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Determinants of College Degree Preference of Grade 12 Students in the Selected Public Schools, Division of Manila

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Abstract

Aim: The main objective of this study is to determine the significant factors that influence the college degree preference of grade 12 students in the selected public high schools, Division of Manila City.
Methodology: The study, which utilized the descriptive method, had 385 students. Stratified random sampling techniques were employed and data were gathered through a survey questionnaire.
Results: The study revealed that the majority of the students chose the Science, Technology, Engineering, and Mathematics (STEM) related program at the tertiary level. The group of respondents who will enroll in STEM-related programs and non-STEM-related programs both agreed that they were not so much anxious in mathematics towards their preferred college degree. IMost of the respondents under both groups were moderately confident in mathematics about their preferred college degree. The respondents who will pursue both STEM and Non-STEM related programs agreed that personality, interest, and job opportunity influenced them to recognize their preferred college degree. Lastly, the said group of respondents considered parental involvement and peer influence as not influential towards their preferred college degree.
Conclusion: The respondents prefer STEM-related programs such as Engineering, Medicine related fields, and Architecture. The respondents who chose non-STEM-related programs and STEM-related programs agreed that they feel moderately confident at the same time, not so much anxious about mathematics. They also agreed that personality, interest, and job opportunities influenced them in choosing their desired programs. Moreover, these groups also found that parental involvement and peer factors have less influence when it comes to college degree preference.

Keywords: College degree preference, mathematics anxiety, mathematics self-efficacy, personality, parental involvement, interest, job opportunity, peer, binary logistic regression

INTRODUCTION

Everyone has a right to education as per Article 26 of the Universal Declaration of Human Rights. Having higher educational attainment gives an individual a lot of opportunities in terms of career, employment rate increases, a good position in a company, and a good salary, and all of these start with choosing the right degree that fits one's attitude, intelligence, and skills. There are several factors people have to consider in terms of a college degree preferred. Previous studies recognized that college degree preference was influenced by personality, personal interest, and learning environment (Fizer, 2013; Tahil, 2021; Nyamwange, 2016; & Pesigan, et al, 2020). Additionally, instructors or teachers can be a factor to determine college degree preference. The music high school teachers were the ones who influenced the students to study music as a major (Hamilton, 2016). Fizer (2013) emphasized that parents, coaches, religious figures, or any role models in a student's life can affect students' college major decisions. The study by Briones and Rubi (2021) revealed that job opportunity, personal interest, and passion, and skill are the leading factors that students consider enrolling in BS Psychology, BS Preschool Education, BS Computer Engineering, and BS Hospitality Management, they discussed their result that students were fully aware of the in-demand courses. Choosing an appropriate college degree is hard yet it is essential, sometimes one needs the experience to determine the appropriate program as a choice. The future of the students will depend on their decision (Ragma, et al., 2023). Lack of readiness, occupational information, and self- information are some difficulties learners might encounter during their

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college degree selection. The study was different from the above literatures since the additional factors which are mathematics self-efficacy and anxiety were used as one of the predictors under senior high school level. The students under STEM and Non-STEM related programs were treated separately to examine the influenced by their levels of mathematics self-efficacy and anxiety, its negative effect may lead to the avoidance of STEM strand which require mathematical skills (Espino et al., 2017). This may in turn affect the students' career choices. This is alarming since our society is becoming more reliant on mathematics literacy. Considering the important role of Mathematics in our present world, avoiding Mathematics is not a good choice (Martirez, 2019). With this, the researcher came up with this problem to determine the significant factors that might affect grade 12 students in choosing their college degree in the selected public high schools, Division of Manila City. The location is appropriate because most public secondary high schools offers several academic tracks. The mathematics anxiety, mathematics self-efficacy, personality, parental involvement, interest, job opportunity, and peer influence were treated as independent variables, while the dependent variable is the college degree preference (STEM and Non-STEM) related programs.

Objectives

This study aimed to determine the significant factors affecting the college degree preference of grade 12 students in selected public secondary high schools in Districts IV and VI, City of Manila during the school year 2022-2023 – 1st Semester.

Specifically, the study attempted to answer the following:

1. What is the college degree preference of the respondents?
2. What is the perceived level of influence on the college preference of the respondents in terms of:
    - 2.1. Mathematics anxiety,
    - 2.2. Mathematics self-efficacy,
    - 2.3. Influence of personality,
    - 2.4. Parental involvement,
    - 2.5. Interest,
    - 2.6. Job opportunities, and
    - 2.7. Peer influence?
3. Which of the following variables are significant determinants of college degree preference of grade 12 students:
    - 3.1. Mathematics anxiety,
    - 3.2. Mathematics self-efficacy,
    - 3.3. Personality,
    - 3.4. Parental involvement,
    - 3.5. Interest,
    - 3.6. Job opportunities, and
    - 3.7. Peer influence?

Hypothesis

Given the stated research problem, the following hypotheses were tested on 0.05 level of significance:

Null Hypothesis: Mathematics anxiety, mathematics self-efficacy, personality, parental involvement, interest, job opportunity, and peer are not significant determinants of college degree preference of Grade 12 students.

Alternative Hypothesis: Mathematics anxiety, mathematics self-efficacy, personality, parental involvement, interest, job opportunity, and peer are significant determinants of college degree preference of Grade 12 students.

METHODS

Research Design

The researcher used the descriptive method of research. This method is helpful to obtain an existing information to a specific situation, group of people, or any kinds of events which one may wish to investigate. This study is descriptive since it pertains to describe the college degree preference of the respondents, the level of influence of college degree preference factors as perceived by the Grade 12 students in terms of mathematics anxiety,

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mathematics self-efficacy, personality, parental involvement, interest, job opportunity, and peer influence and to determine the significant factors affecting the college degree preference.

Population and Sampling

The population of the study was Grade 12 Science, Technology, Engineering, and Mathematics (STEM), Humanities and Social Science (HUMSS), and Accountancy, Business, and Management (ABM) students at the selected secondary public high schools in the City of Manila. Cochran's formula with 0.05 level of significance was utilized in order to obtain the sample size of 385 students. Stratified random sampling was applied in this study since the respondents were classified according to their respective schools.

Instrument

The researcher used a questionnaire as a tool in this study and it has four parts. The first part pertains to the demographic profile of the students, the second part gives us the college degree preference of the students, the third part talks about the Mathematics Self-Efficacy and Anxiety Questionnaire (MSEAQ) adapted from May (2009). A 5 point-Likert scale labeled as 1-No Confidence at all, 2-Very Little Confidence, 3-Moderate Confidence, 4-Much Confidence, and 5-Complete Confidence with a 14-item self-efficacy scale, and the 15-item anxiety scale and reversely scored as 1-Very Much, 2-Much, 3-Not So Much, 4-A little, and 5-Not at all. The last part contains the assessment of the respondents on the influence of personality, parental involvement, interest, job opportunity, and peer influence. Adapted from Dublin et al. (2020), it is also a 5 point-Likert scale consisting of five statements per determinant and labeled as 1-Not Influenced, 2-Less Influenced, 3-Somewhat Influenced, 4-Influenced, and 5-Very Much Influenced. To determine the consistency of the instrument, the researcher conducted a pilot study on 30 students with similar characteristics, but those students were not included in the official data gathering. It is generally accepted as reliable when Cronbach's alpha is higher than 0.8. The Cronbach's Alpha of the Influence of Mathematics Anxiety, Influence of Mathematics Self-Efficacy, Influence of Personality, Influence of Parental Involvement, Influence of Interest, Influence of Job Opportunity, and Peer Influence obtained 0.963, 0.965, 0.845, 0.742, 0.871, 0.864, and 0.875, respectively.

Data Collection

The researcher underwent University Research Ethics Clearance (UREC) and was approved by the committee. A letter of request to conduct data gathering in selected secondary public high schools in Districts IV and VI in Manila City was also approved by the Division of City School, and lastly, a letter of request to gather data online was also addressed to respective principals. After being approved by the officials, a link of the google form questionnaire was sent to the classroom advisers of each section, and forwarded to their students. The results of these questionnaires were tallied, tabulated, analyzed, and interpreted using appropriate statistical treatments.

Treatment of Data

The researcher used frequency and percentage to recognize the distribution of students per school and to determine the college degree preference of Grade 12 senior high school whether it is a STEM-related program or non-STEM-related program. Median was employed to determine the perceived level of influence for each factor as a whole toward their college degree preference. Lastly, Binary Logistic Regression was utilized since it is a type of regression analysis used to estimate the relationship with a dichotomous dependent variable. It was used to determine the significant factors that influenced the respondents in terms of college degree preference.

Ethical Considarations

The researcher went through University Research Ethics Clearance (UREC) and was approved by the officials. A letter of request to proceed data gathering in selected secondary public high schools in Districts IV and VI in Manila City was also confirmed by the Division of City School, also a letter of request to gather data online was also sent to respective principals. The provision of letter, addressed to each respondents was also presented to each class advisers and sent online to ensure the awareness of the students on the context of data-gathering procedure and also to inform their respective parents about this process.

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RESULTS and DISCUSSION

Preferred College Degree Preference of the Respondents

Table 1. Frequency and Percentage Distribution of the College Degree Preference of the Respondents

College Degree	Frequency	Percentage (%)
STEM-related	203	52.7
Non-STEM related	182	47.3
Total	385	100.0

Table 1 illustrates the frequency and percentage of college degree preference of selected Grade 12 senior high school students. Out of 385 respondents, almost half of them (52.7%) wanted to pursue STEM-related programs such as Architecture, Medicine, Science, Engineering, Information Technology, Mathematics, Economics, Geography, Psychology, and Music. On the other hand, 47.3% of the respondents were interested to take non-STEM related programs like Accountancy, Business Administration, Broadcasting, Criminology, Culinary Arts, Hospitality Management, Humanities, Interior Design, Journalism, Philosophy, Political Science, Secondary Education, Theater Arts, and Tourism Management. Abu Bakar (2020) emphasized that both STEM and Non-STEM programs have the same level of difficulty. It's up to the individual how they will handle the program Being fascinated in STEM courses is the highest motivator for selecting a STEM-related programs in college (Mitchell, 2016). This was supported by Blotnicky (2018), that is, exposure in STEM careers will allow the students to improve their interest and passion towards STEM-related careers. In the study provided by Chiemelie (2017), personality of an individual is a factor to consider in choosing non-STEM related programs such as tourism management and hospitality management.

Respondents' Perceived Assessment in Terms of Mathematics Anxiety, Mathematics Self-Efficacy, Influence of Personality, Parental Involvement, Interest, Job Opportunities, and Peer Influence

Table 2. Level of Mathematics Anxiety

Mathematics Anxiety	Median	Verbal Interpretation
I get tense when I prepare for a mathematics test	3.00	Sometimes
I get nervous when I have to use mathematics outside the online class.	3.00	Sometimes
I worry that I will not be able to use mathematics in my future career when needed.	3.00	Sometimes
I worry that I will not be able to get a good grade in my mathematics subject.	3.00	Sometimes
I worry that I will not be able to do well on mathematics test.	3.00	Sometimes
I feel stressed when listening to mathematics instructor during online class	3.00	Sometimes
I get nervous when asking questions during online class.	3.00	Sometimes
Working on mathematics homework is stressful for me.	3.00	Sometimes
I worry that I do not know enough mathematics to do well in future mathematics courses.	3.00	Sometimes
I worry that I will not be able to complete every assignment in a mathematics course.	3.00	Sometimes
I worry I will not be able to understand mathematics.	3.00	Sometimes
I worry that I will not be able to get an "A" in my mathematics courses.	3.00	Sometimes
I worry that I will not be able to learn well in my mathematics course.	3.00	Sometimes
I get nervous when taking a mathematics test.	3.00	Sometimes
I am afraid to give an incorrect answer during my mathematics class.	3.00	Sometimes

Legend: *1 – Usually, 2 – Often. 3 – Sometimes, 4 – Seldom, 5 - Never*

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Table 2 depicts the level of mathematics anxiety of the respondents. Note that mathematics anxiety in the table above was reversely scored, the higher the median value means a lower level of mathematics anxiety and a lower median value indicates a higher level of mathematics anxiety. All statements under this category were verbally interpreted as "Sometimes". This verbal interpretation implies that respondents were sometimes worried in terms of mathematics subject. The result above was supported by Martirez (2019), the study revealed that students "Sometimes" worried towards mathematics.

Table 3. Level of Mathematics Self-Efficacy

Mathematics Self-Efficacy	Median	Verbal Interpretation
I feel confident enough to ask questions in any mathematics class.	3.00	Moderate Confidence
I believe I can do well on a mathematics test.	3.00	Moderate Confidence
I believe I can complete all of the assignments in a mathematics subject.	4.00	Much Confidence
I believe I am the kind of person who is good at mathematics.	3.00	Moderate Confidence
I believe I will be able to use mathematics in my future career when needed.	4.00	Much Confidence
I believe I can understand the content in a mathematics course.	3.00	Moderate Confidence
I believe I can get an "A" when I am in a mathematics course.	3.00	Moderate Confidence
I believe I can learn well in a mathematics course.	3.00	Moderate Confidence
I feel confident when taking a mathematics test.	3.00	Moderate Confidence
I believe I am the type of person who can do mathematics.	3.00	Moderate Confidence
I feel that I will be able to do well in future mathematics courses.	3.00	Moderate Confidence
I believe I can do mathematics in a mathematics course.	3.00	Moderate Confidence
I believe I can think like a mathematician.	2.00	Very Little Confidence
I feel confident when using mathematics outside the class.	3.00	Moderate Confidence

Legend: *1 – No Confidence at all, 2 – Very Little Confidence, 3 – Moderate Confidence, 4 – Much Confidence, 5 – Complete Confidence.*

Table 3 displays the level of mathematics self-efficacy of the overall respondents. "I believe I can think like a mathematician" received the lowest median with a verbal interpretation of "Very Little Confidence". The statements "I believe I can complete all of the assignments in a mathematics subject" and "I believe I will be able to use mathematics in my future career when needed" both obtained an interpretation of "Much Confidence". The remaining statements were all interpreted as "Moderate Confidence. This shows us that most of the students are condident enough to handle and to take mathematics subjects. This result was supported by Martirez (2019) and also espoused by Jones (2015), they found that students with low mathematics self- efficacy were less likely to have interest in STEM-related programs.

Table 4. Level of Influence of Personality

Personality Factor	Median	Verbal Interpretation
My personality fits best in my chosen program that I would take for college study.	4.00	Influenced
My traits and understanding of them will give me an advantage in landing to my pursued program.	4.00	Influenced
I am more productive in this program that I'll practice due to my traits.	4.00	Influenced
My personality should be ideal for the program that I would focus on.	4.00	Influenced
My preferred program will serve as a training ground for acquiring my desired personality or attributes of a professional.	4.00	Influenced

Legend: *1 - Not Influenced, 2 - Less Influenced, 3 - Somewhat Influenced, 4 – Influenced, 5 - Very Much Influence*

Table 4 shows the level of influence of personality. It can be deduced that the students' personality served as a guide to determining their desired program in college. This was supported by Tahil (2021), that personality factor was a significant factor. There is a program at the tertiary level that will fit or be appropriate based on your personality (Najar & Yousuf, 2018).

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Table 5. Level of Influence of Parental Involvement

Parental Involvement Factor	Median	Verbal Interpretation
My parents and/or relatives took the same program that I would pursue.	2.00	Less Influenced
My program choice will be made by my relatives since they will provide for the expenses.	1.00	Not Influenced
Asking my parents about college degrees helped me determine my ideal job.	3.00	Somewhat Influenced
I believe that they are the ones who are responsible to choose a program for me since they may know what is best for me.	2.00	Less Influenced
My chosen program is beneficial to my parents.	3.00	Somewhat Influenced

Legend: *1 - Not Influenced, 2 - Less Influenced, 3 - Somewhat Influenced, 4 – Influenced, 5 - Very Much Influence*

Parental involvement plays an important role in our students in order to decide what degree in tertiary level that will fit to their characteristics but in Table 5, it shows that parents and relatives were not influential in terms of their college degree selection. This was supported by Martirez (2019) that some parents allowed their children on their own decision-making and to be independent pertaining to the college program they want to pursue. However, this was contrary to the result of Kaneez & Medha (2018), that parental involvement is a great influence on college degree preference.

Table 6. Level of Influence of Interest

Interest Factor	Median	Verbal Interpretation
I am particularly interested in this program that I`ll pursue in college.	4.00	Influenced
I like doing things related to the program that I would specialize in this degree.	4.00	Influenced
To gain experience stimulates my interest in this program.	4.00	Influenced
I see myself as competent in this program that I`ll pursue in college.	4.00	Influenced
I will choose this program that I genuinely enjoy and feel motivated to learn more.	4.00	Influenced

Legend: *1 - Not Influenced, 2 - Less Influenced, 3 - Somewhat Influenced, 4 – Influenced, 5 - Very Much Influence*

Table 6 exhibits the level of interest as a factor of the respondents in choosing a college course. In terms of overall perceived level, all statements obtained a verbal interpretation of "Influenced". That is, from respondents who will take non-STEM and STEM related programs, being interested in a program they want in college, things they want to do related to their dream program, gaining experience, being the competent person to their program they want, and to feel motivated in terms of their program are the reasons that drive them to pursue their desired programs in college. This result supports the study conducted by Rababah (2017), Abah et al. (2019), and Ribble (2020); they noted that the influence of interest was a factor that stimulates the students to choose business administration as a major, mathematics-related program as a major, and chemistry as a major.

Table 7. Level of Influence of Job Opportunity

Job Opportunities Factor	Median	Verbal Interpretation
There are abundant opportunities I can avail from the program I would like to pursue.	4.00	Influenced
The program that I will choose will help me to find a suitable job opportunity easily.	4.00	Influenced
The program that I would pursue is timely and in demand.	4.00	Influenced
I am fully aware of the opportunities that surround the program that I am looking for.	4.00	Influenced
My program choice is a highly paid profession.	4.00	Influenced

Legend: *1 - Not Influenced, 2 - Less Influenced, 3 - Somewhat Influenced, 4 – Influenced, 5 - Very Much Influence*

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Table 7 provides the level of job opportunities of the respondents as a determinant. As shown, it was also the case of the interest factor under Table 6, obtaining abundant opportunities in the program they want to pursue, choosing their desired program will help them to find a suitable job, the program they want to pursue is timely and in-demand, being fully aware to the opportunities that surround the program they were looking for, and their chosen degree is a highly paid profession are the reasons that stimulate them to choose their desired degree in tertiary level. This was supported by a previous study conducted by Ouano et al. (2019) and Malubay et al. (2015), that job opportunity as a factor plays an important role for students who will pursue hospitality and tourism programs. Briones & Rubi (2021) had the same result, that job opportunity was one of the leading factors that drive the students to enroll in the areas of BS Psychology, BS Preschool Education, BS Computer Engineering, and BS Hospitality Management.

Table 8. Level of Influence of Peer

Peer Influence Factor	Mean	Verbal Interpretation
I choose a program according to my friend's preference.	1.00	Not Influenced
My friends provide insights or ideas about the program I would like to pursue in college.	2.00	Less Influenced
My friend's chosen program is an appealing profession.	2.00	Less Influenced
I do not want to be separated from my friends so I will choose the same program they may select.	1.00	Not Influenced
The educational background of my friend's family inspires me to pursue the program they took.	1.00	Not Influenced

Legend: *1 - Not Influenced, 2 - Less Influenced, 3 - Somewhat Influenced, 4 – Influenced, 5 - Very Much Influence*

Table 8 illustrates the level of peer influence of the respondents. It can be gleaned from the table that relying on one's friends or peers is less influential in terms of college degree preference. Based on the results, it can be noted that peer influence doesn't help students to recognize their preferred college degree. This result was contrary to Abah, et al. (2019) and Rababah, et al. (2017) who noted that peers influenced the students in mathematics-related programs and business administration as a major, respectively.

Significant Determinants of College Degree Preference of Grade 12 Students

The table below exhibits the generalized factors that significantly influenced the college degree preference of Grade 12 students using the concept of Binary Logistic Regression. It implies that out of seven determinants, only the influence of Mathematics Self-Efficacy, Personality, Interest, and Job Opportunities were the significant factors. With this, the odds ratio was also provided. The odds ratio or ratio of the odds indicated a relationship between two things, the larger the value, a certain variable is a better predictor of another variable, and if the odds ratio is smaller, a variable is not a good predictor of another variable.

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Table 9. Significant Determinants of College Degree Preference of Grade 12 Students using Binary Logistic Regression

Variables in the Equation	Coefficient	Odds Ratio	P-value	Decision	Remarks
Constant	-0.608	0.545	0.554	Failed to Reject Ho	Not Significant
Mathematics Self Efficacy					
No Confidence at all	-1.078	0.340	0.134	Failed to Reject Ho	Not Significant
Very Little Confidence	-1.238	0.290	0.028	Reject Ho	Significant
Moderate Confidence	-1.118	0.327	0.037	Reject Ho	Significant
Much Confidence	-1.147	0.318	0.035	Reject Ho	Significant
Mathematics Anxiety					
Not at all	0.452	1.571	0.402	Failed to Reject Ho	Not Significant
A Little	0.489	1.631	0.324	Failed to Reject Ho	Not Significant
Not So Much	-0.081	0.922	0.863	Failed to Reject Ho	Not Significant
Much	0.228	1.256	0.659	Failed to Reject Ho	Not Significant
Personality Factor					
Not Influenced	-2.913	0.054	0.056	Failed to Reject Ho	Not Significant
Less Influenced	0.673	1.961	0.261	Failed to Reject Ho	Not Significant
Somewhat Influenced	0.935	2.547	0.018	Reject Ho	Significant
Influenced	0.820	2.270	0.018	Reject Ho	Significant
Parental Involvement Factor					
Not Influenced	0.259	1.296	0.617	Failed to Reject Ho	Not Significant
Less Influenced	0.234	1.264	0.663	Failed to Reject Ho	Not Significant
Somewhat Influenced	-0.146	0.864	0.778	Failed to Reject Ho	Not Significant
Influenced	-0.313	0.731	0.597	Failed to Reject Ho	Not Significant
Interest Factor					
Not Influenced	0.618	1.856	0.509	Failed to Reject Ho	Not Significant
Less Influenced	-0.516	0.597	0.396	Failed to Reject Ho	Not Significant
Somewhat Influenced	-0.880	0.415	0.014	Reject Ho	Significant
Influenced	-0.847	0.429	0.008	Reject Ho	Significant
Job Opportunities Factor					
Not Influenced	0.725	2.066	0.459	Failed to Reject Ho	Not Significant
Less Influenced	-1.164	0.312	0.035	Reject Ho	Significant
Somewhat Influenced	-0.186	0.830	0.559	Failed to Reject Ho	Not Significant
Influenced	-0.239	0.788	0.428	Failed to Reject Ho	Not Significant
Peer Influence Factor					
Not Influenced	1.769	5.865	0.058	Failed to Reject Ho	Not Significant
Less Influenced	1.630	5.103	0.087	Failed to Reject Ho	Not Significant
Somewhat Influenced	1.544	4.684	0.107	Failed to Reject Ho	Not Significant
Influenced	1.525	4.596	0.126	Failed to Reject Ho	Not Significant

Note: *If the p-value is less than or equal to the level of significance which is 0.05 reject the null hypothesis otherwise failed to reject Ho. Reference Category: Usually and Very Much Influenced*

With this, mathematics self-efficacy, personality, interest, and job opportunity were significant determinants of college degree preference while mathematics anxiety, parental involvement, and peer influence were not. Mathematics self-efficacy as being a significant determinant was supported by the result of Martirez (2019) which determined the senior high school track preference of grade 10 students in junior high school. Kesan & Kaya (2018) espoused this factor as students who have a mathematics self-efficacy have a possibility to pursue a STEM-related program. In personality factors as one of the significant determinants, Edmonds (2012) stated in his study that if a personality of students was aligned with their desired college major, then these students will become successful in the future. Tahil (2021) supported this statement, according to him, the personality of a student was a significant factor in determining the preferred college degree of grade 12 students. For the interest factor, the underpinned results are the studies conducted by Abah et al. (2019), Ribble (2020), Rababah (2016), and Lamasan (2014).They discussed that interest was a good determinant in terms of mathematics-related courses, chemistry as a major, business administration as a major, and architecture as a major. With regards to job opportunity, Martirez (2019) and Ouano et

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al. (2019) also concluded that job opportunity or employment opportunity is a significant factor to choose a strand preference and degree preference.

Conclusions and Recommendations

Most of the respondents prefer STEM-related programs such as Engineering, Medicine related fields, and Architecture. The respondents who chose non-STEM-related programs and STEM-related programs agreed that they feel moderately confident at the same time, not so much anxious about mathematics. Both groups also agreed that personality, interest, and job opportunities influenced them in choosing their desired college programs. Moreover, these groups also found that parental involvement and peer factors have less influence when it comes to college degree preference, and among the seven determinants, mathematics self-efficacy, personality, interest, and job opportunities are the significant factors in determining the college degree preference of Grade 12 students. The remaining factors, which are mathematics anxiety, parental involvement, and peer influence are not significant factors.

The researcher recommends the provision of colleges/universities that offer STEM-related programs, produce additional STEM-related programs in the university, and extend the allowed number of enrolled students or quota within a specific STEM-related program. The mathematics self-efficacy, the influence of personality, interest, and job opportunity can be used as factors to determine other variables such as the academic performance of the students in their chosen program in college and preferred careers in the future. Provision of competent mathematics teachers that will enhance the self-efficacy of the students towards mathematics or the schools can provide workshops or training that will serve as a guide to improve the mathematics self-efficacy of a student. Expose the students to realistic occupational information such as work immersion or job fairs, and support the students based on their respective happiness or passion. For future researchers, the National Career Assessment Examination (NCAE), Scholarship, Priority Academic Programs, accreditation level of the university, travel time from home to school, and teaching style of the faculty members can also add as a factor to determine the preferred college degree of Grade 12 students.

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