Factors Influencing The Course Preference of Senior High School STEM Strand Graduates Enrolled in Non-STEM Degrees

A'ishah G. Hadji Serad[1],
Salamah M. Basher[2]
[1,2]Mindanao State University-Marawi/ MSU-Institute of Science Education
Marawi City, Lanao del Sur

aishahghadjiserad@gmail.com

ABSTRACT

This study aimed to determine the factors that influence the course preferences of Senior High School (SHS) graduates from the Science, Technology, Engineering, and Mathematics (STEM) strand who chose to enroll in non-STEM degrees. The study used mixed-method research design. The respondents were the SHS STEM strand graduates of Marawi City National High School enrolled in non-STEM degrees in different higher education institutions in Marawi City. Findings revealed that most of these students had a very satisfactory academic performance in SHS, with general averages ranging from 85–89. Majority of the respondents were enrolled in private colleges. Most of their parents were college graduates, and many fathers worked as vendors or farmers, while most mothers were housewives. The typical family income ranged from ₱5,001 to ₱10,000 monthly. The most chosen non-STEM degrees were Social Work, Education, and Criminology. The study identified two major categories of influencing factors: social and individual. Social factors included university considerations, perceived usefulness of the course, and social considerations. Individual factors encompassed personal interest, the influence of surrounding and geographic location. The study found that personal and social factors were more influential than academic or economic backgrounds. Students were strongly influenced by their own interests, peer advice, perceived job opportunities, and the convenience of the school location. However, Academic performance and parents' socio-economic status did not significantly influence their course choices. The study concludes that the course decisions of the STEM graduates who pursued non-STEM degrees is largely influenced by personal interest, peer advice, perceived job opportunities, and convenience rather than academic performance and parental socio-economic status.

Keywords: *Course Preference, STEM Strand, Non-STEM degrees, Social Factor, Individual Factor*

INTRODUCTION

The Science, Technology, Engineering, and Mathematics (STEM) is one of the strands under the Academic track in senior high school. It aims to prepare students for future careers in STEM-related fields such as engineering, information technology, medical sciences, and other technical professions. STEM education plays crucial role in developing a workforce capable of addressing technological challenges, driving innovation, and contributing to economic growth.

Globally, there is a growing demand for STEM professionals. In fact, the World Economic Forum reports that over the next five years, there will be a 21% increase in demand for STEM workers in the country (StrandPh, 2023). This means more opportunities are opening up in areas like engineering, information technology, and health sciences. Because of this, schools and the government are encouraging more students to enter and stay in the STEM track.

Despite strong initiatives to promote STEM education and the increasing opportunities in STEM-related careers, there remains a noticeable and concerning trend many SHS STEM strand graduates choose not to pursue STEM-related courses in higher education. The issue comes up when SHS STEM strand graduates decide to pursue a course unrelated to the strand they completed in their senior year of high school (Caballes, et al., 2022). This shift raises critical questions about the alignment between the STEM curriculum and students' actual career interests, motivations, and circumstances. It also highlights a disconnect between national goals to boost the STEM workforce and the career paths chosen by the students. Hence, this study aims to investigate and determine the factors influencing the course preference of SHS STEM strand graduates who choose to pursue non-STEM courses in higher education.

Statement of the Problem

This study aimed to determine the factors that influence the course preference of STEM Graduates who pursued non- STEM courses. Specifically, this study sought to answer the following questions:

1. What is the Demographic profile of the students in terms of:
   - 1.1. Academic Performance (SHS general average);
   - 1.2. Type of school;
   - 1.3. Parents' educational background;
   - 1.4. Parents' occupations;
   - 1.5. Family Monthly Income.
2. What is the preferred non-STEM course of the STEM Strand graduates?
3. What are the factors that influence SHS STEM strand graduates' decisions to pursue non-STEM courses in terms of:
   - 3.1 Social Factors
     - 3.1.1 Consideration of University
     - 3.1.2 Perceived usefulness
     - 3.1.3 Social Consideration
   - 3.2 Individual Factors
     - 3.2.1 Personal Interest
     - 3.2.2 Influence of Surrounding

3.2.3 Geographic Location

4. Is there a significant relationship on the demographic profile of the STEM strand graduates and their course enrolled?

METHODS

This study used a mixed-method research design which involves both quantitative and qualitative data collection methods to determine the factors influencing the course preferences of the respondents. The quantitative component of the research involves administering survey questionnaire to a STEM strand graduate who were enrolled in non-STEM degrees. The survey questionnaire assesses different factors such as Consideration of university, Perceived usefulness, social considerations, Personal interest, Influence of surroundings, and Geographic location in their decision-making process. The qualitative component of the research involves conducting an interview to gather relevant information and responses from a selected participant.

Respondents of the study

The respondents of the study were the STEM Strand graduates of Marawi City National High School for three consecutive school years from 2021-2022, 2022-2023, and 2023-2024. All the SHS STEM strand graduates who took up non-STEM degrees for the above-mentioned school years were included in the study which consists of 125 respondents.

Sampling method

The sampling method used in determining the factors influencing the course preferences among STEM graduates is purposive sampling. Purposive sampling is a technique employed to select participants who are most likely to provide relevant and valuable information for the research study (Kelly, 2010).

Research instrument

In order to collect data for this research, a combination of survey questionnaire and interview guide questions were used as research instruments. A survey questionnaire was utilized to gather the necessary data. The survey questionnaire was adopted from the "Questionnaire for the Assessment of Factors related to University degree choice in Spanish Public system: A Psychometric Study" by *Pero, M., Soriano, P., Capilla, R., Olmos, J., and Hervas, A. (2015)*.

The survey questionnaire consist of the following parts: Part one includes the demographic profile of the respondents according to academic performance (SHS general average), type of school enrolled, course currently taking up, parents' educational background, occupation of parents, and family monthly income; the part two assesses the identified factors may influence their course preferences – Social Factors: Consideration of university, Perceived usefulness, social considerations; and Individual Factors: Personal interest, Influence of surrounding, and geographic location; Students were asked to score the course preference determinants on a 7-point Likert scale, with 1 being the strongly disagree and 7 being the strongly agree.

Table 1: The Seven-point Likert Scale and its interpretation.

Rating	Description	Symbol
1	Strongly Disagree	SD
2	Disagree	D
3	Somewhat disagree	SWD
4	Neither agree or disagree	N
5	Somewhat agree	SWA
6	Agree	A
7	Strongly agree	SA

Another instrument used in this study was semi-structured interview guide questions to gather information and responses from the respondents. The open-ended questions provide qualitative data of the study, allowing for a more understanding of the factors that may influence the decision of STEM graduates to pursue non-STEM degrees.

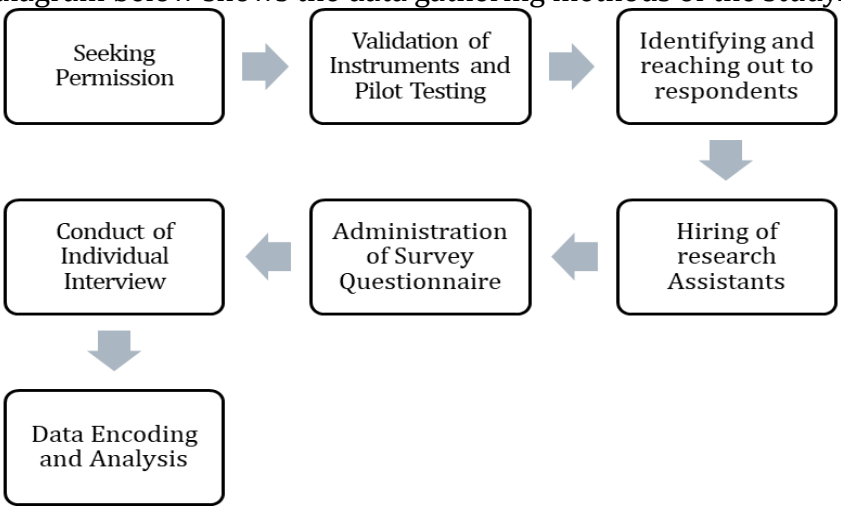
Validation of the instrument

The adopted survey questionnaire was designed to assess factors influencing students' choices of university degrees in the Spanish public university system which is divided into two factors. These two factors namely; Social and Individual factors were further divided into sub-factors or constructs such as: (a) Consideration of the University, (b) Perceived Usefulness (c) Social Consideration (d) Personal Interest (e) Influence of surrounding and (f) Geographic Location.

The survey questionnaire already went through a rigorous validation process that included expert review, pilot testing, and psychometric validation. The initial 59-item scale was reduced to 25 items after expert review and pilot testing. Validation with 1,532 first-year students from eight universities demonstrated high internal consistency (Cronbach's α = 0.73–0.94). it was also pilot tested to the sample of respondents not included in the study. While the semi-structured interview guide questions were validated by the research adviser and experts.

Data gathering procedure

The diagram below shows the data gathering methods of the study.



FINDINGS AND DISCUSSIONS

Demographic Profile of the Respondents

The table 2 to 8 presents the demographic profile of the Senior high school STEM graduates

Table 2: Senior High School General Average

SHS General Average	Frequency	Percentage
96 - 100	2	1.6
90 - 95	19	15.2
85 - 89	60	48
80 - 84	34	27.2
75 - 79	10	8
Total	**125**	**100.0**

The result shows that 60 or 48% of the respondents had a general average grade ranging from 85-89. Followed by 34 or 27.2% of the respondents had a general average grade ranging from 80-84. Followed by 19 or 15.2% of the respondents had a general average grade ranging from 90-95. While 10 or 8% of the respondents had a general average grade ranging from 75-79. And only 2 or 1.6% of the respondents had a high average grade ranging from 96-100, signifying the highest academic achievers. The results showed that majority of the respondents had a very satisfactory general average or they performed moderately well in their academic performance, with general averages ranging from 85 to 89. This suggests that most students were able to keep up with academic requirements, even if they were not at the top of their class.

Table 3: Respondents' Type of school enrolled

Type of school enrolled	Frequency	Percentage
Public	32	25.6
Private	93	74.4
Total	**125**	**100.0**

As shown, the result shows that 74.4% of the respondents were enrolled in private schools and 25.6% were enrolled in public schools in Marawi City. This suggests that the majority of students opt for private institutions. One contributing factor may be the perceived accessibility of private schools, particularly in terms of their admission processes. Unlike public institutions, which may require passing competitive entrance exams such as the MSU-SASE (Mindanao State University – System Admission and Scholarship Examination), private schools often have more flexible or less stringent admission requirements. Additionally, the limited availability of public higher education options in Marawi City which can also have a big impact on enrollment pattens and the decision of the respondents to enroll in private schools.

Table 4: Educational Background of the Respondents' Father

Father's Educational Background	Frequency	Percentage
College Graduate	40	32
High School Graduate	36	28.8
High School Level	17	13.6
Elementary Graduate	16	12.8
Elementary Level	14	11.2
Others	2	1.6
Total	**125**	**100.0**

As shown, A significant portion of respondents (32%) have fathers who have completed college. While 28.8% of fathers being high school graduates, this is followed by 13.6% of father's respondents are high school level or incomplete. The 12.8% of Respondents' Father are Elementary Graduates, while the remaining 11.2% are at the Elementary Level Only.

The results indicate that majority of the respondents' father were college graduates. In areas like Marawi City, where economic opportunities are often limited, many families view education especially a college degree as a key to a better life. Even if jobs are hard to find, people still believe that having a degree can help them get better employment, earn more income, and improve their family's future. For many of the respondents' fathers, finishing college was a way to prepare for a stable and successful life.

Table 5: Educational Background of the Respondents' Mother

Mother's Educational Background	Frequency	Percentage
College Graduate	50	40
High School Graduate	37	29.6
High School Level	13	10.4
Elementary Graduate	16	12.8
Elementary Level	8	6.4
Others	1	0.8
Total	**125**	**100.0**

As shown in the table, results revealed that a significant portion of respondents (40%) have mothers who are college graduates. Followed by 29.6% who have mothers with high school diplomas. Smaller portions are represented by mothers with high school level education, elementary level education, and elementary school completion.

The result indicates that majority of the respondents' mother were college graduates. The fact that more than two-fifths of the mothers are college graduates suggests that many of the respondents come from families where education is valued and prioritized, particularly among women. It also implies that most respondents may have grown up in environments that support or encourage academic achievement, as

mothers typically play a crucial role in shaping their children's attitudes toward education.

Table 6: Occupation of Respondents' Father

Father's Occupation	Frequency	Percentage
Farmer	28	22.4
Household husband	15	12
Seller/Vendor	27	21.6
OFW	8	6.4
Government Employee	4	3.2
Private Employee	11	8.8
Others	32	25.6
Total	**125**	**100.0**

As shown in the table, the result revealed that 32 or 25.6% of the respondents' Father Occupation were belong to "others". while 28 or 22.4% of the respondents' Father Occupation were farmers, 27 or 21.6% of the respondents' Father Occupation were Seller/Vendor, 15 or 12% of the respondents' Father Occupation were household husband, 8 or 6.4% of the respondents' Father Occupation were OFW. 11 or 8.8% of the respondents' Father Occupation were private employee, while only 4 or 3.2% of the respondents' Father Occupation were government employee.

The data reveals a notable dominance of informal and irregular work among the respondents' fathers, as indicated by the percentage (25.6%) falling under the "others" category. This suggests a strong reliance on non-formal employment, where income is often unstable and depends heavily on the availability of work, local demand, or seasonal conditions. Such employment may include jobs like construction work, driving, or small-scale labor, which are common in areas with limited access to formal job opportunities. In addition, 22.4% of the fathers are farmers, highlighting agriculture as another major source of livelihood. This is especially expected in provincial areas in surrounding communities of Marawi, where farming is traditionally practiced.

According to the United Nations Development Programme (UNDP), many workers in Marawi depend on informal jobs due to limited access to formal employment and unstable economic conditions. Similarly, studies by Abellera (2023) explain that individuals are more likely to work in informal or agricultural sectors, especially if they have lower educational attainment and limited job options nearby. These occupations are often unstable and seasonal, leading to uncertain income.

Table 7: Occupation of Respondents' Mother

Father's Occupation	Frequency	Percentage
Farmer	6	4.8
Housewife	58	46.4
Seller/Vendor	30	24
OFW	8	6.4
Government Employee	7	5.6
Private Employee	4	3.2
Others	12	9.6
Total	**125**	**100.0**

As shown, Majority (46.4%) of respondents' mothers are housewives, followed by 24% of Respondents' Mothers are Sellers/Vendors, followed by 6.4% of Respondents' Mothers Are Overseas Filipino Workers (OFWs), followed by 5.6% of mothers are employed in the government sector, while 3.2% of respondents' mothers are private employees and the remaining 9.6% of Respondents' Mothers Are in "Other" Occupations which composed of 2 Asatidz, 1 dress maker, 2 volunteer, 2 ISAL. While the other 3 were dead.

The result showing that 48.3% of the respondents' mothers are housewives suggests that many women in Marawi City and nearby areas stay at home to take care of the family. This is common in rural and traditional communities where it is expected that men work outside while women manage the household. Cultural and religious values, especially in Muslim communities, often support this role. Also, many mothers may not have finished school or had the chance to build a career, which makes it more practical for them to stay at home. This expectation is deeply rooted in Maranao culture and Islamic values, which emphasize the role of women as housewives (UN-Habitat, 2022; Vonas Media, n.d.). Additionally, due to limited access to employment and education, many women either did not complete formal schooling or lacked the opportunity to pursue careers, making it more practical for them to remain at home (World Vision, 2023).

Table 8: Family Monthly Income

Monthly Income	Frequency	Percentage
5,000 and below	38	30.4
5,001 -10,000	32	25.6
10,001 – 15,000	19	15.2
15,001 – 20,000	14	11.2
20,001 – 25,000	15	12
25,001 – 30,000	4	3.2
30,001 – 35,000	3	2.4
Total	**125**	**100.0**

Majority of the respondents (30.4%) comes from families with monthly income of P5,000 or below. 25.6% of Respondents' family Earn Between P5,001 to P10,000. 15.2% of families earn between P10,001 and P15,000, and 11.2% earn between P15,001 and P20,000. While the 12% of families fall into the P20,001 to P25,000 range, and only 3.2% of families earn between P25,001 and P30,000 and 2.4% of families earn between P30,001 and P35,000.

The results show that most of the respondents come from families with low income. A large number (30.4%) earn P5,000 or less per month, and another 25.6% earn between P5,001 and P10,000. This means that more than half of the respondents' families live on just P10,000 or less each month—which is a small amount, especially for families with several members.

There are several reasons why many families have low income. One of the most critical is the limited availability of stable employment. Because of this, many parents—especially those without college degrees—have a hard time finding stable, well-paying jobs. Many of the respondents' fathers and mothers are working in informal or low-

income jobs, such as farming, selling goods, or doing small businesses. These types of jobs often don't pay much and the income is not stable (UNDP, 2023; PIDS, 2021).

The preferred non-STEM degrees of the STEM Strand graduate

Table 9 presents the preferred non-STEM degrees of the STEM Strand graduate.

Table 9: Course enrolled

Course	Frequency	Percentage
AB - Community Development	2	1.6
AB - History	2	1.6
AB – Philosophy	1	0.8
AB - Public Administration	4	3.2
BEED- General Education	22	17.6
BS – Accountancy	5	4
BS - Criminology	16	12.8
BS- Agriculture	9	7.2
BS- Fisheries	2	1.6
BS- Forestry	3	2.4
BS- Islamic Banking and Finance	1	0.8
BS -Islamic Studies	3	2.4
BS- Social Work	45	36
BS- Teaching Arabic	1	0.8
BS-BA Entrepreneurial Marketing	1	0.8
BSEd- TLE	1	0.8
BSED-ENGLISH	5	4
BTLE- HE	2	1.6
Total	**125**	**100.0**

The majority of respondents, 45 (36%), pursued a degree in Social Work, while BEED General Education was the second most chosen course, with 22 (17.6%) of the respondents. This indicates a clear trend towards fields focused on helping and supporting others, as Social Work and General Education are both oriented toward social services, education, and community welfare. The third most common course pursued was BS Criminology, with 16 (12.8%) respondents selecting this path, reflecting the interest in law enforcement and criminology among the student population.

Meanwhile, the remaining 33.6% of respondents opted for a range of different courses, including AB Accountancy, BSED English, AB Public Administration, BS Islamic Studies, AB Agricultural Extension, AB History, BS Agriculture, BS Forestry, BTLE-HE, and Community Development, which suggests a diverse set of academic interests among the students. The results suggests that the preference for Social Work and Education may reflect personal values such as a desire to serve the community, seek

stable employment, or follow career paths that are perceived as more accessible. While the course BS Criminology, often viewed as a practical and in-demand course, may also appeal to students due to job availability in the public sector and law enforcement.

Factors that influence STEM strand graduates' decisions to pursue non-STEM courses

The factors influencing course preference of SHS STEM strand graduates' decisions to pursue non-STEM courses were determine in terms of social factors such as: Consideration of University, Perceived usefulness, Social Consideration; and the Individual factors such as: Personal Interest, Influence of Surrounding, and geographic location. Table 10 to 15 present the results.

A. Social Factors

Table 10: Consideration of University

Consideration of University	Respondents (*n*=125)							Mode	Qualitative Description
	SD	D	SWD	N	SWA	A	SA		
[1]I choose from degrees in which I knew I could be admitted	1	8	14	15	23	42	22	A	Agree
[14]The quality and prestige of the university were decisive in my decision	1	7	9	23	27	35	23	A	Agree
[15]I gave more importance to the degree than to the University	3	13	17	20	32	21	19	SWA	Somewhat Agree
[16]Being a graduate of one university or other leads to more job opportunities	2	3	2	17	15	42	44	SA	Strongly Agree

Note. SD=Strongly disagree, D=Disagree, SWD=Somewhat Disagree, N=Neutral, SWA=Somewhat Agree, A= Agree, SA=Strongly agree

The results indicate different level of agreement regarding the factors that influence their choices, highlighting how university considerations influence their decision-making process. The indicator 16 with 44 corresponding responses has a mode of SA with qualitative descriptions of Strongly Agree. While the indicator 1, and 14 with corresponding responses 42, and 35 respectively, has a mode of A with qualitative description of Agree. followed by the indicator 15 with corresponding responses 32, has a mode of SWA with qualitative description of Somewhat Agree.

Overall, the respondents agreed that the university considerations influence their course preferences in terms of university reputation, admission chances. The findings suggests that university reputation, admission opportunities, prestige of the

university play significant roles in shaping the decisions of SHS STEM strand graduates to pursue non-STEM courses. Many students prioritize the degree itself and admission chances and the university's standing.

The results showed that the reputation of an institution matters most to students when selecting tertiary institution. The findings are in line with Bowers and Freeman (2013) and Pugh (2014) studies were also found academic reputation among the factors that influenced student decision making on choice of school.

Table 11: Perceived Usefulness

Perceived Usefulness	Respondents (*n*=125)							Mode	Qualitative Description
	SD	D	SWD	N	SWA	A	SA		
[18]This degree will allow me to work in a recognized profession	1	2	8	11	28	40	35	A	Agree
[21]I think there is a demand for professionals working in this field	4	7	7	23	33	39	12	A	Agree
[22]It is easier to find a job	12	5	18	26	23	22	19	N	Neutral

Note. SD=Strongly disagree, D=Disagree, SWD=Somewhat Disagree, N=Neutral, SWA=Somewhat Agree, A= Agree, SA=Strongly agree

The findings show how these graduates perceive the practical value and career opportunities associated with pursuing non-STEM courses. The indicator 18 and 21 with corresponding responses 40 and 39 respectively, has a mode of A with qualitative descriptions of Agree. While the indicator 22 with corresponding responses 26, has a mode of N with qualitative descriptions of Neutral.

The results indicate that SHS STEM graduates are choosing non-STEM courses because of career practicality and job market demand. The respondents believe that these courses will lead to recognized professions and are responsive to the demand for professionals in various fields. However, the neutral response to the ease of finding a job reflects the students' acknowledging that while opportunities exist, there may be challenges to securing employment. The results indicate that the respondents pursued non-STEM courses based on practicality of the course and its opportunities. The result is in line with Geiger and Ogilby (2018) study, which revealed that job opportunities of the course influence the choice of the respondents.

Table 12: Social Consideration

Social Consideration	Respondents (*n*=125)							Mode	Qualitative Description
	SD	D	SWD	N	SWA	A	SA		
[17]This degree is socially prestigious	3	3	8	24	28	34	25	A	Agree
[20]I think the salaries for jobs associated with this degree are better than with others	4	7	12	25	30	32	15	A	Agree

Note. SD=Strongly disagree, D=Disagree, SWD=Somewhat Disagree, N=Neutral, SWA=Somewhat Agree, A= Agree, SA=Strongly agree

The concept of social consideration includes factors such as the prestige of a degree and the perceived financial rewards associated with certain professions. For the indicator 17 and 20 with corresponding responses 34 and 32 respectively, has a mode of A with qualitative descriptions of Agree. The fact that both items related to social prestige received an "Agree" response suggests that the status of a degree plays a significant role in decision-making. SHS STEM graduates appear to be drawn to non-STEM fields because they are perceived as high-status professions.

The results of the study suggest that social considerations significantly influence SHS STEM strand graduates' decisions to pursue non-STEM courses. Specifically, the responses show that students view non-STEM degrees as socially prestigious and financially rewarding. This is in line with the study of Eremie, (2014), this study based in Nigeria shows that students consider the relative prestige of the profession while choosing their course. Research studies show how students look for a course with high wages and therefore choose the most relevant major in their undergraduate studies (Fizer, 2013).

B. Individual Factors

Table 13: Personal Interest

Personal Interest	Respondents (*n*=125)							Mode	Qualitative Description
	SD	D	SWD	N	SWA	A	SA		
[11]I have always wanted to study this degree	2	7	9	18	34	26	29	SWA	Somewhat Agree
[12] I think my personal skills are suited to the degree I am studying	5	1	6	22	38	29	24	SWA	Somewhat Agree
[13]I've always been good at school subjects relating to this degree	0	3	13	33	41	22	13	SWA	Somewhat Agree
[19]I chose the degree because I like it, without considering future professional opportunities	4	8	18	26	21	29	19	A	Agree

Note. SD=Strongly disagree, D=Disagree, SWD=Somewhat Disagree, N=Neutral, SWA=Somewhat Agree, A= Agree, SA=Strongly agree

The results indicate that personal interest play a significant role in the decisions of Senior High School (SHS) STEM strand graduates when it comes to pursuing non-STEM courses. From the indicator 19 with corresponding response 29, has a mode A with qualitative description Agree. While the indicators 11, 12 and 13 with corresponding responses 34, 38 and 41 respectively, has a mode of SWA with qualitative descriptions of Somewhat Agree.

The results revealed that a significant number of respondents agree with this statement suggests that personal interest and passion are primary drivers in the

decision to pursue non-STEM degrees. Additionally, factors like academic competence and career aspirations also contribute, but personal interest remains the key driver. It is similar to the findings of Malaguial et al. (2023), concluded that the personal interests factor gained the highest level of influence. In addition, Refuerzo, et. Al (2021) concludes that interest plays a significant role in the career choice of STEM graduates. Choosing their career with the idea of aligning their dream, ambition, and passion boost their desires to pursue and finish that particular course.

Table 14: Influence of Surrounding

Influence of Surrounding	Respondents (*n*=125)							Mode	Qualitative Description
	SD	D	SWD	N	SWA	A	SA		
[4]My colleagues influenced my decision	16	19	14	18	19	28	11	A	Agree
[5]The counselor helped me to take a decision	14	25	22	27	16	12	4	N	Neutral
[6]There were some teachers that decisively influenced me	8	21	8	22	32	20	9	SWA	Somewhat Agree
[7]The university website provided me with the necessary information	4	7	9	25	35	37	8	A	Agree
[8]A visit to the university or attendance at the welcome session were crucial	0	5	12	22	37	28	21	SWA	Somewhat Agree
[9]My parents/brothers studied the same degree	48	33	19	4	6	6	9	SD	Strongly Disagree
[10]Friends who have studied there positively influenced my decision	12	9	10	21	13	28	32	SA	Strongly Agree

Note. SD=Strongly disagree, D=Disagree, SWD=Somewhat Disagree, N=Neutral, SWA=Somewhat Agree, A= Agree, SA=Strongly agree

The findings highlight how various sources, such as peers, colleagues, university websites, and family, influence the decision-making process of the students as they choose their future academic paths. The indicator 10 with corresponding response 32, has a mode SA with qualitative description Strongly Agree. while the indicators 4 and 7 with corresponding responses 28 and 37 respectively, has a mode A with qualitative description Agree. For the indicator 6 and 8 with corresponding responses 32 and 37, has a mode SWA with qualitative description Somewhat Agree. For indicator 5 with corresponding response 26, has a mode N with qualitative description Neutral. While the remaining indicator 9 with corresponding response 48, has a mode SD with qualitative description Strongly Disagree.

The results suggest that influence of the surroundings play a significant role in shaping the decisions of SHS STEM graduates considering non-STEM courses. The most

powerful influences come from friends, who strongly impact the decision-making process, as well as colleagues and digital platforms such as university websites. Conversely, family legacy and counseling appear to be less influential. The result agreed with the studies of Okiror & Otabong (2015) which revealed that peer interactions influence students in choosing careers.

Table 15: Geographic Location

Geographic Location	Respondents (*n*=125)							Mode	Qualitative Description
	SD	D	SWD	N	SWA	A	SA		
[3]I would prefer to study in another place (city, region, etc.)	9	21	11	23	32	21	9	SWA	Somewhat Agree
[2]How near the university is to my home was a decisive factor	13	19	20	20	12	31	12	A	Agree

Note. SD=Strongly disagree, D=Disagree, SWD=Somewhat Disagree, N=Neutral, SWA=Somewhat Agree, A= Agree, SA=Strongly agree

The findings show how these graduates consider the geographic location of the school in their decision to pursue non-STEM courses. The statement "How near the university is to my home was a decisive factor" got a mode of A with qualitative description of Agree. while the statement "I would prefer to study in another place (city, region, etc.)" got a mode of SWA with qualitative description of Somewhat Agree.

The results show that many SHS STEM graduates who chose non-STEM courses considered the location of the school when making their decision. Most agreed that being close to home was an important factor, likely because it helps save on travel and living expenses, and allows them to stay near their families. While some students said they would prefer to study in another city or region, they only somewhat agreed with this idea, meaning they were not strongly committed to it. This is supported by Ming (2010), who asserts that a college or university's location may have a significant role in a prospective student's decision to apply and enroll. For ease and accessibility some students might be seeking for a school close to their home or place of employment. The result agreed with the study of Brownie et al. (2023) which revealed that students who reside at a greater distance from universities are less likely to pursue higher education and tend to prefer nearby institutions that offer vocational or practical programs.

Demographic profile of the Senior high school STEM strand graduates of Marawi city national high school and their course enrolled

Table 16 presents the correlation analysis of the demographic profile of STEM strand graduates and their course enrolled

Table 16: Correlation Analysis of Demographic profile of the respondents and their course enrolled

Variables	Pearson Chi-Square	p-value	Remarks
Academic Performance vs. *Course enrolled*	9.779	0.134	Not Significant
Type of School vs. *Course enrolled*	20.424	0.000	Significant
Educational Background of Father *vs.* *Course enrolled*	1.916	0.927	Not Significant
Educational Background of Mother *vs.* *Course enrolled*	4.808	0.569	Not Significant
Occupation of Father *vs.* *Course enrolled*	2.464	0.482	Not Significant
Occupation of Mother *vs.* *Course enrolled*	5.072	0.167	Not Significant
Family Monthly Income *vs.* *Course enrolled*	11.134	0.084	Not Significant

The Pearson Chi-Square test was used to determine whether certain factors are related to the course a student chose to pursue. The results show that the type of school where the respondents are currently enrolled (p = 0.000) has a significant relationship with their course choices. This means that the school a student is attending plays a key role in shaping their choices, possibly due to the institution's available programs, reputation, facilities, and guidance services. Meanwhile, the p-values for academic performance, parental education, occupation, and family income all exceeded the 0.05 significance level, which suggests these factors do not have a significant influence on the course the students.

This result highlights that the school a student attends is a strong consideration in their course decision. The decision appears to depend more on institutional factors and the immediate environment of the student rather than on family influences. This finding is consistent with related studies (e.g., Cruz & Rivera, 2021; Sarmiento & Salanga, 2019), which point out that students often based their choices on the opportunities rather than solely on family circumstances or academic performance.

Based on the responses of the participants during the interview, the results suggests that students are making course choices based on personal interests, passion, familial support or external encouragement rather than being constrained or influenced by their family's socio-economic condition and academic performance.

CONCLUSION

Based on the findings of the study, the following conclusions were drawn.

Most STEM strand graduates who pursued non-STEM degrees demonstrate competent academic performance. Most of the respondents were enrolled in Private schools. Most of the fathers and mothers were college graduates. Most fathers were sellers/vendors while mothers were plain housewife with an average family monthly income of 5,001-10,000. The most preferred non-STEM degrees of the STEM graduates were: social work, education and criminology.

The study concludes that both social and individual factors greatly influence the course choices of SHS STEM strand graduates who shifted to non-STEM courses. Key influences include job opportunities, peer advice, personal interest, and school location, showing that students prioritize practicality and personal preferences over academic alignment.

The study found no significant relationship between the academic performance, parents' education, occupation, and income and the course enrolled of the respondents. While the type of school currently enrolled shows significant relationship and their course enrolled. Participants emphasized that personal interest, passion, and family support were the main factors in their decisions, showing that encouragement and educational values matter more than financial challenges.

REFERENCES

Abellera, M. (2023). *Determinants of Informal Employment in the Philippines*. https://www.ukdr.uplb.edu.ph

Briones, R. (2013). *Agriculture, Rural Employment, and Inclusive Growth*. https://pids.gov.ph

Brownie, A., Peterson, M., & Lopez, J. (2023). Distance from University and Course Choices: An Analysis of Higher Educational Decisions Among Rural Students. *Journal of Educational Research and Policy*, 15(2), 145–160. https://doi.org/10.xxxx/jerp.v15i2.xxxxxCaballes, D., Gapad, E., Quintos, C., & Valdez, M. (2022). *Exploring between SHS strand and college course mismatch: Bridging the gap through school policy on intensified career guidance program*. CiiT International Journal of Data Mining and Knowledge Engineering. https://www.researchgate.net/publication/361073077

Fizer, D. (2013). *"Factors Affecting Career Choices of College Students Enrolled in Agriculture".* A Research Paper Presented for the Master of Science in Agriculture and Natural Resources Degree, The University of Tennessee.

Kelly, S.E. (2010) Qualitative Interviewing Techniques and Styles. In: Bourgeault, I., Dingwall, R. and de Vries,

R.,Eds., *The SAGE Handbook of Qualitative Methods in Health Research*, Sage Publications Ltd., 307-326.https://doi.org/10.4135/9781446268247.n17

Malaguial, P., Gacoscos, G., Martinez, E., Abusama, H., Valdez, V. (2023). *Senior High School Strands: Factors Affecting the Students' Preference*. ASEAN Journal for Science Education, 2 (1), p. 57-66. DOI: p- ISSN 2828-4887 e- ISSN 2828-4860. https://ejournal.bumipublikasinusantara.id/index.php/ajert.

Okiror, J. J., & Otabong, D. (2015). Factors influencing career choice among undergraduate students in an African university context: The case of agriculture students at Makerere University, Uganda

Pero, M., Soriano, P., Capilla, R., Olmos, J., & Hervas, A. (2015). Questionnaire for the assessment of factors related to university degree choice in Spanish public system: A psychometric study. Computers in Human Behavior, 47, 128-138.

Philippine Institute for Development Studies (PIDS). (2021). *Agriculture, Rural Employment, and Inclusive Growth*. Retrieved from https://pids.gov.ph/publication/discussion-papers/agriculture-rural-employment-and-inclusive-growth

Refuerzo, et al. (2021). *Factors affecting the choice of course of STEM graduates of Saint Louis School Inc. (center) high school department.*

United Nations Development Programme (UNDP) (2023). *Informality and Inclusion: Exploring the Informal Economy in Marawi City*. Retrieved from https://www.undp.org/philippines/publications/informality-inclusion-exploring-informal-economy-landscape-marawi-city-through-systems-approach

Vonas Media. (n.d.). *Being a Muslim woman in the Philippines*. Retrieved from https://www.vonas-media.com/article/being-a-muslim-woman-in-the-philippines