

## Senior High School Background and GPA of the Education Students in a State University in the Philippines

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**Abstract:** The study investigated the Senior High school Background and the GPA of Education students in a State University in the Philippines. The study utilized the Descriptive Correlational method. The study respondents are the one hundred sixty-three incoming third-year education students with a specialization in Mathematics, Home Economics, and General education. Moreover, the study revealed that high school academic achievement is the most common significant variable that positively impacts their college GPA among the three groups of education students. In addition, the study found a negative association between the GPA of education students major in mathematics and their Senior High School Strand. It is concluded that senior high school academic achievement is still the best indicator of college GPA. It is recommended that the college/department admission policy emphasize and give more consideration to the student's prior academic performance except for passing the university/department entrance examination.

**Keywords:** GPA, Senior High School Background, Senior High School Strand, Academic achievement, type of school.

### 1. Introduction

The Philippine Educational System is like a boat sailing though not in the water but with different routes of changes and challenges. It follows the educational fate of other countries that pass through various stages of development and changes depicted in the various epoch of academic progression (De Guzman, 2003).

The Department of Education in the country is almost one hundred years old now. It has grown to become one of the enormous bureaucracies, if not the largest government agency in the country. Every year, school enrollment tremendously increases due to the growing school-age population and the high value of the Filipinos towards education.

With this development, the department also faces many challenges and issues, such as an increase in dropped out rate. In fact, millions of young children are no longer in school. Yet, it could not stop them from doing their mandate to protect and promote all citizens' rights, to provide quality education at all levels across the country, and take appropriate steps to make such education accessible and equitable. The department continually searches for a new paradigm that would cater everyone, mainly the less fortunate and less able students; and meet the demands of the fast-growing and ever-changing society.

In 2011, the department of education made a significant leap in education to a new learning scheme – implementing the K + 12 Curriculum. This program offers a decongested 12-year program that gives students sufficient time to master skills and absorb essential competencies. It also allows the students to choose among three tracks, i.e., Academic; Technical-Vocational-Livelihood; and Sports and Arts.

In light of these changes, most Higher Education Institutions (HEI's), including State Universities and Colleges (SUC), have changed their path. Senior high school strands are now included in the guidelines for the policy admission in the college department. If their senior strands are aligned to the course, they will be enrolling. Graduates of Science, Technology, Engineering and Mathematics (STEM) are given preference to enroll in courses related to Sciences and Mathematics. In contrast, graduates of Accountancy, Business and Management (ABM) strand have prioritized taking up courses related to finance and other business-related courses. On the other hand, graduates of Humanities and other Social Sciences (HUMS) are encouraged to take courses related to education, Philosophy, Arts, and other Sciences. While those General Academic Subject (GAS) strand and Technical, Vocational and Livelihood (TVL) strand graduates are allowed to enroll, some institutions require them to undergo bridging program before formally proceeding to engineering courses, sciences, mathematics, accountancy, and the like. Yet this policy, according to Tupas et al. (2019), is a waste of time, money, and efforts for both teachers and students.

The rationale of this policy is to make sure college students will have a greater chance to succeed academically and professionally in their chosen field. In line with this, the Department of Science and Industry (DOST) also makes some changes. Through their scholarship program in which part of the new implementing guidelines to avail the program is all those senior high school graduates belonging to STEM strand are automatically qualified to take the scholarship examination while only the top five percent (5%) graduates of each of the remaining strands may be allowed to take.

For quite a long, practitioners, educators, and policy-makers are interested in researching for the academic success of the college student population (Schmitt et. al, 20007). Musthtaql et al. (2012) expressed that the student's academic performance has something to do in producing the best quality graduates who would become great leaders and manpower of the country. Thus, academe and researchers have conducted an investigation in different disciplines regarding variables affecting college student's academic performance. But, Musthaql et al. (2012) said most of the previous studies conducted about academic performance the variables are issues like gender difference, teacher's education and teaching style, school environment, economic facto,r and family background.

Additionally, Betts, Julian & Morell Darlene (1999) studies family background (family income, race), resources of the high school that the student attended before enrolling in a university, and the demographic environment in which the student attended high school as determinants of a general weighted average of college students. On the other hand, Schmitt et al (2007) studies focused on the biographical data and situational judgment measures, SAT and American College Test scores and high school grade point average as variables to predict the students' college. In addition, Fleming, Jacqueline (2002) also studied SAT as a predictor of academic performance. House, Daniel & Prion Susan (1998) also examined predictors of achievement in college. The variables included are educational background but focused more on students' attitudes as a motivating factor for English achievement.

On the other hand, Aldin, Nayebzadeh & Heirany (2011) study about the relationship between the prior educational success of students and the academic performance, they pointed out that there is a significant relationship between the prior educational success of students and their educational performance. Beauvais, Stewart, and Denisco (2013) studied the relationship between emotional intelligence, psychological empowerment, resilience, spiritual well-being, and academic success; results show a significant relationship between spiritual well-being, empowerment, resilience and academic success. Another study is conducted by Garcia et. al (2015), the relationship between college academic performance and grit of the students. The results show a direct relationship between the level of grit and college academic performance. As the higher the level of grit, there is the tendency for the students to increase their grades. Alipio (2020) conducted a study of academic performance of college freshman using psychological variables and expectancy value-belief to outcome-based education findings; reveal that help-seeking, self-esteem, self-efficacy, and social support have a positive influence on the expectancy-value beliefs and academic performance. Thus, several factors that may affect college academic performance are already investigated.

The senior high school curriculum in the country has been sailing in the Philippine educational field since 2012. Its first batch of students graduated last March 2018, and most of them, if not all are now entering third-year college. Most likely, many of them are now taking a course not their dreams but related to their senior high school strand, while others are forced to undergo a bridging program just to take up their dream courses. Thus, it is quite interesting to investigate if the senior high school background (type of school, academic achievement, senior high school strand) of the students has something to do with their college grade point average. Considering k +12 curriculum is designed to increase students' competencies in different areas of discipline. The researchers believe that this study will contribute to the new body of knowledge because the product of the Senior High School program has just ducked into higher education institutions (HEI's) port. Then, the senior high strand of the incoming first college students is now part of the guidelines in the admission policy. This policy could indirectly deprive many graduates for their opportunity to reach their dream courses and discriminatory in nature, if not depriving their rights to education.

The study aimed to determine the relationship between senior high school background and academic performance of third-year college education students. Specifically, the study sought to answer the following queries:

1. What is the Senior high school profile of the respondents in terms of:
  - 1.1 Type of school;
  - 1.2 High school academic achievement;
  - 1.3 Senior high school strand;
2. What is the grade point average (GPA)of the respondents in their first two years in college?
3. Is there a significant relationship between the profile of the respondents and college general weighted average?

## 2. Materials and Method

This chapter described the planning episode of this research study. This comprised of a thorough discussion on the research design, research participants, sampling design and the research environment.

## Research Design & Locale

The study used a descriptive-correlational research design to investigate the relationship between senior high school background (type of school, academic achievement, senior high school strand) and college academic performance of the incoming third-year education students in a State University in Cebu, Philippines.

### Sampling Techniques/Sampling Frame

The purpose of sampling is to identify the best possible representation among the target population. In this case, the profile of the entire one hundred sixty-three (163) incoming third-year education students in Cebu Technological University, Naga extension campus for academic 2020-2021. Seventy-two (72) of them taking Bachelor of Elementary Education, while sixty-two (62) taking up Bachelor of Technology and Livelihood Education major in home economics and the rest are taking Bachelor of Secondary Education major in Mathematics which is composed of twenty-nine (29) students. Their records are now archived in the office of the university's registrar were analyzed on this study.

### Limitations of the Study

The study is limited only to the profile of the incoming third-year college education students of an extension campus of a state university in Cebu, Philippines. Moreover, the variables in this study limit only to the types of high school (private or public), high school academic performance (honors or none), and Senior high school strand, and college GPA.

### Instruments

The main instruments used to answer all questions in this study were the college transcript of records (TOR), and high school form 137/138 of the one hundred sixty-three students. It is because this study used documentary analysis, review of archival data to determine the relationship between the above -mentioned variables. These documents are placed in the registrar's office as keeper of the students' official records.

### Data Gathering Procedure

After securing all the necessary permits, the researchers asked the support personnel through the University Registrar's office that provided us the required data and documents; started the documentary *analysis/review or archival technique* on the relevant information for the study.

After collating all the data, it was analyzed using descriptive and inferential statistics using statistical software for social science (SPSS) for quantitative analysis and after which presented findings.

## 3. Data Analysis

Used documentary Analysis/Review or Archival Technique to determine the significant relationship between senior high school background and college academic performance of the education students. Frequency and percentage were used to present the respondents' demographic that includes type of school, high school academic achievement, and senior high school strand. On the other than, Pearson r correlation was used to analyze the relationship between type of school, high school academic achievement, and college academic performance of the students.

**Table 1. Profile of the Respondents**

Group of students	Type of Senior high School		SHS Achievement		Senior High School Strand					
	Private	Public	With honors	Non-Honors	STEM	ABM	HUMSS	GAS	TVL	OTHERS
BSEd major in Math	14	15	20	9	9	3	2	5	7	3
BEEEd	10	62	43	29	2	4	10	38	10	8
BTLEd major in H.E	16	46	33	29	1	2	8	25	21	5

Total	40	123	96	67	11	9	20	68	39	16
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**Legend:**

**STEM** - Science, Technology, Engineering, and Mathematics

**ABM** - Accounting, Business and Management

**HUMSS** - Humanities and Social Sciences

**GAS** - General Academic Strand

**TVL**- Technical-Vocational-Livelihood

As shown in Table 1, most education students graduated from public high school, which comprises 75.46% of the total respondents. It informs us that majority of the education students come from lower-income to middle-income families. Moreover, 58.89% or ninety-six (96) of them finished their senior high as academic achievers range from honors, with high honors or even with highest honors. On the other hand, 6.7% of students belong to STEM strand, while 5.52% belong to ABM, 12.26% come from HUMMS, while those belonging to TVL strand comprise 23.92%, the majority of them belongs to GAS which comprises of 41.71%. Thus, most incoming third-year students belong to HUMSS and the smallest number of participants come from STEM. It informs us that the likelihood of HUMSS strand graduates taking up education courses is higher than that of the other strands.

**Table 2. Correlation of the profile and College GPA of Education Student major in Mathematics**

	Pearson's r	P value	Decision	Interpretation
Type of senior high school	-.439	.792	Accept the null hypothesis	No Significant Relationship
Senior high school academic achievement	.372*	.048	Reject the null hypothesis	Significant Relationship
Senior high school strand	-.366*	.017	Reject the null hypothesis	Significant Relationship

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

As presented in Table 2 above, the academic achievement and senior high school track/strand have a significant relationship to the college GPA of the education Mathematics major students. It means that their college performance is not due to chance but because of their background in high school in which their skills and academic potentials are built that makes them ready to face the challenges in college education. Thus, the better their academic achievement in senior high school, the higher the likelihood of performing better academically in college. However, the association between senior high school strand and GPA is negative. Those students whose background and foundation in senior high school are related to Mathematics did not perform better academically than those students belong to other strands.

**Table 3. Correlation between the profile and College GPA of BEEd education students**

	Pearson's r	P value	Decision	Interpretation
Type of senior high school	-.244*	.040	Reject the null hypothesis	Significant Relationship
Senior high school achievement	.312**	.008	Reject the null hypothesis	Significant Relationship
Senior high school strand	.031	.800	Accept the null hypothesis	No Significant Relationship

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

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

As shown in Table 3 above, the type of school and senior high school strand of the Bachelor of Elementary Education students had a significant correlation to college academic performance. It means that the physical facility condition and equipment, faculty, and school resources where they graduated and their academic performance in senior high schools contribute to college academic performance. Thus, the better the quality of the

resources (physical facility conditions, equipment, faculty, etc.) of their previous school and the better their prior academic performance, the greater the probability of performing academically well in college.

**Table 4. Correlation of the profile and College GWA of Education students major in Home Economics**

	Pearson's r	P value	Decision	Interpretation
Type of senior high school	.072	.583	Accept the null hypothesis	No Significant Relationship
Senior high school achievement	.387**	.002	Reject the null hypothesis	Significant Relationship
Senior high school strand	.075	.567	Accept the null hypothesis	No Significant Relationship

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

As displayed in Table 4 above, the senior high school academic achievement is significantly correlated/is a substantial factor to their college GPA. It means that those achievers in high school will likely perform better academically in college. Thus, the better their academic achievement, the greater the possibility of getting better GWA in college.

**Table 5. Correlation between the profile of the respondents and College GWA of Education students**

	Pearson's r	P value	Decision	Interpretation
Type of senior high school	-.043	.591	Accept the null hypothesis	No Significant Relationship
Senior high school achievement	.372***	.000	Accept the null hypothesis	No Significant Relationship
Senior high school strand	-.043	.588	Reject the null hypothesis	Significant Relationship

\*\*\*Correlation is significant at the 0.001 level (2-tailed)

Table 5 above displayed the correlation between the senior high background of the education students and college grade point average (GPA). It reveals that among the factors under investigation, the students' prior academic achievement in high school is very strong/ has a substantial relationship to their college GPA. Thus, the better their academic achievement background, the higher the likelihood of getting a better GPA in college.

#### 4. Discussion

The academic institution never stops its quest to help students perform well academically in school, particularly in college, and eventually produce quality and successful graduates. Thus, several studies were conducted to determine and identify factors that may contribute to the college academic performance of the students so it can be used as the base line for intervention programs and policy-making principles. The result of this study gives some noticeable and exciting findings among the variables under investigation. It is found out that high school academic achievement among the three groups of education students is the most common variable that significantly gives a positive impact to their college GPA. It entails that their pre-college skills and intellectual abilities are quite strong enough which help them face and handle the academic challenges they might be facing in college. It implicates that the basic education institution, to some extent, helped hone their skills and intellectual abilities, which help them cope with the academic challenges in college. This result is consistent with Byrne and Flood (2008) findings that prior academic achievement is a very essential factor that is significantly associated with the college academic performance of the first-year accounting students. Further, Aldin et al. (2011) described that prior educational success of the students has a positive impact on their post-graduate studies academic performance. Moreover, the result supports the finding of Zwick, Rebecca, and Sklar, Jeffrey (2005) and Geiser

and Santelices (2007) that High School GWA is a solid predictor to college grades. Likewise, Sawyer (2010) and Bridgeman et al. (2008) articulated that performance in senior high school is a valid predictor of undergraduate academic performance and provides an accurate prediction of future academic performance.

Yet, the study also revealed the negative association between senior high strand and the GPA of education students major in Mathematics. It discloses student's foundation in Mathematics as the goal in Science, Technology, Engineering, and Mathematics strand has a negative impact on their college GPA. It tells us that graduate of STEM strand is not an assurance to have better mathematical ability than other strands. Moreover, it implies that STEM-strand graduates are not guarantee to perform better academically in engineering and other mathematics related courses than those of their counterparts. On the other hand, Alipio (2020) the academic adjustment of the college student is a much better predictor of academic performance than the senior high school strand. There is only a moderating effect of SHS strand on college academic performance of students. This finding is also consistent with the conclusions of Greene and Byler (2004) that high school agricultural course background has a limited impact on college grades of agriculture students.

In like manner, the finding suggests that the basic education curriculum will have to strengthen the senior high school curriculum through efficient and effective monitoring of the program implementation. Implement strictly the policies for each program to obtain and acquire the desired minimum learning competencies especially in the STEM strand whose rationale is to have a strong foundation in Mathematics and Science. Moreover, strengthen and improve the school's resources (both human and materials) to obtain program's desired outcomes.

However, it should be noted that in this study, there is a limited number of participants that belong to the STEM strand that might affect its results. Yet, the finding offers a very significant and critical insight to the policy-makers, school officials, and academicians to consider the formulation of college department admission policy across the country.

## 5. Conclusion

Policies play an important role in the institution because it serves as rules and procedures to achieve the standard of quality for learning and safety, expectations and accountability. Yet, the study's outcome sends a very important message to the school authorities, policy-makers, and college department heads that high school academic achievement of the student is still the most important indicator of college GPA. Thus, college/department admission policy emphasize and gives more consideration to the student's high school academic performance than any other factors except for passing the university/department entrance examination.

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