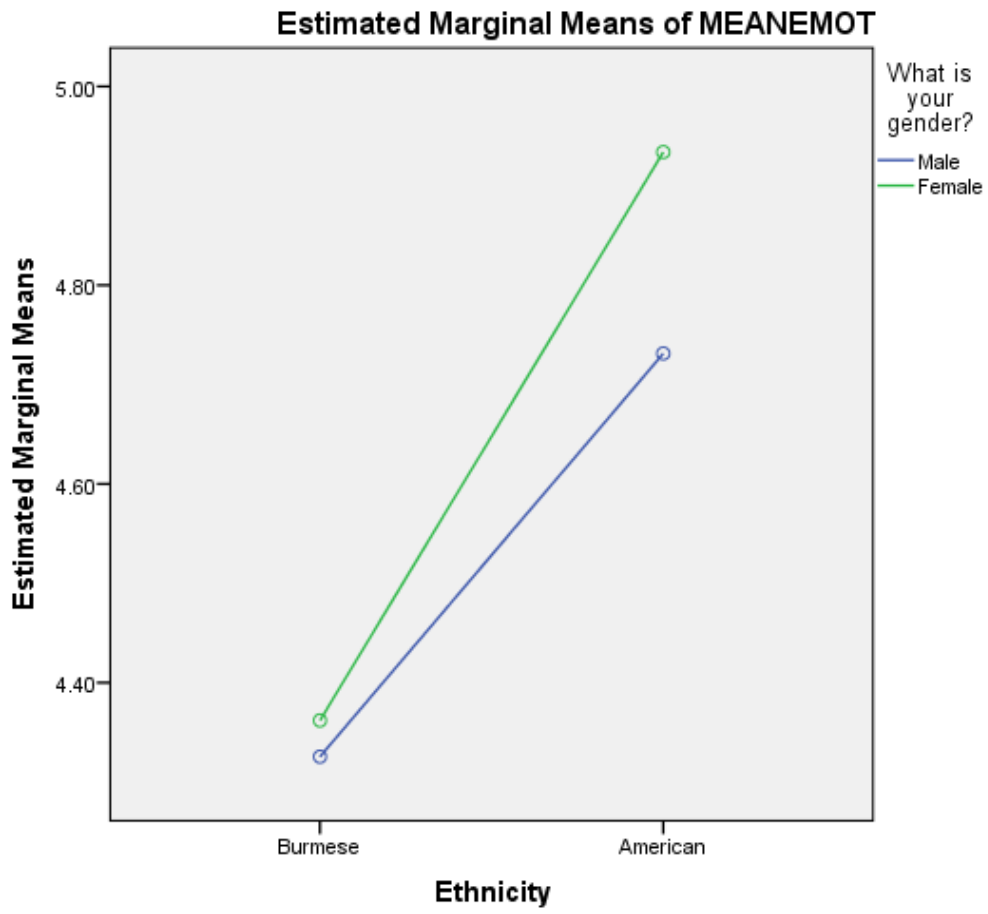
Figure 12.
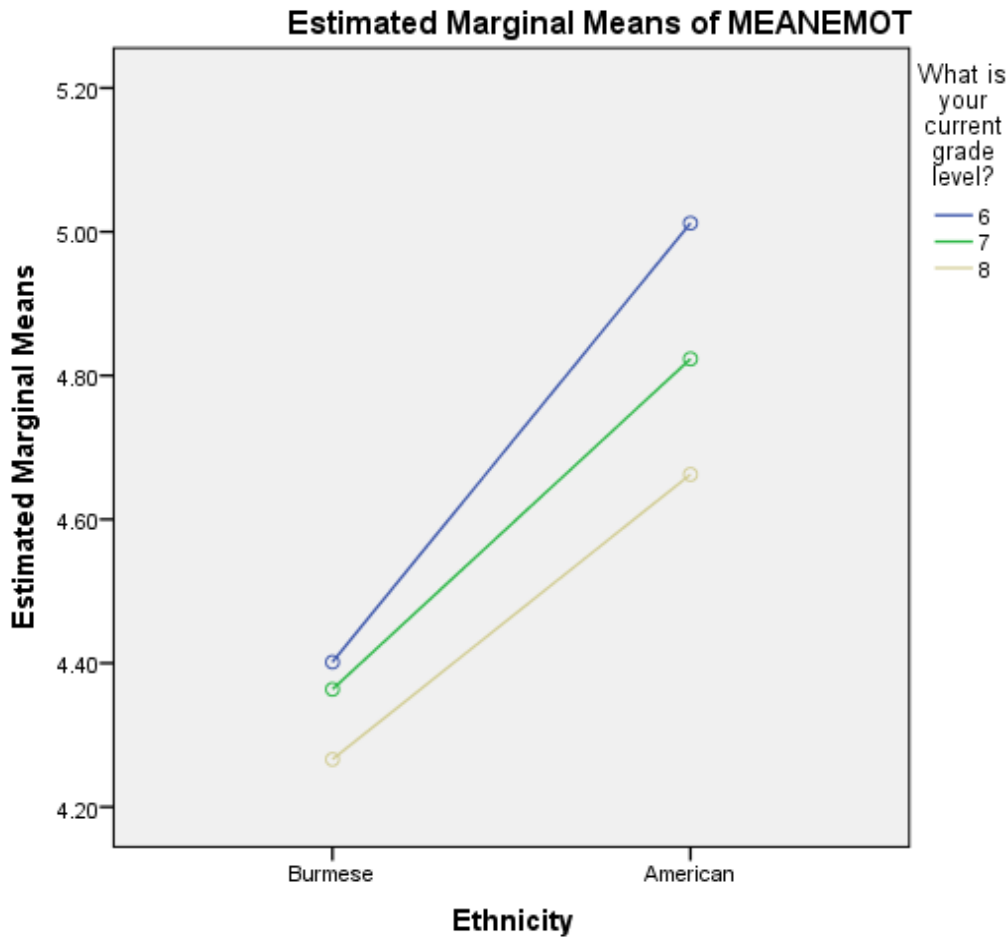
Factors that affected the Burmese Students Engagement

Numerous factors that affect student engagement were identified by both the students and

the teachers/administrator at the study site in Myanmar. These factors were identified by

qualitative responses to open ended questions by the students as well as the

teachers/administrator. Additional factors can also be seen by interpreting the salient mean

scores of the student responses to individual items in the engagement survey. Qualitative

responses are presented here for both students and the teachers/administrator followed by interpretation. Salient survey items are then presented with interpretation as well.

      Student Perceptions. The third question of the study was designed to address what factors the Burmese students believed would increase or decrease their engagement. Using the two stars and a wish method (Margetss, 2008), students were asked to identify their favorite elements of their schooling concerning their core American curriculum classes (Science, Social Studies, English, and Math), with the presumption that they would identify those aspects that resulted in high engagement. Several recurrent themes were reported. Those elements that were identified by more than 10% of the students as their favorite elements of the school are again reported here by number of responses, as well as percentile of the whole population. These factors included: American curriculum social studies classes which included partner work and project work (18 responses, 34%); American curriculum science classes which included hands on labs (15 responses, 28%); American curriculum math classes (15 responses, 28%); and American curriculum English classes which included plays and forensic activities (14 responses, 26%); critical thinking activities in unspecified classes (14 responses, 26%); partner and group work activities in unspecified classes (6 responses, 11%). Students were also asked to identify elements of the school that they would like to improve. The following recurrent themes were cited by more than 10% of the students: More hands on science experiments (9 responses, 17%) and more partner/group work activities (6 responses, 11%).

      It can be observed that the American curriculum social studies course had the highest percent of favorable responses. This may be due to an interest in U.S. culture or may reflect the personal appeal of the individual instructor.

It can also be observed that classes/activities in which regular interactive learning, including hands-on experiments and bodily-kinesthetic activities, were cited multiple times by students (social studies with project work, science classes with labs, English classes with plays and forensics), as were critical thinking activities. This is supported by Zepke and Leach, 2010 who postulate student engagement can be increased with activities which are active and collaborative, challenging, enriching and extend their natural academic abilities. Interviews with teachers provided some interesting responses that may illuminate why interactive learning was cited by numerous students:

> [We use] lots of hands-on in the classroom. True of any classroom I run, and they love it, because they don't get that [in government schools] and hadn't had that in their past experience."

> As long as I've got them doing something physically, actively engaged, touchy-feely, they're delighted and I can ask them to do all kinds of weird things and they do it to the best of their ability. If I have them doing something more mundane, like reading and writing, it's a little harder to corral them.

Interviews with teachers also elicited some interesting responses which may illuminate why critical thinking was cited by numerous students:

> There is a very huge lack of critical thinking skills taught in Asia as a whole. So my kids overall motivation and engagement is very high, not necessarily the material, but the style in how I teach. In my class, the kids experience things that they have never experienced before.

They are not encouraged to question or to really have any creative thought. So, because

of that, it takes a lot of work to get them to ask questions when they are not

understanding; to have an opinion and express it.

Challenging authority is not really in their quiver of skills. And so getting them to

question and challenge and not just go "yes, yes, yes" is probably the hardest thing that I

have to do.

Teacher Perceptions. Several factors were reported by the teachers/administrator as

increasing student engagement in the Burmese school. These factors included ESL teaching

techniques (4 responses, 80%), group/partner work (4 responses, 80%), interactive learning

experiences such as labs, experiments, and group theater (3 responses, 60%), and an

understanding by the instructor of the cultural significance of the Buddhist religion (4 responses,

80%.).

The importance of teaching English as a second language has expanded dramatically over

the last half century with even greater increases over the last two decades. As the phenomenon

of globalization and interconnectedness spreads across the world, special instructional techniques

are required for teaching students whose home language is not English (Lin & Chien, 2010)

While there are over 30 branches of English as second language instruction, effective instruction

for English Language Learners can include: building on prior knowledge and generating

enthusiasm (Brown, 2000) reading to students in English, accepting grammar and spelling errors,

pair and group discussions,(Lin & Chien, 2010), interactive discussion and listening, and testing

for comprehension (Rivers 2001.) Remarks given by the teachers during interviews

demonstrated the importance of ESL instruction at the study site in the American curriculum courses:

> We had one class where between 6 and 8 students of the 30 did not learn well in class. They hadn't been properly schooled. If it was translated to Burmese, they would have enjoyed it more. I would often have to read aloud and explain and highlight to the students. Then I would test them for understanding. Fifty percent of students who read novels chose parts I read aloud. That is, they chose parts I read aloud to report on. If a book had been written in Burmese, they probably would have chosen those.

And when asked by the researcher if there were specific ESL strategies that were used, one interviewee responded, " Yes. History lessons, group work, partner work. I found response logs one of the most effective teaching strategies. I never corrected spelling."

Teachers, as well as the students, mentioned the importance of group work. A salient comment that illustrated the importance of this follows.

> We used group work. They loved to work together. Partner work, they loved partner work, but not sharing a grade. They did not want to share a partner's grade. You must be careful to not partner students with some partners or one does all the work."

A final factor that was mentioned was the teachers awareness of Buddhism. In interviews, a teacher responded:

> I felt by aligning the books I chose to Buddhism, students would relate to the books, better. Now, Catcher in the Rye was difficult for them to understand. Stories that taught

morality they liked.   Sylvia Plath stories were easy for them to understand. They liked

the Joy Luck Club.   In every way, they are considering how to be a better human being.

Factors that are identified from multiple data sets can be triangulated and increase the

validity of findings (Patton, 2002). The factors that consistently were identified by both teachers

and students included hands on experiential learning activities and collaborative partner or group

work activities. These ideas are consistent with best practices for increasing student engagement

within the United States and abroad as identified by research. In an analysis of 93 different

studies on Student Engagement Zepke and Leach (2010) determined that creating learning

experiences that allow students to enjoy learning relationships with others and creating learning

experiences that are active and collaborative are two of the top four actions educator's can take to

increase student engagement. The qualitative responses given by the students and teachers in

Myanmar suggest that this is indeed taking place.

The students' survey also offered some clear indications of factors that affected student

engagement. Questions which categorize the students' relationships with the adults at the school

reflected some of the lowest mean scores, as seen in Table 15. However, questions that took

measurement of a student's views on intrinsic and extrinsic motivation were salient, as seen in

Table 16. The highest mean score on the entire survey (5.37) was given in response to the

survey question: "If I work hard, I can do well in my classes." Slightly lower, but still well

above the mean score for all survey items (4.58) were student responses to: "I think it is

important to work hard in school," (5.06) and "I think what I learn in my classes will help me be

successful in life," (5.02). All of this suggests that the Burmese students believe that they highly

value a positive work ethnic which will reward them with success in life. However, it is

interesting to note that students admitted they would not give full efforts without the extrinsic

reward of grades. As demonstrated by their mean response to the survey question, "If there were

no grades given in the school, I'd still do my schoolwork;" (4.28), which is well below the

overall engagement mean for the Burmese students. Clearly, the Burmese students enter into the

American curriculum with some strong beliefs about the value of hard work and the rewards it

brings. However, this does not necessarily translate to intrinsic motivation. The Burmese

students have communicated that they expect grades and success in life to result from their

efforts. For international educators, the implication of this is simple, while students may come to

classes with the belief that their own hard work is valuable, they also respond to assessments

(Kuh, 2005) in the form of grades; and to instructors that make connections between student

efforts in current classes and how this empowers students to become active in their world and

affect changes in their environment (Zepke & Leach, 2011).

Table 16.

Salient Responses Denoting Highest Mean Engagement Levels

Item	N	Mean	Std Dev.
I think it is important to work hard in school. B	53	5.0566	.92850
If I work hard. I can do well in my classes. B	52	5.3654	.90811
If there were no grades given in this school, I'd still do my schoolwork. C	50	4.2800	1.14357
I think what I learn in my classes will help me be successful in life. C	53	5.0189	.84331

In summary, while the analysis of this study suggest that the American curriculum can be

used effectively with students of non-U.S. cultural background outside of the United States, to

produce high cognitive and behavioral engagement; school leaders should be aware of

modifications necessary to address gender and grade level differences. Further educational

leaders in American curriculum schools serving students abroad should take proactive steps

ensure their students emotional engagement with faculty by building rapport, empathy and trust.

Factors that may positively affect student engagement include instructional technique, socio-

economic status, cultural and religious beliefs, and expectations of the benefits that an American

education may bring.

Contributions and Limitations

This study examined aspects of student engagement at an American curriculum school

abroad and sought to build upon existing academic research on student engagement by utilizing a

validated research instrument (Frontier, 2007), based on the prior works of Fredricks,

Blumenfeld, and Paris (2004), to expand the understanding of student engagement outside of the

United States. As there is currently a lack of research into how students outside of the United

States engage in American curriculum schools, this study provided a small first step in

understanding this phenomenon, by taking an in-depth look at student engagement in an

American curriculum in a school abroad. The study included awareness of leadership of

potential differences in student engagement, and the need to modify curriculum to increase

engagement. As such, this study may be of interest to school leaders of multi–ethnic schools in

the U.S. and abroad, as well as curriculum developers, instructors, and parents working with

schools with multi-ethnic/multi-cultural/multi-national populations, as it contributes to an

understanding of the way different sub-groups of students experience school.

The contributions of this research include some interesting, though limited, additions to

the body of literature addressing student engagement. This study was the pilot use of Frontier's

Student Engagement Survey outside of the United States. It expands on the earlier work of

Frontier by being the first study to measure engagement levels of non-U.S. students (the

Burmese students) studying in an American curriculum school while living in a foreign country.

It found strong statistical parallels in student cognitive, behavioral and overall engagement along

gender and grade level between the Burmese students at an American curriculum school in

Myanmar and American students in a private school in the United States. It also showed that

engagement patterns in American curriculum schools abroad are not universal, as students at the

Myanmar school showed significantly lower levels of emotional engagement than their

American counterparts. Finally this study identified student and teacher perceptions of factors

that can be used to increase student engagement in an American curriculum school abroad.

A limitation of this study was that it was conducted with only a single Burmese middle

school population, for comparison to a far larger U.S. school population. It is possible to make

inferences about similar schools with similar profiles, but one cannot state with certainty that the

findings of this study can be generalized to other situations.   However, with a single Burmese

school providing data, the Burmese students had a common context and similar sets of school

experiences. Frontier (2007) refers to this as onsite design, where using a single population for

comparison improves the validity of the study, as all students have shared the same school

environment, U.S. curriculum, teachers, and peers.

A second limitation to this study was that it relied on students' perceptions through a self-

reporting survey. As such, the perceptions reported may have reflected the students' most recent

or intense experiences and may not have been reflective of their engagement as a whole

(Schwarz, 1999; cited from Frontier Rel). An example of this would be if a student had a

particularly difficult day or had just attended a more demanding class prior to taking the survey.

Furthermore, responses in a self-reporting survey are dependent on the respondents' truthfulness. While students were assured of anonymity, they may still have tried to answer to impress other classmates or please the teacher (Frontier, 2007). To ensure the rigor of the study, I gathered both quantitative and qualitative data (Creswell & Plano Clark, 2006). Patton (2002) asserts that this triangulation is useful, as it illuminates the nuances of the research problem and also helps to test consistency between the different data sets. As a final measure, two separate random samplings of the Burmese students' quantitative data scores, used to calculate the composite engagement score, were calculated and then expressed and compared against each other in two different confidence intervals. These confidence intervals were within the 95th percentile of each other and thus showed that the results of the student engagement survey are consistent across the data set obtained from all the Burmese students.

A final limitation of the study was that it contained a survey instrument that was tested and validated in the United States (Frontier, 2006), not in Myanmar. While this instrument had not been used before on students in a Burmese international school, it had been validated against an English speaking population attending an American curriculum school in the United States. Further, this study included qualitative measures from teachers, students and administrators, in order to better understand student results and allow for triangulation and greater validity (Creswell & Plano Clark, 2006).

Implications for further research

This study raises a number of interesting points that can be further developed. While this study measured perceptions of student engagement in an American Curriculum school in Myanmar and identified factors that students and teachers reported to increase student engagement, it was undertaken with a small sample size, which may have affected statistical significance. It was beyond the scope of this study to quantify what effect proactive measures to increase engagement may have on students' engagement. While it identified lower engagement levels in ascending middle school grade levels, and by male students, it did not quantify to what extent these engagement levels can be positively impacted. Nor was it within the scope of this study to measure engagement levels of other ethnic groups that study in American curriculum schools abroad in other countries. Furthermore, this study identified interesting themes that may provide a basis for further research, including the impact of religion on student engagement, factors that can increase the emotional engagement of students with regards to teachers from different cultures, and the nuances of emotional disconnects that may exist between minority subgroups of students and their majority teachers in American curriculum schools. I submit the following implications for further research.

Implication One. Additional research should be conducted in American curriculum schools abroad in other countries. As this study was limited in scope to a single study site in Myanmar, there is still a great deal that could be learned from additional research at other study sites in other countries. Furthermore, if this study were to be replicated with greater numbers in additional study sites, it might be possible to demonstrate similar results with a higher degree of statistical significance, which could be obtained from greater sample size. Similarly, greater research into the engagement phenomena in other countries would make triangulation possible

(Patton, 2002), and could produce other factors that affect the perceived levels of non-American students' engagement in American curriculum schools abroad.

Implication Two. Longitudinal research should be conducted to determine the extent to which factors identified as increasing student engagement within American curriculum schools can be utilized by international schools using the American curriculum abroad, to increase engagement for subsections of a population by gender, grade level and ethnicity. Ideally, a longitudinal study that compares a control group with a group receiving a treatment that includes factors such as: hands-on activities, project work, partner/group work and critical thinking activities.

Implication Three. Further research into how school leaders and teachers who are from different cultural backgrounds can increase emotional engagement with their students is called for. I would hope to implement a study in which the original study site in Myanmar takes active measures to increase emotional engagement between their students and teachers, and then measures engagement levels again at the conclusion of that study. These measures could include active steps to build connections with the community, such as bringing in leaders to foster cross-cultural conversations with students, or collaborative school community events where the teachers are immersed in the cultural rituals of the community, and model enthusiasm and respect for students individuality, spirituality and home culture.

Implication Four. It would prove enlightening to study the impact that cultural/ religious beliefs have on student engagement. A consistent theme identified by the faculty at the study site was that the students' religion was an important factor in their school engagement. Quantifying the impact that this may have on student engagement was beyond the scope of this

study, nor did the students have an opportunity to explain any relationship that this may have had on their own motivation to engage in school. A follow-up study to determine any link that the students may perceive to exist between their cultural/religious beliefs and their engagement in school would be interesting. Further, measures to determine if high levels of engagement in the American curriculum are also reported by other Buddhist cultures, as well as other religions, may prove useful to school leaders as they seek out better understanding of their students' culture and belief systems, to find new ways to engage their students.

Implication Five. A final implication calls for further research centered on ethnic subgroups that study in American curriculum schools, in order to get a deeper understanding of the emotional engagement disconnects between subgroups of students from different ethnicities than their American curriculum teachers. This research could illuminate the effects of culturally relevant leadership and school community outreach programs, such as ethnic/cultural workshops, focus group discussions and community meetings.

Conclusion

Student engagement is a multifaceted phenomenon which is affected by numerous factors. It includes cognitive, behavioral and emotional dimensions. In this study, students from Myanmar were compared to students in the United States, in order to develop a better understanding of how non-U.S. students in an American curriculum school overseas engage with an American curriculum.

Students in Myanmar showed comparable engagement levels to students in American private school across cognitive, behavioral and overall dimensions by factors of ethnicity, gender and grade level. Teaching methodology, including active learning, critical thinking activities, and partner/group work were identified as factors that positively affected students' engagement. Additionally, extrinsic motivation in the form of expected grades and life rewards, as well as environmental factors such as socio-economic advantages and the students culture and religion were also identified as factors that positively affected students' engagement.

However, the Burmese students reported significantly lower emotional engagement levels, when compared to American students in American private schools. Lower emotional engagement levels were reported particularly in elements involving student/teacher interpersonal confidences, trust and empathy. Teachers at the study site supported this finding in interviews, noting that students are respectful but do not confide in faculty.

School leaders should use this study to inform themselves of potential differences in engagement patterns for different ethnic groups, and subsections of those groups, in American curriculum schools overseas. These patterns are complex, and must be sought out in order for teachers and administrators to better understand and serve their student bodies. School leaders

may have to make adaptations for gender, grade level, and ethnicity in different ways, depending on their students' needs. Additionally, students who display positive academic and social traits may still not be fully engaging in their schooling. School leaders and teachers who are from a different cultural background than their students must also find a way to reach their students on all levels, including emotional, cognitive and behavioral levels.

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Appendix A: Convergent Design Model

Quan data collection from students using Likert Scale Student Engagement Survey

+

qual data collection from students using open ended questions on survey

Analyze quan data from Burmese students survey create composite scores

Analyze qual data from Burmese students by reading, coding, and pulling out themes

Interview teachers to further explain Burmese students engagement in American Curriculum

analyze results by reading, coding, pulling out themes

Interview administrator to further explain Burmese students engagement in American Curriculum

analyze results by reading, coding, pulling out themes

Use student teachers and administrators qualitative data to corroborate, and validate Burmese students engagement

Compare Burmese students and U.S students using 3 Way Factorial ANOVA

If differences use relevant literature as well as qualitative data from students, teachers, admin to interpret and explain

Pros-

Quantitative data + 3 sources of qualitative data (students, teachers, admin.)

Teachers and admin. responses triangulate and elaborate on nuances of Burmese student engagement.

Appendix B: Student Engagement Survey Questions (Frontier, 2007)

Question	Alignment to Research Base
1) My classes are interesting to me. (c)	Assor, Kaplan & Roth, 2002; Jensen, 1998; Marks, 2000
2) In my classes, I need to think creatively. (c)	Gardner, 1985; Sternberg, 2005
3) My teachers work with me to make sure that I am learning.(b)	Roeser, Eccles, Sameroff, 1998; Marks, 2000
4) I enjoy my schoolwork. (c)	Csikszentmihalyi, 1990
5) In my classes I have the opportunity to solve interesting problems with others.(b)	Assor, Kaplan & Roth, 2002; Csikszentmihalyi, 1990; Marks, 2000; Schneider & Shernoff, 2003; Schlecty, 2002, Sternberg, 2005
6) If I work hard, I can do well in my classes.(b)	Dweck, 2000
7) What I learn in my classes helps me in my day-to-day life.(c)	Assor, Kaplan & Roth, 2002; Marks, 2000; National Research Council and Institute of Medicine, 2004
8) I think that what I learn in my classes will help me be successful in life.(c)	Marks, 2000; National Research Council and Institute of Medicine, 2004
9) In my classes I am allowed to make choices about projects I do or what I learn.(b)	Irwin (2004); Assor, Kaplan & Roth, 2002; Deci, 1995, Eccles & Midgley, 1989.
10) My teachers challenge me to do my best work in school.(b)	Csikszentmihalayi, Schneider & Shernoff, 2003; Marks, 2000
11) Sometimes I like doing my schoolwork so much that time passes by very quickly.(c)	Csikszentmihalyi, 1990
12) If there were no grades given in this school, I'd still do my school work.(c)	Deci, 1995; Deci & Ryan 1985
13. My assignments are completed and turned in on time.(b)	Finn 1995; Skinner & Belmont, 1993
14) I am proud of my school work.(c)	Deci, 1995; Dweck, 2000
15) I think it is important to learn what my teachers are teaching.(c)	Assor, Kaplan & Roth, 2002; Deci, 1995; Dweck, 2000
16) My teachers would say that I participate in class.(b)	Birch & Ladd, 1997; Connell, 1990; Skinner & Belmont, 1993
17) I like talking to my teachers about what I'm learning about in school.(b)	Connell, 1990; Finn, 1989; Marks, 2000; Skinner & Belmont,1993;
18) I know an adult in this school who I could talk to if I had a personal problem.(e)	Furrer & Skinner, 2003; Murdock, Anderman & Hidge, 2000; Wentzel, 1997
19) My teachers are interested in my thoughts and opinions.(e)	Assor, Kaplan & Roth, 2002; Furrer & Skinner, 2003; Marks, 2000; Murdock, Anderman & Hidge, 2000; Wentzel, 1997
20) My teachers are interested in me as a student and as a person.(e)	Furrer & Skinner, 2003; Marzano, 1992; Murdock, Anderman & Hidge, 2000; Wentzel, 1997
21) I trust at least one adult in this school.(e)	Furrer & Skinner, 2003; Wang, et.al , 1993; Wentzel, 1997
22) I enjoy my classes in this school (c)	Hawkins et al. 2001
23) My classmates care about me. (e)	Furrer & Skinner, 2003; Wilson and Elliot, 2003
24) I am proud of my school.(e)	Finn, 1989; Wilson and Elliot, 2003
25) The adults in this school are proud of me.(e)	Ferguson 2002, Wentzel, 1997
26) I think it is important to work hard in school.	Connelll & Wellborn, 1991; Dweck, 2000
27) If I don't understand something I am supposed to learn, I ask my teacher for help.(b)	Assor, Kaplan & Roth, 2002; Meece, Blumenfeld, & Hoyle, 1998
28) The adults in this school trust me to make good decisions. (e)	Wentzel, 1997; Wilson and Elliot, 2003,
29) I trust the adults in this school to make decisions that are in my best interest. (e)	Furrer & Skinner, 2003; Wentzel, 1997; Wilson and Elliot, 2003
30) I am safe from physical harm when I am at school.(e)	Roeser, Eccles & Sameroff, 1998
31) It is safe for me to express my ideas and opinions when I am at school.(e)	Furrer & Skinner, 2003; Roeser, Eccles & Sameroff, 1998
32) The rules in this school are fair.(b)	Marks, 2000; Marzano, 1992; Merton, 1949
33) The books I read for school make sense to me.(c)	Dweck, 2000
34) My teacher's lessons make sense to me.(c)	Dweck, 2000
35) When I'm in school, I follow this school's rules.(b)	Merton, 1949, Schlechty, 2002

[1] (b) = behavioral, (c) = cognitive, (e) = emotional

Appendix C: Additional Qualitative Questions for Students

Questions for students

Name two things you like about your core classes? (In this question core classes refers to any of your math, social studies, English, or science classes.)

1.

2.

Name two things you would change about your core classes if you could? (In this question core classes refers to any of your math, social studies, English, or science classes.)

1.

2.

Do you find you learn more in classes taught by male teachers, female teachers, or that it makes no difference?

Appendix D: Questions for Teachers and Admin.

Cognitive Engagement- Do you find that your students are, in general, more interested, equally interested, or less interested in their class-work, in comparison to their North American counterparts? What factors make your students show greater enjoyment or engagement in their class-work at school?

Behavioral Engagement- Do you find your students' in class participation greater than, less than or equal to their North American counterparts? How would you describe the students engagement in their class-work in school? How would you characterize their behaviors towards American curriculum courses?

Emotional Engagement- How would you describe the interactions between Middle School students and their North American teachers? How would you characterize the interactions of the middle school students and their classmates?

Gender- How would you characterize students engagement by gender?

Male

Female

How would you characterize students engagement by Grade Level?

6

7

8

Do you have anything else you would like to add?

Appendix E: Sample 3 way Factorial ANOVA's for Engagement Subscales/Composite Scores

Trait 1- Cognitive Engagement

<u>Males</u>   <u>Females</u>

Grade	Burmese	American	Grade	Burmese	American
6			6		
7			7		
8			8		

Trait 2- Behavioral Engagement

<u>Males</u>   <u>Females</u>

Grade	Burmese	American	Grade	Burmese	American
6			6		
7			7		
8			8		

Trait 3- Emotional Engagement

<u>Males</u>   <u>Females</u>

Grade	Burmese	American	Grade	Burmese	American
6			6		
7			7		
8			8		

Trait 4- Composite Engagement

<u>Males</u>   <u>Females</u>

Grade		American	Grade	Burmese	American
6			6		
7			7		
8			8		

Appendix F: Alignment of Student Qualitative Questions to Survey Questions

Dimension of Engagement	Qualitative Questions for Students (These 2 questions are designed to allow short unprompted responses which can be coded for corroboration and validation. Questions may also draw out further details in each designated dimension of engagement.)	Responses will be coded and answers may align with the following Quantitative Survey Questions for each dimension.
Behavioral Engagement	Name two things you like about your core classes? Name two things you would change about your core classes if you could?	5, 6, 9, 10, 13, 16, 17, 35
Cognitive Engagement	Name two things you like about your core classes? Name two things you would change about your core classes if you could?	1, 2, 4, 11,14, 22 7,8 12, 14, 15,
Emotional Engagement	Name two things you like about your core classes? Name two things you would change about your core classes if you could?	18, 19, 20,21, 27, 28, 29, 31

Appendix G: Alignment of Qualitative Questions for Teacher/Administrator and Survey

Questions

Dimension of Engagement	Qualitative Questions for Teachers/Administrator	Aligns with Quantitative Survey Questions.
	These questions are designed to corroborate and draw out further details in each designated dimension of engagement	
Cognitive Engagement-	Do you find that your students are, in general, more interested, equally interested, or less interested in their class-work, in comparison to their North American counterparts? What factors make your students show greater enjoyment or engagement in their class-work at school?	1,2,4,7,8 11, 14, 15,22 33, 34
Behavioral Engagement-	Do you find your students' in class participation greater than, less than or equal to their North American counterparts? How would you describe the students engagement in their class-work in school? How would you characterize their behaviors towards American curriculum courses?	3, 5,6, 7,9,32 13, 16,17,26, 35
Emotional Engagement-	How would you describe the interactions between Middle School students and their North American teachers? How would you characterize the interactions of the middle school students and their classmates?	18,19,20,21, 25,27, 28, 29 23, 30,

Appendix H: Sample Letter to Parents

Dear Parents and Middle School Students of Yangon International School,

I would like to request permission for your child's participation in my research on student engagement in American curriculum subjects. This study is part of a doctoral degree through Lehigh University's Department of Education. The study will seek to understand what are the levels of student engagement (desire to actively learn) in their own schooling, and what factors influence these levels of engagement. The School's director, Mr. Cameron Sabo, has given permission for the students participation in this study, provided that parents will give their kind consent for their own child(ren) to participate. Dr. Jill Sperandio of Lehigh University is the supervisor of this research. I would greatly appreciate you help in this study.

If you agree for your child to participate in this study, he or she will be asked to take an online survey between March 22 and March 28th, via the online survey platform SurveyMonkey in the school's computer lab. I am also asking core class teachers in Math, Science, Social Studies and English to participate by being interviewed in regards to what helps students to best engage in their learning.

Confidentiality: Student responses will be completely confidential and no names will be attached to any responses. Student surveys will be assigned a random number for coding the surveys and it will not be possible for anyone to personally identify any students by their responses, as the information will be collected by an anonymous online survey with no names being asked for. Only the researcher will be able to view the results of individual coded surveys and names will not be attached. The results of individual surveys will not be shared with anyone or published in any way. The survey contains 39 questions and will take about **15** minutes to fill out.

Voluntary Nature of the Study: Your child's participation is voluntary. You and your child's participation will benefit educators around the world as they seek to understand how to best engage students in learning. The benefits of participating in this study are helping your child's school better understand what engages students the most, and how students perceive their own engagement in school.

Contacts and Questions: I welcome any comments if you wish to email me directly at pjw204@lehigh.edu or contact me by phone at 001 612 978 2369. I foresee no risks to any students by participating in this study and would be happy to answer any and all questions. If you have any questions about this study and would like to speak to someone other than myself, you can contact Mr. Cameron Sabo, the Director at Yangon International School at 951 549451 or by email at cam.sabo@gmail.net. My supervisor, Dr. Jill Sperandio, can be reached at Lehigh University at 001 610 758 3392, or by email at jis204@lehigh.edu. All reports or correspondence is confidential.

Sincerely,

Peter Williams

Doctoral Researcher

Appendix I: Headmaster's Permission to Conduct Research

YANGON ACADEMY 📖

Cameron Sabo, Director

March 19, 2013

To Whom It May Concern,

I have read through the materials associated with Mr. Pete William's proposed research and do hereby approve Mr. Williams to do a student engagement study at Yangon Academy during the spring semester of 2013. Specifically, I understand that this research includes a student survey and corresponding parental permission slips which will be given to our middle school students and their parents, as well as a Skype interview of myself and four subject area teachers. I further understand that the survey will be given online as explained in the consent letter and form. I understand that the participants will be chosen by Peter Williams based on availability and willingness to join the study and that participation is voluntary and parents and students will not be identified in any way by the researcher. In addition, no harm or identification will come to students and/or their parents if they choose not to participate in this study. I will be available to answer any questions parents may have about the research project and will send a letter to parents in support of Mr. Williams research at Yangon Academy.

I look forward to the results from the final research.

Sincerely,

Cameron Sabo

Cameron Sabo

Director

35B Thatkatho Yeik Mon Housing, New University Avenue, Bahan Township, Yangon, Myanmar
Tel: 549 451, 557 219, Email: yadirector@gmail.com, Website: www.yangon-academy.org

Appendix J: Vitae

Peter John Williams

317 Brovold Lane
Gully, Minnesota
56646
e-mail: aslanlucy@yahoo.com

PERSONAL DATA

Birthplace	Ashland, Wi
Birth date	August 7, 1969
Marriage Status	Married; two children ages 7 and 10

EDUCATION

University of Minnesota; Minneapolis, MN, USA

B.A. Psychology   1993

University of Wisconsin; River Falls, WI, USA

M.S.E. Elementary Education   1996

Lehigh University; Bethlehem, PA, USA

Principal certification   2006

D.Ed. Educational Leadership (ABD)   2011

OCCUPATIONAL BACKGROUND

Sept. '97 - Sept. '02	Elementary Teacher St. Paul Public Schools	St. Paul, MN
Sept. '02 - Sept. '04	Elementary Teacher American Creativity Academy	Kuwait City, Kuwait
Sept. '04 -Sept. '07	Elementary Teacher Damascus Community School	Damascus, Syria

Sept. '07 - Sept.'09	Elementary Principal	
	American International School	Abuja, Nigeria
Sept. '09 - June '10	Director	
	Surefoot International School	Calabar, Nigeria
Sept. '10 - Sept. '12	K-12 Teacher	
	Damascus Community School	Damascus, Syria
Sept. '13- Present	Technology Teacher	
	Fosston Public School	Fosston, MN

PROFESSIONAL ACHIEVEMENTS

- Presented Workshops at Professional Educators Conference Kuwait
- Served on Accreditation Committee at American Creativity Academy, Kuwait
- Served as Middle States Accreditation Visiting Team Member at Saudi Aramco
- Served on School Re-Accreditation Committee at Damascus Community School, Syria
- Implemented GradeQuick Admin Plus at American International School, Nigeria
- Delivered staff development workshops on Teacher/Parent Communications, Classroom Management, Process Writing, and Literature Circles at American International School, Nigeria
- Implemented K-10 California Curriculum at Surefoot International School, Nigeria
- Helped Reopen Damascus Community School after two year closure.
- Presented Parent Workshop on Homework Without Tears at Damascus Community School, Syria
- Served as teacher and technology trainer at Fosston Public Schools, Fosston, MN