Curriculum Exits of Senior High School Graduates of Dulag National High School: Mathematical Modeling Approach

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Abstract: The purpose of this study was to identify if there exists a significant linear relationship between the curriculum exits of the senior high school graduates and their sex, age at the time of graduation, track/strand, and SHS final rating. This research utilized the quantitative research approach, particularly Descriptive-Correlational research design. The population studied were the 556 senior high school graduates of Dulag National High School, a public high school at the Schools Division of Pangasinan 1. Using simple linear regression, it was found that there is a significant linear relationship between the SHS graduates from 2018 to 2021 who pursued higher education and employment and the four independent variables (sex, age, track/strand, and final rating) which have been tested individually. However, entrepreneurship and middle level skills development has a significant linear relationship with only two independent variables: track/strand and SHS final rating for entrepreneurship; and age graduated and SHS final rating for middle level skills development. Moreover, using multiple linear regression revealed that the four senior high school curriculum exits have a significant linear relationship with sex, age graduated, track/strand, and SHS final rating when tested all at once. This means that the graduates' sex, age at the time of graduation, track/strand, and final rating have an either positive or negative impact on the curriculum exit paths that they pursue.

Keywords: Curriculum Exits, K to 12, Senior High School, Mathematical Modeling, Higher Education, Employment, Entrepreneurship, Middle Level Skills Development

1. Introduction

1.1 Background of the Study

Before the implementation of the K-12 program, the Philippines has one of the world's shortest schooling systems for a long time, consisting only of 6 years of elementary education and 4 years of high school education. Although Filipinos are known for their worldwide competitiveness, our existing educational system prevents them from being even more competitive [1]. The ten-year Philippine basic education system has become a barrier for Filipino employees working overseas. Many Filipino professionals wish to work overseas with hopes of uplifting their families from poverty, yet they frequently land into jobs that are unrelated to the qualification they earned in the Philippines [4].

This is just one of the many reasons why the Enhanced Basic Education Act of 2013, also known as K-12 Act, was established. It aims to provide sufficient time for mastery of concepts and skills, develop lifelong learners, and prepare graduates for tertiary education, middle-level skills development, employment, and entrepreneurship [5]. These are the four curriculum exits of senior high school in which the Grade 12 students may choose after graduation. Higher Education is one of the curriculum exits which SHS learners may opt to pursue after graduation leading to an associate or bachelor's degree. Employment is one of the curriculum exits which SHS learners may opt to pursue after graduation leading to a paid work or job. Entrepreneurship is one of the curriculum exits which SHS learners may opt to pursue after graduation leading to developing, organizing and managing one's own business venture. Middle Level Skills Development is one of the curriculum exits which SHS learners may opt to pursue after graduation leading to further training in technical-vocational education [6].

In a study conducted by Aling et.al [2], it was found that majority of the Grade 12 graduates pursued higher education, several of them landed jobs, and few prioritized entrepreneurship and middle level skills. This is somewhat similar to the result of the study conducted by Bacaling [3] to the graduating SHS students of Sta. Cruz National High School in Davao Del Sur. His study revealed that majority of the senior high school graduating students were geared towards pursuing their studies to higher education (Kolehiyo), while some students wanted to find a job after graduation (Trabaho). Despite having career guidance to schools to orient students about what to take after graduation, some students still can't decide which path to choose. This is a reason why job mismatch is still prevalent nowadays.

Although studies about identifying the curriculum exits of senior high school graduates were already conducted, these studies do not use mathematical modeling approach. Particularly, they do not include examining if there is a significant linear relationship between the curriculum exits and the profile variables of the respondents such as sex, age, track/strand, and SHS final rating.

1.2 Statement of the Problem

This study aimed to predict the Curriculum Exits of Senior High School graduates of Dulag National High School. Specifically, this study aims to
1. Determine the trend of the Curriculum Exits of Senior High School graduates of Dulag National High School

from 2018 to 2021.

2. Find if the Curriculum Exits of Senior High School graduates of Dulag National High School has a significant linear relationship with the following variables:
   a. Sex only
   b. Age graduated only
   c. Track/Strand only
   d. SHS Final Rating only
   e. Sex, age graduated, track/strand, and SHS final rating all together

1.3 Hypothesis
There is no significant linear relationship between the Curriculum Exits of the Senior High School Graduates of Dulag National High School and their sex, age graduated, track/strand, and final rating.

1.4 Scope and Delimitation
This research study focused on all SHS graduates of Dulag National High School considering their age, sex, track/strand, SHS final rating, and their Curriculum exit. However, it was delimited to the four batches of SHS graduates of Dulag National High School (Batch 2018, 2019, 2020, and 2021).

2. Design and Methodology
This study utilized the Quantitative Research approach, particularly the Descriptive-Correlational research design in answering the research problems. The quantitative results from the data gathered described the trend of the Curriculum exits of SHS graduates of Dulag National High School from 2018-2021. Moreover, the data gathered were used to determine whether or not there is a significant linear relationship of these data and the curriculum exit paths of the senior high school graduates.

The respondents of this study are the 556 SHS graduates of Dulag National High School in the last four batches (batch 2018, 2019, 2020, and 2021). Dulag National High School, located at Barangay Dulag, Binmaley, Pangasinan, is a rural public high school under the Pangasinan 1 Division. There are two senior high school tracks being offered in the aforementioned school, namely: Academic (HUMSS strand) and Technical-Vocational-Livelihood (TVL) tracks (ICT, Home Economics, and Industrial Arts strands).

The data such as sex, age, and track/strand of the graduates were gathered by accessing the LIS account of the school. Their SHS final rating were gathered from the registrar. Before gathering these data, the researcher asked the permission of the Principal through a formal letter for him to be allowed to gather the needed information. Once approved, the researcher tapped the school ICT coordinator who have access to the LIS account of the school to download the School Form 1 of SHS graduates batch 2018, 2019, 2020, and 2021 and asked to send to the researcher those copies via Google Drive or Messenger. Afterwards, the researcher asked the help of the school registrar to give him a copy of the SHS final rating of all graduates from 2018 to 2021. For the curriculum exits of the graduates, the researcher asked one SHS graduate per section in each batch to create a poll on their FB Messenger group chat about what they pursued

after graduation (Higher education, Employment, Entrepreneurship, and Middle Level Skills Development). To those graduates who are no longer member of the GC, the researcher messaged them individually via FB Messenger and asked them about their curriculum exits.

The statistical software used in analyzing the data is Microsoft Excel. The trend of the curriculum exits of the senior high school graduates of Dulag National High School from 2018 to 2021 were generated thru MS Excel, as well as the time series models. To identify whether there is a significant linear relationship between the curriculum exits and the graduates' sex only, age graduated only, track/strand only, and final rating only, simple linear regression was used. On the other hand, multiple linear regression was utilized to identify whether there is a significant linear relationship between the curriculum exits and the graduates' sex, age graduated, track/strand, and final rating all together.

3. Result and Discussion

3.1 Trend of the Curriculum Exits of the SHS Graduates of Dulag National High School from 2018 to 2021

3.1.1 Percent Distribution of the Curriculum Exits of SHS Graduates of Dulag NHS from 2018 to 2021

Table 1: *Percent Distribution of the Curriculum Exits of SHS Graduates of Dulag NHS from 2018 to 2021*

YEAR	Higher Education	Employ-ment	Entrepreneur-ship	Middle Level Skills Development
2018	0.53	0.36	0.08	0.03
2019	0.49	0.38	0.09	0.04
2020	0.42	0.45	0.08	0.05
2021	0.42	0.40	0.10	0.08

Table 1 shows the percent distribution of the curriculum exits of senior high school graduates of Dulag NHS from 2018 to 2021. Based on the table, it is evident that the percentage of SHS graduates from 2018 to 2021 who pursue higher education is decreasing. On the other hand, the percentage of graduates who pursue middle level skills development is increasing. However, the percentage of those who pursue employment and entrepreneurship are fluctuating.

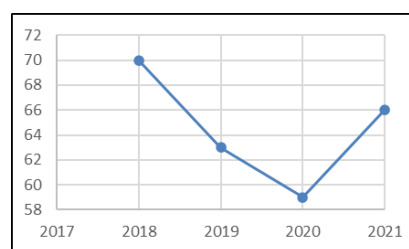#### 3.1.2 Trendline of SHS Graduates of Dulag NHS from 2018 to 2021 who pursued Higher Education

Figure 1: *Trendline of SHS Graduates who pursued Higher Education*

Figure 1 shows the trendline of the SHS graduates of Dulag NHS who pursued Higher Education. Based on the figure, the number of SHS graduates who pursued higher education is decreasing from 2018 to 2020 and eventually increased in 2021. Batch 2018 has the greatest number of graduates who pursued higher education (70), followed by batch 2021 (66) and batch 2019 (63). The batch with the least number of graduates who pursued college is batch 2020 (59).

3.1.3 Trendline of SHS Graduates of Dulag NHS from 2018 to 2021 who pursued Employment
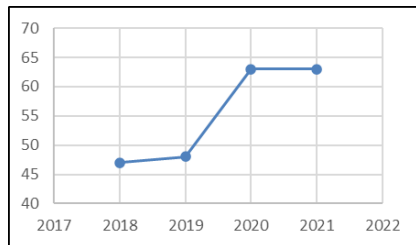

Figure 2: Trendline of SHS Graduates who pursued Employment

Figure 2 shows the trendline of the SHS graduates of Dulag NHS who pursued Employment. Looking at the figure, it is evident that the number of SHS graduates from 2018 to 2021 who pursued employment is increasing. Batch 2020 and 2021 have the same number of graduates who pursued employment (63), followed by batch 2019 with 48 and batch 2018 with 47.

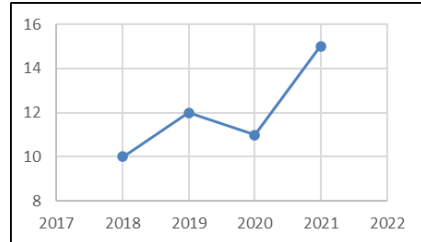### 3.1.4 Trendline of SHS Graduates of Dulag NHS from 2018 to 2021 who pursued Entrepreneurship

Figure 3: Trendline of SHS Graduates who pursued Entrepreneurship

Figure 3 shows the trendline of the SHS graduates of Dulag NHS who pursued Entrepreneurship. Based on the figure, the number of SHS graduates who pursued entrepreneurship is fluctuating. The batch with the majority of graduates who pursued entrepreneurship is batch 2021 (15), followed by batch 2019 (12), batch 2020 (11), and batch 2018 (10).

3.1.5 Trendline of SHS Graduates of Dulag NHS from 2018 to 2021 who pursued Middle Level Skills Development
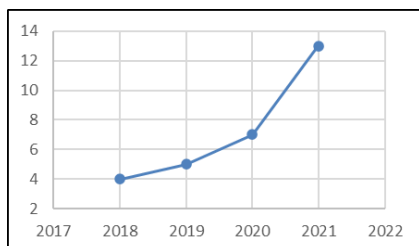

Figure 4: Trendline of SHS Graduates who pursued Middle Level Skills Development

Figure 4 shows the trendline of the SHS graduates of Dulag NHS who pursued Middle Life Skills Development. The number of SHS graduates who pursued middle level skills development is increasing. The highest number of graduates who pursued such is batch 2021 with 13, followed by batch 2020 with 7, batch 2019 with 5, and batch 2018 with 4.

3.2 Significant Linear Relationship Between the Curriculum Exits of SHS Graduates of Dulag NHS from 2018 to 2021 and the Profile Variables

3.2.1 Curriculum Exits of SHS Graduates and Sex

3.2.1.1 Higher Education and Sex

Table 2: Linear Regression Result of the SHS graduates who pursued Higher Education and their Sex

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.3780	0.0288	13.1230	0.0000
Sex	0.1805	0.0417	4.3257	0.0000

Multiple $R = 0.1808$ $R^2 = 0.0327$

Table 2 shows the linear regression result of the SHS graduates who pursued higher education and their sex. The model generated is $y = 0.3780 + 1805x$. As seen on Table 2, the p-value is less than 0.05 (p=0.0000). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued higher education and their sex. This means that a unit increase in the number of male graduates causes a 0.1805 increase in the number of those who will pursue higher education. The value of multiple R is 0.1808 which means that there is negligible correlation between the number of SHS graduates who pursued higher education and the sex of the graduates. The value of r-squared is 0.0327 which means that 3.27% of the values fit the model.

3.2.1.2 Employment and Sex

Table 3: Linear Regression Result of the SHS graduates who pursued employment and their Sex

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.4777	0.0283	16.8709	0.0000
Sex	-0.1682	0.0410	-4.1021	0.0001

Multiple $R = 0.1717$ $R^2 = 0.0295$

Table 3 shows the linear regression result of the SHS graduates who pursued employment and their sex. The model generated is $y = 0.4777 - 1682x$. As seen on Table 3, the p-value is less than 0.05 (p=0.0001). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued employment and their sex. This means that a unit increase in the number of male graduates causes a 0.1682 decrease in the number of those who will pursue employment. The value of multiple R is 0.1717 which means that there is negligible correlation between the number of SHS graduates who pursued employment and the sex of the graduates. The value of r-squared is 0.0295 which means that 2.95% of the values fit the model.

3.2.1.3 Entrepreneurship and Sex

Table 4: *Linear Regression Result of the SHS graduates who pursued entrepreneurship and their Sex*

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.0859	0.0165	5.2088	0.0000
Sex	0.0009	0.0239	0.0369	0.9706

Multiple $R = 0.0016$ $R^2 = 0.0000$

Table 4 shows the linear regression result of the SHS graduates who pursued entrepreneurship and their sex. The model generated is $y = 0.0859 - 0.0009x$. As seen on Table 4, the p-value is greater than 0.05 (p=0.9706). Therefore, we fail to reject the null hypothesis and conclude that there is no significant linear relationship between the number of SHS graduates who pursued entrepreneurship and their sex. This means that change in the independent variable (sex) do not cause change to the dependent variable (curriculum exit – entrepreneurship).

3.2.1.4 Middle Level Skills Development and Sex

Table 5: *Linear Regression Result of the SHS graduates who pursued middle level skills development and their Sex*

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.0584	0.0131	4.4759	0.0000
Sex	-0.0131	0.0189	-0.6948	0.4875

Multiple $R = 0.0295$ $R^2 = 0.0009$

Table 5 shows the linear regression result of the SHS graduates who pursued middle level skills development and their sex. The model generated is $y = 0.0584 - 0.0131x$. As seen on Table 5, the p-value is greater than 0.05 (p=0.4875). Therefore, we fail to reject the null hypothesis and conclude that there is no significant linear relationship between the number of SHS graduates who pursued middle level skills development and their sex. This means that change in the independent variable (sex) do not cause change to the dependent variable (curriculum exit – middle level skills development).

3.2.2 Curriculum Exits of SHS Graduates and Age at the time of Graduation

3.2.2.1 Higher Education and Age

Table 6: *Linear Regression Result of the SHS graduates who pursued Higher Education and their age at the time of graduation*

	Coefficients	Standard Error	t Stat	P-value
Intercept	2.1973	0.3106	7.0739	0.0000
Age graduated	-0.0948	0.0169	-5.5923	0.0000

Multiple $R = 0.2312$ $R^2 = 0.0534$

Table 6 shows the linear regression result of the SHS graduates who pursued higher education and the age when they graduated. The model generated is $y = 2.1973 - 0.0948x$. As seen on Table 6, the p-value is less than 0.05 (p=0.0000). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued higher education and the age when they graduated. This means that a unit increase in age causes a 0.0948 decrease in the number of those who will pursue higher education. The value of

multiple R is 0.2312 which means that there is negligible correlation between the number of SHS graduates who pursued higher education and the age when they graduated. The value of r-squared is 0.0534 which means that 5.34% of the values fit the model.

3.2.2.2 Employment and Age

Table 7: *Linear Regression Result of the SHS graduates who pursued employment and their age at the time of graduation*

	Coefficients	Standard Error	t Stat	P-value
Intercept	-0.5009	0.3109	-1.6109	0.1078
Age graduated	0.0491	0.0170	2.8956	0.0039

Multiple $R = 0.1221$ $R^2 = 0.0149$

Table 7 shows the linear regression result of the SHS graduates who pursued employment and the age when they graduated. The model generated is $y = -0.5009 + 0.0491x$. As seen on Table 7, the p-value is less than 0.05 (p=0.0039). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued employment and the age when they graduated. This means that a unit increase in age causes a 0.0491 increase in the number of those who will pursue employment. The value of multiple R is 0.1221 which means that there is negligible correlation between the number of SHS graduates who pursued employment and the age when they graduated. The value of r-squared is 0.0149 which means that 1.49% of the values fit the model.

3.2.2.3 Entrepreneurship and Age

Table 8: *Linear Regression Result of the SHS graduates who pursued entrepreneurship and their age at the time of graduation*

	Coefficients	Standard Error	t Stat	P-value
Intercept	-0.2166	0.1793	-1.2077	0.2277
Age graduated	0.0166	0.0098	1.6928	0.0910

Multiple $R = 0.0717$ $R^2 = 0.0051$

Table 8 shows the linear regression result of the SHS graduates who pursued entrepreneurship and the age when they graduated. The model generated is $y = -0.2166 + 0.0166x$. As seen on Table 8, the p-value is greater than 0.05 (p=0.0910). Therefore, we fail to reject the null hypothesis and conclude that there is no significant linear relationship between the number of SHS graduates who pursued entrepreneurship and the age when they graduated. This means that change in the independent variable (age at the time of graduation) do not cause change to the dependent variable (curriculum exit – entrepreneurship).

3.2.2.4 Middle Level Skills Development and Age

Table 9: *Linear Regression Result of the SHS graduates who pursued middle level skills development and their age at the time of graduation*

	Coefficients	Standard Error	t Stat	P-value
Intercept	-0.4798	0.1405	-3.4141	0.0007
Age graduated	0.0291	0.0077	3.7936	0.0002

Multiple $R = 0.1591$ $R^2 = 0.0253$

Table 9 shows the linear regression result of the SHS graduates who pursued middle level skills development and the age when they graduated. The model generated is $y = -0.4798 + 0.0291x$. As seen on Table 9, the p-value is less than 0.05 (p=0.0002). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued middle level skills development and their age at the time of graduation. This means that a unit increase in age causes a 0.0291 increase in the number of those who will pursue middle level skills development. The value of multiple R is 0.1591 which means that there is negligible correlation between the number of SHS graduates who pursued employment and the age when they graduated. The value of r-squared is 0.0253 which means that 2.53% of the values fit the model.

3.2.3 Curriculum Exits of SHS Graduates and Track/Strand

3.2.3.1 Higher Education and Track/Strand

Table 10: Linear Regression Result of the SHS graduates who pursued Higher Education and their track/strand

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.9279	0.0497	18.6699	0.0000
Track/strand	-0.1738	0.0171	-10.1426	0.0000

Multiple $R = 0.3957$ $R^2 = 0.1566$

Table 10 shows the linear regression result of the SHS graduates who pursued higher education and their track/strand. The model generated is $y = 0.9279 - 0.1738x$. As seen on Table 10, the p-value is less than 0.05 (p=0.0000). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued higher education and their track/strand. This means that a unit increase in the number of Academic/GAS graduates causes a decrease of 0.1738 in the number of graduates who will pursue higher education, a unit increase in the number of TVL/ICT graduates causes a decrease of 0.3476, a unit increase in the number of TVL/Cookery graduates causes a decrease of 0.5214, and a unit increase in the number of TVL/SMAW graduates causes a decrease of 0.6952 in the number of graduates who will pursue higher education. The value of multiple R is 0.3957 which means that there is low positive correlation between the number of SHS graduates who pursued higher education and the age when they graduated. The value of r-squared is 0.1566 which means that 15.66% of the values fit the model.

3.2.3.2 Employment and Track/Strand

Table 11: Linear Regression Result of the SHS graduates who pursued employment and their track/strand

	Coefficients	Standard Error	t Stat	P-value
Intercept	-0.0013	0.0498	-0.0257	0.9795
Track/strand	0.1494	0.0172	8.7002	0.0000

Multiple $R = 0.3467$ $R^2 = 0.1202$

Table 11 shows the linear regression result of the SHS graduates who pursued employment and their track/strand. The model generated is $y = -0.0013 + 0.1494x$. As seen on Table 11, the p-value is less than 0.05 (p=0.0000). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued employment and their track/strand. This means that a unit increase in the number of Academic/GAS graduates causes an increase of 0.1494 in the number of graduates who will pursue employment, a unit increase in the number of TVL/ICT graduates causes an increase of 0.2988, a unit increase in the number of TVL/Cookery graduates causes an increase of 0.4482, and a unit increase in the number of TVL/SMAW graduates causes an increase of 0.5976 in the number of graduates who will pursue employment. The value of multiple R is 0.3467 which means that there is low positive correlation between the number of SHS graduates who pursued employment and track/strand. The value of r-squared is 0.1202 which means that 12.02% of the values fit the model.

3.2.3.3 Entrepreneurship and Track/Strand

Table 12: Linear Regression Result of the SHS graduates who pursued entrepreneurship and their track/strand

	Coefficients	Standard Error	t Stat	P-value
Intercept	-0.0026	0.0302	-0.0850	0.9323
Track/strand	0.0333	0.0104	3.1992	0.0015

Multiple $R = 0.1347$ $R^2 = 0.0181$

Table 12 shows the linear regression result of the SHS graduates who pursued entrepreneurship and their track/strand. The model generated is $y = -0.0026 + 0.0333x$. As seen on Table 12, the p-value is less than 0.05 (p=0.0015). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued entrepreneurship and their track/strand. This means that a unit increase in the number of Academic/GAS graduates causes an increase of 0.0333 in the number of graduates who will pursue entrepreneurship, a unit increase in the number of TVL/ICT graduates causes an increase of 0.0666, a unit increase in the number of TVL/Cookery graduates causes an increase of 0.0999, and a unit increase in the number of TVL/SMAW graduates causes an increase of 0.1332 in the number of graduates who will pursue entrepreneurship. The value of multiple R is 0.1347 which means that there is negligible correlation between the number of SHS graduates who pursued entrepreneurship and track/strand. The value of r-squared is 0.0181 which means that 1.81% of the values fit the model.

3.2.3.4 Middle Level Skills Development and Track/Strand

Table 13: Linear Regression Result of the SHS graduates who pursued middle level skills development and their track/strand

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.0760	0.0241	3.1528	0.0017
Track/strand	-0.0089	0.0083	-1.0745	0.2830

Multiple $R = 0.0456$ $R^2 = 0.0021$

Table 13 shows the linear regression result of the SHS graduates who pursued middle level skills development and their track/strand. The model generated is $y = 0.0760 - 0.0089x$. As seen on Table 13, the p-value is greater than

0.05 (p=0.2830). Therefore, we fail to reject the null hypothesis and conclude that there is no significant linear relationship between the number of SHS graduates who pursued middle level skills development and their track/strand. This means that change in the independent variable (track/strand) do not cause change to the dependent variable (curriculum exit – middle level skills development).

3.2.4 Curriculum Exits of SHS Graduates and SHS Final Rating

3.2.4.1 Higher Education and SHS Final Rating

Table 14: Linear Regression Result of the SHS graduates who pursued Higher Education and their final rating

	Coefficients	Standard Error	t Stat	P-value
Intercept	-4.8102	0.3623	-13.2766	0.0000
SHS Final Rating	0.0629	0.0043	14.5754	0.0000

Multiple $R = 0.5265$ $R^2 = 0.2772$

Table 14 shows the linear regression result of the SHS graduates who pursued higher education and their SHS final rating. The model generated is $y = -4.8102 + 0.0629x$. As seen on Table 14, the p-value is less than 0.05 (p=0.0000). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued higher education and their SHS final rating. This means that a unit increase in the final rating causes a 0.0629 increase in the number of those who will pursue higher education. The value of multiple R is 0.5265 which means that there is moderate positive correlation between the number of SHS graduates who pursued higher education and final rating. The value of r-squared is 0.2772 which means that 27.72% of the values fit the model.

3.2.4.2 Employment and SHS Final Rating

Table 15: Linear Regression Result of the SHS graduates who pursued employment and their final rating

	Coefficients	Standard Error	t Stat	P-value
Intercept	4.0999	0.3874	10.5833	0.0000
SHS Final Rating	-0.0442	0.0046	-9.5691	0.0000

Multiple $R = 0.3766$ $R^2 = 0.1418$

Table 15 shows the linear regression result of the SHS graduates who pursued employment and their SHS final rating. The model generated is $y = 4.0999 - 0.0442x$. As seen on Table 15, the p-value is less than 0.05 (p=0.0000). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued employment and their SHS final rating. This means that a unit increase in the final rating causes a 0.0442 decrease in the number of those who will pursue employment. The value of multiple R is 0.3766 which means that there is low positive correlation between the number of SHS graduates who pursued employment and final rating. The value of r-squared is 0.1418 which means that 14.18% of the values fit the model.

3.2.4.3 Entrepreneurship and SHS Final Rating

Table 16: Linear Regression Result of the SHS graduates who pursued entrepreneurship and their final rating

	Coefficients	Standard Error	t Stat	P-value
Intercept	1.0765	0.2363	4.5565	0.0000
SHS Final Rating	-0.0118	0.0028	-4.1963	0.0000

Multiple $R = 0.1755$ $R^2 = 0.0308$

Table 16 shows the linear regression result of the SHS graduates who pursued entrepreneurship and their SHS final rating. The model generated is $y = 1.0765 - 0.0118x$. As seen on Table 16, the p-value is less than 0.05 (p=0.0000). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued entrepreneurship and their SHS final rating. This means that a unit increase in the final rating causes a 0.0118 decrease in the number of those who will pursue entrepreneurship. The value of multiple R is 0.1755 which means that there is negligible correlation between the number of SHS graduates who pursued entrepreneurship and final rating. The value of r-squared is 0.0308 which means that 3.08% of the values fit the model.

3.2.4.4 Middle Level Skills Development and SHS Final Rating

Table 17: Linear Regression Result of the SHS graduates who pursued middle level skills development and their final rating

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.6338	0.1884	3.3645	0.0008
SHS Final Rating	-0.0069	0.0022	-3.0915	0.0021

Multiple $R = 0.1302$ $R^2 = 0.0170$

Table 17 shows the linear regression result of the SHS graduates who pursued middle level skills development and their SHS final rating. The model generated is $y = 0.6338 - 0.0069x$. As seen on Table 17, the p-value is less than 0.05 (p=0.0021). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued middle level skills development and their SHS final rating. This means that a unit increase in the final rating causes a 0.0069 decrease in the number of those who will pursue middle level skills development. The value of multiple R is 0.1302 which means that there is negligible correlation between the number of SHS graduates who pursued middle level skills development and final rating. The value of r-squared is 0.0170 which means that 1.70% of the values fit the model.

3.2.5 Curriculum Exits of SHS Graduates and the Four Profile Variables

3.2.5.1 Higher Education and the Four Profile Variables

Table 18: Linear Regression Result of the SHS graduates who pursued higher education and the four independent variables

	Coefficients	Standard Error	t Stat	P-value
Intercept	-2.6778	0.5735	-4.6689	0.0000
Sex	-0.0533	0.0391	-1.3633	0.17348
Age graduated	-0.0435	0.0150	-2.8955	0.0039
Track/Strand	-0.0866	0.0186	-4.6473	0.0000
SHS Final Rating	0.0501	0.0051	9.8799	0.0000

Multiple R = 0.5598   adjusted R^2 = 0.3084 $F(4)$ =62.87 p = 0.0000

Table 18 shows the linear regression result of the SHS graduates who pursued higher education and the four independent variables (sex, age graduated, track/stand, & SHS final rating). The model generated is $y = -2.6778 - 0.0533x_1 - 0.0435x_2 - 0.0866x_3 + 0.0501x_4$. As seen on Table 18, the p-value of F stat is less than 0.05 (p=0.0000). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued higher education and sex, age graduated, track/strand, & final rating all together. The value of multiple R is 0.5598 which means that there is moderate positive correlation between the number of SHS graduates who pursued higher education and sex, age graduated, track/strand, & final rating all together. The value of the adjusted r-squared is 0.3084 which means that 30.84% of the values fit the model. Among the four independent variables, age graduated, track/strand, and final rating have p-values of t stat less than 0.05. This means that age graduated, track/strand, and final rating are significant predictors for the number of graduates who will pursue higher education.

3.2.5.2 Employment and the Four Profile Variables

Table 19: Linear Regression Result of the SHS graduates who pursued employment and the four independent variables

	Coefficients	Standard Error	t Stat	P-value
Intercept	2.5349	0.6164	4.1127	0.0000
Sex	0.0072	0.0420	0.1714	0.8639
Age graduated	0.0118	0.0162	0.7272	0.4674
Track/Strand	0.0926	0.0200	4.6231	0.0000
SHS Final Rating	-0.0311	0.0054	-5.7052	0.0000

Multiple R = 0.4202   adjusted R^2 = 0.1706 $F(4)$ =29.53 p = 0.0000

Table 19 shows the linear regression result of the SHS graduates who pursued employment and the four independent variables (sex, age graduated, track/stand, & SHS final rating). The model generated is $y = 2.5349 + 0.0072x_1 + 0.0118x_2 + 0.0926x_3 - 0.0311x_4$. As seen on Table 19, the p-value of F stat is less than 0.05 (p=0.0000). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued employment and sex, age graduated, track/strand, & final rating all together. The value of multiple R is 0.4202 which means that there is low positive correlation between the number of SHS graduates who pursued employment and sex, age graduated,

track/strand, & final rating all together. The value of the adjusted r-squared is 0.1706 which means that 17.06% of the values fit the model. Among the four independent variables, only the track/strand and final rating have p-values of t stat less than 0.05. This means that track/strand and final rating are significant predictors for the number of graduates who will pursue employment.

3.2.5.3 Entrepreneurship and the Four Profile Variables

Table 20: Linear Regression Result of the SHS graduates who pursued entrepreneurship and the four independent variables

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.7138	0.3816	1.8707	0.0619
Sex	0.0532	0.0260	2.0453	0.0413
Age graduated	0.0079	0.0100	0.7872	0.4315
Track/Strand	0.0231	0.0124	1.8589	0.0636
SHS Final Rating	-0.0102	0.0034	-3.0390	0.0025

Multiple R = 0.2046   adjusted R^2 = 0.0349 $F(4)$ =6.02 p = 0.0001

Table 20 shows the linear regression result of the SHS graduates who pursued entrepreneurship and the four independent variables (sex, age graduated, track/stand, & SHS final rating). The model generated is $y = 0.7138 + 0.0532x_1 + 0.0079x_2 + 0.0231x_3 - 0.0102x_4$. As seen on Table 20, the p-value of F stat is less than 0.05 (p=0.0001). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number of SHS graduates who pursued entrepreneurship and sex, age graduated, track/strand, & final rating all together. The value of multiple R is 0.2046 which means that there is negligible correlation between the number of SHS graduates who pursued entrepreneurship and sex, age graduated, track/strand, & final rating all together. The value of the adjusted r-squared is 0.0349 which means that 3.49% of the values fit the model. Among the four independent variables, only the sex and final rating have p-values of t stat less than 0.05. This means that sex and final rating are significant predictors for the number of graduates who will pursue entrepreneurship.

3.2.5.4 Middle Level Skills Development and the Four Profile Variables

Table 21: Linear Regression Result of the SHS graduates who pursued entrepreneurship and the four independent variables

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.4292	0.3009	1.4264	0.154332133
Sex	-0.0071	0.0205	-0.3462	0.729292521
Age graduated	0.0239	0.0079	3.0315	0.002547488
Track/Strand	-0.0290	0.0098	-2.9691	0.003116659
SHS Final Rating	-0.0087	0.0027	-3.2922	0.001057621

Multiple R = 0.2223   adjusted R^2 = 0.0425 $F(4)$ = 7.16 p = 0.0000

Table 21 shows the linear regression result of the SHS graduates who pursued entrepreneurship and the four independent variables (sex, age graduated, track/stand, & SHS final rating). The model generated is $y = 0.4292 - 0.0071x_1 + 0.0239x_2 - 0.0290x_3 - 0.0087$. As seen on Table 21, the p-value of F stat is less than 0.05 (p=0.0000). Therefore, we reject the null hypothesis and conclude that there is a significant linear relationship between the number

of SHS graduates who pursued middle level skills development and sex, age graduated, track/strand, & final rating all together. The value of multiple R is 0.2223 which means that there is negligible correlation between the number of SHS graduates who pursued middle level skills development and sex, age graduated, track/strand, & final rating all together. The value of the adjusted r-squared is 0.0425 which means that 4.25% of the values fit the model. Among the four independent variables, only the age graduated, track/strand, and final rating have p-values of t stat less than 0.05. This means that age graduated, track/strand, and final rating are significant predictors for the number of graduates who will pursue middle level skills development.

4. Conclusion and Recommendations

4.1 Conclusion
The findings revealed that there is a significant linear relationship between the SHS graduated from 2018 to 2021 who pursued higher education and employment and the four independent variables (sex, age, track/strand, and final rating) which have been tested individually. However, entrepreneurship and middle level skills development has a significant linear relationship with only two independent variables: track/strand and SHS final rating for entrepreneurship; and age graduated and SHS final rating for middle level skills development.

Moreover, the findings revealed that the four senior high school curriculum exits have a significant linear relationship with sex, age graduated, track/strand, and SHS final rating when tested all at once. This means that the graduates' sex, age at the time of graduation, track/strand, and final rating have an either positive or negative impact on the curriculum exit paths that they pursue.

4.2 Recommendations
Based on the results, other graduates who took up Academic/GAS did not pursue higher education. Likewise, other graduates who took up TVL strands pursued higher education. The school, and hopefully other schools as well, should start conducting career guidance orientation to students at least once per quarter and as early as Grade 9 so that students could really understand themselves and figure out what they want to be in the future.

The researcher suggests future studies about this topic for a more reliable result because it only involved four batch of graduates. Also, the researcher suggests doing research about this topic environment like a district-wide or division-wide research to really figure out how many of the graduates pursued any of the senior high school curriculum exit paths. Lastly, the researcher suggests conducting future studies about this topic exploring other independent variables.

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