The Link between Academic Achievement and Academic Expectations Stress

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Abstract: Academic achievements as reflected in the General Weighted Averages (GWAs) of 412 high school students from a state college in the Philippines were correlated with their scores in the Academic Expectations Stress Inventory (AESI). This was done to see if link exists between GWAs and AESI scores. GWA is the average of grades in all subjects taken, whether passed or failed and serves as an indicator of students' academic achievement in a given school year. It is reflected in the report cards of high school students. On the other hand, AESI is a nine-item inventory with two domains: expectations of teachers/parents and expectations of self. Statistical analyses showed that there are positive significant relationships between GWAs and scores in the AESI and are significant at the 0.01 and 0.05 levels.

Keywords: *Academic stress, Expectations, General weighted averages, High school students, State College*

1. Introduction

Every society acknowledges the importance of education. As a matter of fact, education is a global priority (Bose, 2009) and is recognized as one of the principal means available to foster a deeper and more harmonious form of human development and thereby to reduce poverty, exclusion, ignorance, oppression and war (Burnett, 2008). Education, being considered important, requires everyone who goes to school to do their best and one basic parameter of students' performances in school is academic achievement. Giving due attention to academic achievement is important because academic achievement has been one of the most important goals of the educational process (Nuthanap, 2007) and it plays a significant role in assuring quality (Ali, Jusoff, Ali, Mokhtar, Syafena & Salamat, 2009).

In high school, like in the case of the Philippines, academic achievement is measured with the use of General Weighted Averages (GWAs). GWA is the average of grades in all subjects taken, whether passed or failed and serves as an indicator of students' academic achievement in a given school year. GWA is reflected in the report cards of high school students. On the other hand, stress is said to be "a process- an interaction between the person and the environment" (Wheeler, 2007, p. 3). Stress is also considered a problem because "no one can consistently predict the amount or kind of stress that can turn an otherwise normal, positive human situation into one involving an unpredictable, irrational response" (Neil, 1994, p. 2). Academic stress in particular is the product of a combination of academic-related demands that exceed the adaptive resources available to an individual (Wilks, 2008).

In the end, conducting a study that tries to look at the link specifically between academic achievement and academic expectations stress is important. Kaplan, Liu, and Kaplan (2005) found in their study that students exposed to high stress school environment that is characterized by increased in academic expectations particularly self-expectations impedes academic performance. Similarly, Malik and Balda (2006) concluded that "adolescents whose minds are full of apprehensions are not free to use their energy and ability in achieving" (p. 62). Conner, Pope, and Galloway (2009), conversely, made a conclusion in their study that although academic stress among students with high General Point Averages (GPAs) does not affect their grades because they are meeting academic standards, there are some indications that they are sacrificing their health and well-being while Ang and Huan (2006b) identified that "academic stress and in particular, academic expectations, is a factor contributing to suicidal ideation in adolescents" (p. 134).

Academic Stress arising from Expectations: Generally, high school life is perceived to be stressful. Schoolwork, family adaptation and peer relationships are the main sources of stress" (Li & Yen, 1998) and in an Asian context, academic stress arising from adolescents' self-expectations and expectations of others (e.g.,

parents and teachers) are particularly salient (Ang & Huan, 2006b). Among Filipinos, specifically, there is no concept of the other in the other person and the other is also one's self (de Leon, 2007). The expectations of others are regarded as one's own. Once in school, "adolescents often see themselves as being evaluated in terms of their academic performance and the pressure to excel is an important measure of their success" (Ang & Huan, 2006b, p.134). Academic stress is an important concern because it adversely affects overall adjustment of students (Husain, Kumar, & Husain, 2008) and one form of academic stress that merits attention is the one arising from expectations.

Expectations in Relation to Academic Achievements: The impact of expectations in relation to academic achievements has already been documented. For example, Goyette and Yu in 1997 found that "parental expectations play an important role in explaining the Asian-white gap for all ethnic groups and stand out as the only explanatory factor accounting for Southeast Asian students' relatively high expectations" (p. 16) among the participants in their study. Also, Asakawa and Csikszentmihalyi (1998) found in their research that "Asian American adolescents' academic motivation and future goals were strongly affected by their special feelings toward their parents" (p. 141). Additionally, Goyette and Yu (1997) found in another study that "Asians are indeed more likely than whites to enroll in college and to major in fields that have high financial payoffs, and these racial differences are attributable to both educational expectation and occupational expectation" (p. 29). Indeed, expectations among Asians have relation to academic achievement whether set by oneself or by significant others.

This study generally aims to determine the link between academic achievements as reflected in the GWAs and academic stress arising from expectations as reflected in the AESI scores of high school students. Specifically, this study aims:

- To determine the correlation between GWAs and AESI scores of male respondents;
- To determine the correlation between GWAs and AESI scores of female respondents and;
- To determine the correlation between GWAs and AESI scores of respondents in general

2. Conceptual Framework

Conner et al. (2009) made a conclusion in their study that students with high GPAs are in distress because even if their grades are not affected as manifested by being able to meet the demands of academic standards, there are some indications that they are sacrificing their health and well-being. This conclusion by Conner et al. in 2009 is related to a significant finding in the field of subjective well-being. Diener, Oishi, and Lucas (2003) found that "there are trade-offs that seem inherent in certain societal patterns: cultural strategies that have both costs and benefits" (p. 412). One manifestation of trade-offs according to the authors was that "people are sometimes willing to sacrifice immediate happiness for the sake of achieving other goals that are valued in their culture" (Diener et al., 2003, p. 412).

Education is greatly valued in Asian cultures which include the Filipino culture where everyone is expected to do well in school. Thus, everyone will do everything just to perform well academically to the extent of sacrificing immediate happiness. Sacrifices made for education's sake can be associated with the experience of stress. From this, it can be said that students who perform well academically whether male or female also experiences a lot of academic stresses and one form of academic stress that they experience constantly is academic stress arising from expectations. This is so because adolescents' self-expectations together with the expectations of others like that of teachers and parents are particularly salient in the Asian context (Ang & Huan, 2006). Expectations of parents impacting academic achievement were already established in earlier studies. For example, Asakawa and Csikszentmihalyi (1998) found that academic motivation and goals were affected by feelings toward parents while Goyette and Yu (1997) found that high expectations among Asians can be attributed to parental expectations.

Hypotheses of the Study

- There is a correlation between the GWAs and AESI scores of male respondents.
- There is a correlation between the GWAs and AESI scores of female respondents.

- There is a correlation between GWAs and AESI scores of respondents in general.

3. Method

Respondents: The respondents of this study were 412 high school students enrolled in a laboratory high school of a state college in Pampanga, Philippines during the School Year 2010-2011. There were 160 males and 252 females. Their mean age was 14.02 with a standard deviation of 1.24.

Measures: Two measures were the main sources of information in this study, GWAs and AESI scores. GWAs are the average of grades in all subjects taken, whether passed or failed and serves as an indicator of students' academic achievement in a given school year. On the other hand, the AESI is a self-report scale to be completed by students. AESI attempts to measure perceived stress of students as it relates to academic work/concerns. Sources of stress could come from two main domains: expectations of teachers/parents and expectations of self. The AESI consists of nine items, and two scales (Ang & Huan, 2006a).

Procedure: The GWAs of the 412 high school students as reflected in their report cards during the School Year 2010-2011 were correlated with their AESI scores. This was done in order to establish the link between GWAs and AESI scores among male, female, and the respondents in general. The Pearson product-moment correlation coefficient was used. The Pearson Product-Moment Correlation Coefficient, which is sometimes referred to as the PMCC and typically denoted by "*r*," is a measure of the correlation (linear dependence) between two variables (Rodgers & Nicewander, 1988).

4. Results

The correlation between the GWAs and AESI scores of male respondents is presented Table 1 while the correlation between the GWAs and AESI scores of female respondents is presented in Table 2 and presented in Table 3 is the correlation between GWAs and AESI scores of the respondents in general.

Table 1: Correlation between GWAs and AESI scores of Male Respondents

	N	r-value	p-value
Teachers/Parents Expectations Domain Scores	160	0.31**	0.00
Self-Expectations Domain Scores	160	0.31**	0.00
AESI Total Scores	160	0.35**	0.00

*Note. **Correlation is significant at the 0.01 level (2-tailed)*

As seen in Table 1, significant correlations are established between GWAs and scores in the teachers/parents expectations domain, self-expectations domain, and AESI total scores of the male respondents. It must be further noted that all of the correlations are positive. Significant positive correlations meant that there are strong correlations between the variables. As the GWAs of the male respondents' increases, their AESI total scores and their scores in teachers/parents and self- expectations domains of the AESI also increases and vice-versa.

Table 2: Correlation between GWAs and AESI scores of Female Respondents

	N	r-value	p-value
Teachers/Parents Expectations Domain Scores	252	-0.04	0.56
Self-Expectations Domain Scores	252	0.14*	0.03
AESI Total Scores	252	0.04	0.50

*Note. *Correlation is significant at the 0.05 level (2-tailed).*

As seen in Table 2, the only significant correlation established is between GWAs and scores in the self-expectations domain in the AESI of female respondents. It must be further noted that the correlation is positive. A significant positive correlation meant that there is a strong correlation between the two variables.

As the GWAs of the female respondents' increases, their scores in the self-expectations domain of AESI also increases and vice-versa.

Table 3: Correlation between GWAs and AESI scores of Respondents in General

	N	r-value	p-value
Teachers/Parents Expectations Domain Scores	412	0.16**	0.00
Self-Expectations Domain Scores	412	0.26**	0.00
AESI Total Scores	412	0.23**	0.00

Note. **Correlation is significant at the 0.01 level (2-tailed)

As seen in Table 3, significant correlations are established between GWAs and scores in the teachers/parents expectations domain, self-expectations domain, and AESI total scores of the respondents in general. It must be further noted that all of the correlations are positive. Significant positive correlations meant that there are strong correlations between the variables. As the GWAs of the respondents in general increases, their AESI total scores and their scores in teachers/parents and self- expectations domains of the AESI also increases and vice-versa.

Discussion: This study generally aimed to determine the link between academic achievements as reflected in the GWAs and academic stress arising from expectations as reflected in the AESI scores of high school students. This study specifically aimed to determine the correlation between GWAs and AESI scores of male respondents, determine the correlation between GWAs and AESI scores of female respondents, and determine the correlation between GWAs and AESI scores of respondents in general. Results from this study suggest that indeed there is a link between academic achievements as reflected in the GWAs and academic stress arising from expectations as reflected in the AESI scores of high school students. Significant positive correlations only show that as GWAs increases, academic expectations arising from expectations as measured by AESI also increases and vice-versa. This claim therefore proved the first and third hypotheses while partly proving the second hypothesis since the only significant correlation established was between GWAs and female respondents' scores in the self-expectations domain of AESI.

Academic stress that is the result of expectations of others like that of parents is indeed very prominent in the Asian context. This was earlier claimed by Ang and Huan (2006b) and may be partly attributed to the findings of the study conducted by Dotterre, Hoffman, Crouter, and McHale (2008). The researchers found that "adolescent behaviors such as school performance help to shape the quality of parent-adolescent relationships. When adolescents struggle in school, it can be a source of stress and tension in the parent-adolescent relationship (p. 776). The researchers believed that parent-adolescent conflict has implications for academic achievement and that academic achievement predicts later conflict support the notion that processes in one setting have implications for other settings. In line with this, Asakawa and Csikszentmihalyi (1998) found in their research conducted in the United States of America that Asian American adolescents' academic motivation and future goals were strongly affected by their special feelings toward their parents.

Regarding teacher expectations, Ozturk and Debalak (2005) claimed that within the individual classroom, there is a clear correlation between teacher expectations and student achievement. High expectations represent an overall orientation toward improvement and growth in the classroom, which has been demonstrated to be a defining characteristic of benchmark schools while Goldberg (2010) cited that teacher expectations of academic achievement have little impact on student achievement. However, teachers do have a significant impact on student achievement outcomes. They have this impact through teacher behavior. It must be noted, however, expectations of teachers and parents were not treated separately in this study. This is because of the fact that teachers and parents' expectations were merged in one of the two domains of AESI.

On the other hand, academic stress arising from self-expectations can be partly attributed to achievement anxiety although achievement anxiety is beyond the scope of this study. Brogaard (2010) believes that despite disagreement about the predominant cause of academic stress, researchers agree that the most common form of anxiety causing academic stress is achievement anxiety. Additionally, for Brogaard, "achievement anxiety is a fear of failure in an academic setting that arises when parents, teachers or the

student's own expectations exceed what the student believes he/she can realistically achieve" (para. 3). Specifically, Brogaard cites that sources of achievement anxiety include failure to satisfy ambitious or overly critical parents' expectations in early childhood as well as early exposure to overachieving siblings or peers. However, it must be remembered also that "one's own expectations of oneself are important in the sense that people usually set their goals first and then develop their action plans accordingly" (Orturk & Debalak, 2005, para. 1). Additionally, "others' expectations of individuals are also critical since people tend to strive to accomplish what is expected of them. In both cases, without high expectations, individuals invariably drift toward mediocrity or even failure" (Orturk & Debalak, 2005). The investigation of academic stress, generally, among high school students is a meaningful undertaking especially when stress is recognized to affect students. Several studies have already documented the effects of stress on students (e.g. Agolla & Ongori, 2009; Hussain et al., 2008; Masih & Gulrez, 2006; Shaikh et al., 2004; Sulaiman, Hassan, Sopian, & Abdullah, 2009). Emotional disabilities, aggressive behavior, shyness, social phobia, and often lack interest in otherwise enjoyable activities are the most common signs of stress (Husain et al., 2008).

Ultimately, as Li and Yen (1998) believe screening for high-risk students and launching programs and activity for counseling the adolescents or parents is essential. In the case of this study, these high-risk students were the high-achieving students since positive correlations were established between GWAs and scores in the AESI. This study proves that as the academic achievements as reflected in the GWAs of high school students increases, academic stress arising from expectations increases too. The results generated from this study aside from contributing to the pool of knowledge regarding academic stress can also serve as bases for instituting interventions where they are needed the most. Instituting interventions is necessary especially when it is aimed at improving the academic lives of students particularly those who are considered high achievers.

5. Conclusion and Recommendations

The results of this study only proved that there is a link between academic achievement as reflected in GWAs and academic stress arising from expectations. The positive correlations established show that as the GWAs increases, scores in the AESI also increase and vice-versa. Therefore, such information must be recognized when organizing intervention programs aimed at combating or even just minimizing the negative effects of stress especially among high achieving high school students.

Despite the many limitations of this study, the results of this study proved that academic achievement as reflected in GWAs and academic stress arising from expectations are positively correlated. In line with this, it is suggested that the study be replicated in other locations, provinces, and regions in the Philippines or abroad, using the same measures (GWAs and AESI) with greater number of respondents and with greater number of schools to see if the same results will be generated. Results from other studies to be conducted can be used to compare and contrast with the results of this study.

Limitations of the Study

This study focused on the link between academic achievements as reflected in GWAs and academic stress arising from expectations as measured by AESI. Also, this study was limited to 412 respondents that came from the laboratory high school of a state college. And since the study was limited to those who were enrolled in the laboratory high school of a state college in Pampanga (Philippines) in the School Year 2010-2011, the results of this study cannot be generalized to other high schools either in the Philippines or abroad.

References

- Agolla, J. E. & Ongori, H. (2009). An Assessment of Academic Stress among Undergraduate Students: The Case of University of Botswana. *Educational Research and Review*, 4(2), 63-70.
- Ali, N., Jussof, K., Ali, S., Mokhtar, N., Syafena, A., & Salamat, S. (2009). The Factors Influencing Students' Performance at Universiti Teknologi MARA Kedah, Malaysia. *Management Science and Engineering*, 3(4), 81-90.

- Ang, R. P., & Huan, V. S. (2006a). Academic Expectations Stress Inventory (AESI): Development, Factor Analysis, Reliability, and Validity. *Educational and Psychological Measurement*, 66(3), 522-539.
- Ang, R. P. & Huan, V. S. (2006b). Relationship between Academic Stress and Suicidal Ideation: Testing for Depression as a Mediator using Multiple Regression. *Child Psychiatry and Human Development*, 37, 133-143.
- Asakawa K. & Csikszentmihalyi M. (1998). Feelings of Connectedness and Internalization of Values in Asian American Adolescents. *Journal of Youth Adolescents*, 29, 121-145.
- Bose, J. (2009). Education and the Architecture of an Inclusive Society. *South Asian Journal of Peace Building*, 2(1), 2-4.
- Brogaard, B. (2010). Academic Stress and its Relation to Anxiety in College Students. Retrieved from http://www.ehow.com/about_6663520_academic-relation-anxiety-college-students.html#ixzz10HP.
- Burnett, N. (2008). The Delors Report: A Guide towards Education for All. *European Journal of Education*, 43(2), 181-187.
- Conner, J., Pope, D., & Galloway, M. (2009). Success with Less Stress. *Health and Learning*, 67(4), 54-58.
- De Leon Jr., F. M. (2007). Hiyang: A Filipino Approach to Healing. *Humanities Diliman*, 4(1), 187-191.
- Diener E., Oishi, S., & Lucas, R. E. (2002) Personality, Culture and Subjective Well-Being: Emotional and Cognitive Evaluations of Life. *Annual Review of Psychology*, 54, 403-425.
- Dotterer, A. M., Hoffman, L., Crouter, A. C., & McHale, S. M. (2008). A Longitudinal Examination of the Bidirectional Links between Academic Achievement and Parent-Adolescent Conflict. *Journal of Family Issues*, 29(6), 762-779.
- Goldberg, D. (2010). Teacher Expectation and Academic Achievement. Retrieved from <https://dgoldblog.wordpress.com/2010/09/06/teacher-expectations-and-academic-achievement/>.
- Goyette, K. & Yu, X. (1997). Educational Expectations of Asian-American Youth: Determinants of Ethnic Differences. Report No. 97-396. Ann Arbor, MI: Research Reports-Population Studies Center, University of Michigan.
- Hussain, A., Kumar, A., & Husain A. (2008). Academic Stress and Adjustment among High School Students. *Journal of the Indian Academy of Applied Psychology*, 34, 70-73.
- Kaplan, D. S., Liu, R. X., & Kaplam, H. B. (2005). School Related Stress in Early Adolescence and Academic Performance Three Years Later: The Conditional Influence of Self Expectations. *Social Psychology of Education*, 8(1), 3-17.
- Li, Y. M. & Yen, L. L. (1998). Daily Stress and Its Correlates among High School Students in Hualien City. *Kaohsiung Journal of Medical Sciences*, 14, 234-241.
- Malik, P. R. & Balda, S. (2006). High IQ Students under Stress: Do They Perform Poorly in Academics? *Anthropologist*, 8(2), 61-62.
- Masih, P. P. & Gulrez, N. K. (2006). Age and Gender Differences on Stress. In Husain, A. & Khan, M. I. (eds.). *Recent Trends in Human Stress Management* (97-104). New Delhi, India: Global Mission Publishing House.
- Neil, R. (1994). *Stress: Taming the Tyrant*. Brushton, NY: TEACH Services Inc.
- Nuthanap, G. (2007). Gender Analysis of Academic Achievement among High School Students. Master's Thesis. Karnataka State, India: Department of Human Development, College of Rural Home Science, Dharwad University of Agricultural Sciences.
- Ozturk, M. A. & Debalak, C. (2005). Setting Realistically High Academic Standards and Expectations. Retrieved from <http://www.usca.edu/essays/vol152005/ozturkrev.pdf>.
- Rodgers, J. L. & Nicewander, W. A. (1988). Thirteen Ways to Look at the Correlation Coefficient. *The American Statistician*, 42(1), 59-66.
- Shaikh, B. T., Kahloon, A., Kazmi, M., Khalid, H., Nawaz, K., Khan, K.A., & Khan, S. (2004). Students, Stress and Coping Strategies: A Case of Pakistani Medical School. *Education for Health*, 17(3), 346-353.
- Sulaiman, T., Hassan, A., Sopian, V. M., & Abdullah, S. K. (2009). The Level of Stress among Students in Urban and Rural Secondary Schools in Malaysia. *European Journal of Social Sciences*, 10(2), 179-184.
- Wheeler, C. M. (2007). *10 Simple Solutions to Stress*. Oakland, CA: New Harbinger Publications, Inc.
- Wilks, S. E. (2008). Resilience amid Academic Stress: The Moderating Impact of Social Support among Social Work Students. *Advances in Social Work*, 9(2), 106-125.