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High School General Point Average (GPA) as Basis for Students' Academic Performance in College

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ABSTRACT

One of the determinants for a successful career is academic performance. The study sought to determine the academic performance of freshmen Education students from the school years 2010–2013. The data were gathered through prepared questionnaires. Collected data were analyzed through frequency counts, percentage, and measure of central tendency. Results showed that more female students were attracted to teaching profession. Moreover, it was discovered that their parents are farmers and housekeepers with an average monthly income of Php 9, 752.92 (216 USD) only. Most of the respondents graduated from public high schools. Some of them did not meet CHED's grade requirement of 85% when enrolled. Test of relationship between high school and college GPAs (academic performance) showed a moderate inverse relationship. The Analysis of Variance (ANOVA) showed a significant linear relationship between high school (GPA) and college (GPA) at .01 alpha level of significance. Therefore, students'

academic performance in college can be determined by their high school GPA. With this, CHED's regulating policy during enrollment should be strictly practiced in the Visayas State University (VSU), Philippines. Lastly, the College of Education should impose retention scheme for freshmen Education students especially for males.

Keywords – Education, freshmen education students, academic performance, quantitative-correlational research design, Philippines

INTRODUCTION

One of the keys to achieve success is academic performance. Those students who were achievers in academics have the edge compared to those who were not (Daulta, 2008). Some studies showed that academic performance could be influenced by social economic status, parent's educational background, and family size (Downey, 1995; Susan, 2001). Geiser and Santelices (2007) added that high school Grade Point Average (GPA) could also be the indicator of students' academic performance in college.

GPA is the calculation of the total final grades earned and dividing this by the total grades awarded. It is also used to determine student's academic performance, honor roll, class rank, Latin honors in schools/universities. GPA is also indicated in report cards in various high schools (Oxford Dictionaries, 2015).

Based on the study conducted by Geiser and Santelices (2007), high school GPA is considered to be the best predictor of how well students performed in college. This finding did not only apply to the result of the first-year college grades, but also for the long-term college results as well as the whole four-year college duration. High school GPA is the consistent and best indicator of students' college performance. They found out that high school report card could likely summarize or predict students' college performance. The connection between high school GPA and college GPA was so strong that it was very important for universities and institutions to carefully consider as one of the admission measures (Belfield & Crosta, 2012).

On the other hand, Huws, Reddy, and Talcott (2006) refuted the findings that previous academic performance could tell one's future academic performance. They revealed that the subjects studied by the students and the grades they gained failed to predict their performance at the university.

Meanwhile, some researchers considered other factors that could affect

academic performance. Kainuwa and Yusuf (2013) cited that parent's educational attainment and socio-economic background affected their children's education. It was revealed that there was less involvement between low-income parents to their children's education. This resulted to their children to become less expected active in the school. Furthermore, Downey (1995) supported that academic performance could lower down if family size grows. This is because parents' economic resources and time will be divided to each of their children. Economic resources included computer at home, savings for college and other educational materials dropped immediately as another child has been added. Interpersonal resources such as interacting with their children about school and their day-to-day activities declined gradually.

On the contrary, the study conducted by Erdem, Şentürk, and Arslan (2007) in Gaziosmanpaşa University, Turkey revealed that having siblings could increase students' GPA. The researchers perceived that having a sister or brother in the school might encourage them to study hard. In another study conducted in the Kalibo, Aklan, Philippines, Oducado and Penuela (2014) examined the predictors of academic performance. They agreed to other scholars that high school GPA has a very significant relationship with the academic performance of nursing students. They even suggested developing an admission policy that includes high school GPA and other important previous academic work such as English and Science subjects. They added that proficient GPA in high school could help students cope with the rigidity in college (Oducado & Penuela, 2014).

This notion was supported by Kam & Ch'ng (2009) when they conducted a similar study in the INTI International College Penang, Malaysia. Their study involved 453 students taking Electrical and Electronic Program. Their findings revealed that students who do well in Science and Mathematics subjects during high school most likely do well in engineering discipline during college.

In another study conducted in King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand, high school GPA was associated with the group membership of student learning ability. Based on their research, students who got high school cumulative GPA of less than 2.75 falls in low-moderate learning ability group. Additionally, those who got 2.77and above were classified as students who have high learning ability in college. The other factors that could influence student's group membership according to their learning ability are hometown, high school program, and mode of admission (Nochai and Nochai, 2011).

Pascua, Dela Cruz, and Valderam (2012) also tried to determine the factors

that could influence the teacher education students in a state university of Northern Philippines. Based on their findings, high school GPA was a very important predictor of college's academic performance. Hence, higher high school GPA means higher academic performance in college.

According to the Philippine Education for all 2015 Review Report (National Education for All Review, 2014), there was an increase in enrollment in public schools alone from 19,823,554 kindergarten – secondary high school level SY: 2010- 2011 to 20,674,892 SY: 2012-2013. In response to the growing population in the country, the demand for constant changes in the society, and the challenge of world-class competitiveness, CHED has created an admission policy in college. The policy was regulated in many Higher Education Institutions offering education degree to ensure that only academic achievers could be admitted. CHED's policy mandated that only those who have the high school GPA of 85% and above will be accepted in Teacher Education degree (Commission on Higher Education, 1999). Thus, the study was conducted to determine whether this policy was a reliable prediction of freshmen education students' performance at VSU.

FRAMEWORK

It was conceptualized that freshmen education students' academic performance in college was influenced by their parents' income, parents' educational attainment, household size and high school grade point average.

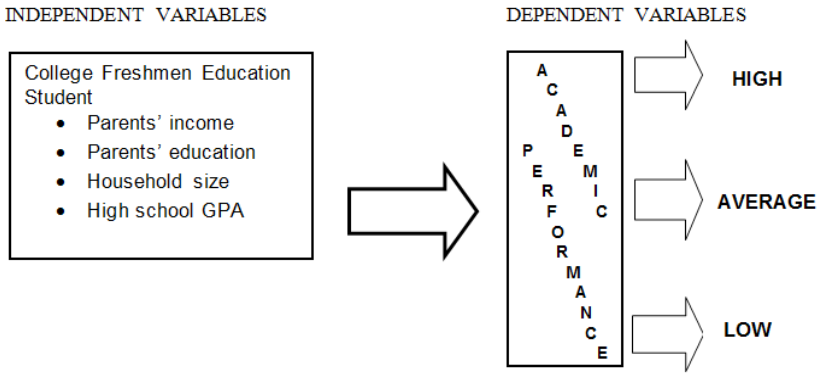

Figure 1. Relationship of independent and dependent variables.

OBJECTIVES OF THE STUDY

The study aimed to determine the academic performance of freshmen education students from the school years 2010 – 2011, 2011 – 2012, and 2012 – 2013. It also sought to find the relationship existed between college academic performances in terms of: parents' income, household size, and parents' educational attainment. Also, it identified the relationship of high school Grade Point Average (GPA) and college GPA of freshmen education students. Lastly, it aimed to gather intervention activities implemented to improve the academic performance of freshmen Education students.

METHODOLOGY

The study used the quantitative-correlational research design. According to Creswell (2003), with this research design, a theory would be tested by identifying narrow hypotheses, and collected data would support or refute the latter. The data were gathered through instrument that measured attitudes. The information collected were analyzed using statistical procedures and hypothesis testing.

The study involved 257 freshmen Education students, regardless of their high school GPA, from the Department of Teacher Education, College of Education, Visayas State University, Leyte, Philippines. The respondents were selected from the total of 858 students in three school years: SY 2010 – 2011, SY 2011 – 2012, and SY 2012 – 2013. The study used simple random sampling method. A desired 30% samples were taken from the total population and were randomly selected. Names were listed down to a piece of paper rolled and placed in a box. These names were drawn out from the box that served as respondents. This process was repeated until the substantial number of respondents was drawn out. Survey questionnaires were given to the respondents. Secondary data were gathered from the registrar's office after a request to conduct the study was approved.

To describe the characteristics of the respondents, frequency counts, percentage, and means were used in analyzing the data. Academic performance was measured by their Grade Point Average (GPA) obtained during their first year in college. Their grades were categorized into High (GPA = 1.0 – 1.875), Average (GPA = 1.88 – 2.625), and Low (GPA = 2.63 – 5.00). To determine the relationship between parents' income, education and household size to college academic performance, a (2 x 3) chi – square test was used which was set at .05 alpha level of significance.

To find out the relationship between high school grades (GPA) and college freshmen grades (GPA), the Pearson Product Moment Correlation was used. ANOVA was further used to analyze and interpret any existing relationship.

RESULTS AND DISCUSSION

More than half of the respondents (51.30%) were BSED majors and a little less than half (48.64%) were BEED majors. The majority of the respondents (80.93%) met the CHED's grade requirement of 85%. The rest (19.07%) of them did not meet the grade requirement. With the university's objective to increase enrollment, it has modified CHED's policy. According to the modification, high school graduates who wanted to enroll in Teacher Education courses could be accepted provided their high school GPA is not lower than 80%. Also, their grade in English subject should not be lowered of that same percentage. The revised admission policy has been followed for the past years until 2013 due to increased in enrollment. The university has been strictly following the CHED regulating policy.

Findings revealed that 19.07% and 25.68% of respondents in both semesters respectively were performing high. Additionally, 66.54% and 65.37% were averagely performing in both semesters respectively. The rest were performing low (14.39% and 8.95% respectively in both semesters). Tables 1 and 2 presented the distribution of the students' academic performance in 1st and 2nd semesters.

Table 1. Academic performance of respondents in college during the first semester

1st Semester	High	Average	Low	Total
Respondents who got 85% and up high school GPA	48	135	25	208
Respondents who got below 85% high school GPA	1	36	12	49
Total	49	171	37	257
	X_c^2= 13.58*S	*df* = 2	X^2_{tab} *a* = .05 = 5.99, .01 = 9.21	

Legend: College GPA Qualitative Description: 1.00 – 1.75 – High; 2.00 – 2.50- Average; = 2.75 and below

Table 2. Academic performance of respondents in college during the first semester

2nd Semester	High	Average	Low	Total
Respondents who got 85% and up high school GPA	65	129	14	208
Respondents who got below 85% high school GPA	1	39	9	49
Total	66	168	23	257
	X_c^2= 24.77*S	*df* = 2	X^2_{tab} *a* = .05 = 5.99, .01 = 9.21	

Legend: College GPA Qualitative Description: 1.00 – 1.75 – High; 2.00 – 2.50- Average; = 2.75 and below

Astin and Antonio (2012) acknowledged that people would have a notion that those who had the best grades in high school would perform better in college compared to those who had lower grades. However, what they argued was, it did not also mean that high performers during high school would learn or develop their talents more in college than low performers. They also considered that students who got mediocre grades in a particular course could also be learning just like students who got the highest grades.

The Chi – square test revealed no significant relationship between parents' income and respondents' academic performance in both semesters. It means that parents' income either high or low, has no effect at all in getting high or low grades among the respondents. This was supported by the study of A. Singh and J. P. Singh (2014) that socio-economic status of parents did not play a significant role in the educational performance of students. Those students who belonged from higher income families would tend to take high degree course compared to those who belonged from poor families. Thus, students who belonged to poor families would only choose inexpensive degree course. The private institutions which offered high degree courses were enrolled only by the students coming from the rich families and poor families wherein tuition fees were paid by the government and private sectors through scholarship grants.

The respondents of the study came from the poor families with an average monthly income of PhP 9,752.92 (USD 208.76) only. It could be possible that some of the students were also funded by their well-off relatives, siblings, and employees (working or self-supporting students). In addition, most parents borrow or lend money for their son's or daughter's college education expenses.

Moreover, individuals coming from low-income family believed that having a college degree is a way out of poverty (Institute for Higher Education Policy, 2010).

Table 3. Relationship between parents' income and respondents' academic performance (1st and 2nd sem)

1st sem	High	Average	Low	Total
High	26	85	18	129
Low	21	87	20	128
Total	47	172	38	257
	X_c^2= 0.67*ns	*df* = 2	X^2_{tab} *a* = .05 = 5.99,	.01 = 9.21
2nd sem				
High	32	90	13	135
Low	33	74	15	122
Total	65	164	28	257
	X_c^2= 0.63*ns	*df* = 2	X^2_{tab} *a* = .05 = 5.99,	.01 = 9.21

Respondents' household size ranges from three to fourteen members with an average size of seven members per family. Table 4 showed the relationship of the respondents' academic performance and their household size. Majority of them were having an average performance in both semesters (66.92% & 63.81%, respectively). The Chi – square test revealed no significant relationship between family household size and freshmen students' academic performance in both semesters. It implies that either the respondents has bigger or smaller household size, their chances of having high or low grades were the same. The findings showed remarkable result since it contradicted Downey's (1995) study.

Table 4. Relationship between family household size and respondents' academic performance in both semesters

1st sem	High	Average	Low	Total
High	28	89	18	135
Low	20	83	19	122
Total	48	172	37	257
	X_c^2= 0.92*ns	*df* = 2	X^2_{tab} *a* = .05 = 5.99,	.01 = 9.21
2nd sem	High	Average	Low	Total
High	32	90	13	135
Low	33	74	15	122
Total	65	164	28	257
	X_c^2= 1.08*ns	*df* = 2	X^2_{tab} *a* = .05 = 5.99,	.01 = 9.21

Results also showed (See Table 5) that parents' educational attainment has no influenced on the respondent's academic performance in both semesters. The Chi – square test of relationship showed no significant result. These findings remarkably connoted that freshmen Education students might have equal chances of having high or low academic performance regardless of their parent's educational background. Again, this result has refuted several studies that cited parent's educational attainment affected college performance. Moreover, Kainuwa, and Yusuf (2013) acknowledged that it was the parents' positive relationship to their children that could make a difference to their education. Either their parents were literate or not, they were the ones who could emphasize the essence of education.

Table 5.Relationship between parents' educational attainment and freshmen education students' academic performance in both semesters

1st sem	High	Average	Low	Total
High	28	89	18	135
Low	20	83	19	122
Total	48	172	37	257
	X_c^2= 0.92*ns	*df* = 2	X^2_{tab} *a* = .05 = 5.99,	.01 = 9.21
2nd sem	High	Average	Low	Total
High	32	90	13	135
Low	33	74	15	122
Total	65	164	28	257
	X_c^2= 0.06*ns	*df* = 2	X^2_{tab} *a* = .05 = 5.99,	.01 = 9.21

The test of the relationship between the respondents' high school GPA and college GPA showed a moderate inverse relationship in both semesters (See Table 6). The results indicated that high school GPA was a moderate indicator of the students' academic performance in college. Therefore, lower GPA in high school means lower GPA in college. ANOVA analysis showed a significant linear relationship in both BEED and BSED majors at 1% level of significance. It means that respondents academic performance in college were predicted by their high school GPA.

High school GPA matters a lot. The higher high school GPA, the better a student performs academically in school. Thus, higher high school GPA was a good indicator to determine the students' academic performance in college (Alhajraf & Alsfour, 2014).

Furthermore, the Minnesota Office of Higher Education (2007) found a similar result of this study. According to them, the most reliable predictor of student success in college was the academic preparation of students in high school. They explained that doing well rigorously in core academic subjects in high school more likely scored higher on standardized tests and college entrance exams. These kinds of students were participative and thus, succeed in college.

Table 6. Relationship of respondents' high school GPA and college GPA in two semesters

Variable	First Semester	Second Semester	Relationship
SY 2012 – 2013			
Over All			
All 1st year sample	rxy = - 0.55	rxy = - 0.52	Moderate
BEED	rxy = - 0.73	rxy = - 0.62	High & moderate
BSED	rxy = - 0.52	rxy = - 0.51	Moderate

Table 7 showed that nearly one-fourth (24.55%) of the respondents claimed that tutorials were beneficial in their academic performance. Garcia and Al-Safadi (2014) agreed that this was the most effective means of intervention technique to improve student's grades in college. Tutorials were used to help students cope with the subjects they find hard to understand during class hours. It was also encouraged that tutorial classes should be in different locations wherein students feel comfortable. Quiz shows (21.01%) was effective as well according to the respondents. During quiz show, it makes the students interested and attentive throughout the show. They enjoy and at the same time learn something new.

Table 7. Activities implemented by the university to improve academic performance of freshmen education student

Variable	Frequency	Percent
Tutorials	63	24.55
Quiz shows	54	21.01
Seminars	29	11.28
Psychological Test/Exam	25	9.72
Freshmen Day/Orientation	19	7.43
Total	257	100.00

Third in the rank as effective activity implemented by the university to improve academic performance of freshmen Education students is seminars (11.28%). Seminars are utilized to achieve certain goals such as assisting students during their

adjustment period to the college environment, supporting students in enhancing their academic performance, and offering orientation to the university's facilities and resources (Meyers, 2003). Kluepfel (1994) also asserted that seminars could motivate students to engage various activities that the institution values a lot.

Psychological test/exam was fourth in rank (9.72%) as beneficial to the students. Many colleges and universities have benefited psychological tests in admission decisions (National Association for College Admission Counseling, 2008). However, psychological test in VSU is only utilized as career guidance for the students to verify if the degree they pursue is in line to their personality, skills, intelligence, behavior, etc. After obtaining the results of psychological test, the University Student Services Office (USSO) will give them a career guidance counsel regarding the results.

Ranked fifth is the freshmen day/orientation (7.43%). According to Robinson, Gaw, and Burns (1996), orientation programs promote confidence among newly enrolled students that they have chosen the appropriate or even the best institution that might lead them to a successful college experience. Freshmen day/orientation programs could establish students' realistic expectations and integrate them into the campus' culture. This could help them begin planning ahead their professional development.

CONCLUSION

Based on the results of the study, it was concluded that CHED's regulating policy was indeed effective in accepting students who want to enroll in teacher education program. Almost one-fourth of the students were performing high in both semesters. Also, more than half of them were performing averagely in both semesters. Moreover, the respondents' parents' income, educational attainment, and household size have no significant relationship to their academic performance in high school and college. Those results negated what previous studies found out that students whose parents were equipped socially, educationally, and economically foster a high level of achievement in their children (Considine & Zappala, 2002). Moreover, the college enrollment rates varied significantly with the parents' educational background. If parents have high educational attainment so did the students' level of interest in higher education (Susan, 2011).

On the other hand, high school GPA has a significant relationship with the respondents' academic performance in college. It means that high school GPA was a good predictor of one's performance in college. Similar with the previous

studies of Niu and Tienda (2009) which suggested that high school GPA is a better determinant of college academic performance compared to a standardized test scores. Nonetheless, the disadvantage of correlations between high school GPA and college GPA was that it could not tell how much or how well different kinds of students have learned. It could not tell how much talent enhancement different students has shown. Correlations could not say anything either how much learning or has been any learning at all occurred (Astin & Antonio, 2012).

It was also revealed that VSU has implemented several activities to improve students' academic performance such as tutorials, quiz shows, seminars, psychological test and freshmen orientation.

TRANSLATIONAL RESEARCH

The findings of this study supported CHED's regulating policy in accepting students taking Teacher Education degree. It is therefore, recommended that universities and colleges should strictly accept students who have high school GPA of 85% and above to be enrolled in Teacher Education program. With this, they can ensure that they would be able to produce quality and competent teachers. Additionally, VSU should give emphasis on tutorials since students considered it beneficial to their academic performance. Moreover, the university should either improve intervention programs that are the least beneficial to students such as group studies, conferences, etc. or propose other learning enhancement programs. Lastly, retention program should also be considered to maintain the number of students admitted if in case there is a decrease in enrollment in the program.

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