

# Determining Roles of Socio Demographic Constructs on Factors Affecting Preferences of Technology and Livelihood Education Track of Grade 10 Students at Maddela Comprehensive High School

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**Abstract:** This study aimed to determine the roles of socio-demographic constructs on factors influencing preferences of Grade 10 Technology and Livelihood Education students at Maddela Comprehensive High School, basis for development of information material. This quantitative study employed descriptive method, using survey questionnaire to gather data from 209 randomly selected students. The sample predominantly consisted of females (45%), including 24.4% LGBTQI+ students, with most aged 15-18 years. Nearly half of the students achieved a General Weighted Average between 85-90. Cultural diversity was evident, with Ifugao (50.70%) and Ilokano (34.00%) being the primary cultural affiliations, and Born Again Christians (54.10%) representing the largest religious group. The level of influence on the preference of the students in terms of job opportunity influence, personal interest, family influence, and peer influence is very high. The study also revealed significant correlations between age and track selection factors. Older students demonstrated increased consideration of job opportunities and decreased family influence in their decision-making. Family income showed a weak but significant positive correlation with family influence. As a practical intervention, the study proposed a comprehensive career guidance seminar with information material to support students' educational decision-making, emphasizing self-discovery, career exploration, and goal-setting for the TVL track.

**Keywords:** Factors influencing track preferences, technology and livelihood education, socio-demographic constructs.

## 1. Introduction

The document starts here. Copy and paste the content in the paragraphs. In an increasingly interconnected world, vocational education has played a critical role in equipping individuals with the skills needed for employment and economic growth.

Internationally, the emphasis on vocational education is seen in various countries' policies that aim to bridge the skills gap in the labor market. These policies align with the United Nations' Sustainable Development Goals (SDGs), particularly Goal 4: Quality Education, which advocates for inclusive and equitable quality education and promotes lifelong learning opportunities

for all, and Goal 8: Decent Work and Economic Growth, which emphasizes the promotion of sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.

The Philippines has made significant strides in promoting vocational education through various initiatives. The Department of Education (DepEd) and the Technical Education and Skills Development Authority (TESDA) have implemented programs to enhance the quality and accessibility of vocational education, aligning with the National Research and Development Agenda for Technology and Livelihood Education (NRATE). These efforts aimed at addressing the country's demand for a skilled workforce and reducing inequalities in educational access, contributing to the achievement of SDG 10: Reduced Inequalities.

Locally, at Maddela Comprehensive High School, the Technology and Livelihood Education (TLE) track has emerged as a significant educational pathway. This study aimed to examine the factors that influenced Grade 10 students in their choice of the TLE track. Specifically, it focused on socio-demographic factors such as family income, parents' occupations, academic performance, gender, and cultural and religious affiliations, as well as personal influences like job opportunities, peer pressure, and family guidance. These socio-demographic factors significantly shaped students' preferences for academic versus vocational tracks, influencing their career decisions. Understanding these factors helped identify gaps and barriers that limited or encouraged the pursuit of vocational education, particularly for students from lower-income backgrounds or rural areas.

A notable challenge in promoting vocational education was the cultural stigma associated with it. In many societies, including the Philippines, there was a perception that vocational careers were less prestigious than academic ones (Monerva et al., 2019). This view contributed to the preference for academic tracks, especially among students from families with higher

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educational backgrounds (Brown & Brooks, 1996). However, vocational education played a critical role in economic development by producing a skilled workforce, making it an essential educational pathway that deserved equal promotion to academic tracks (Holland, 1997).

Environmental factors also impacted students' decisions to choose vocational education. Students from lower-income or rural areas, such as Maddela, faced challenges like limited access to quality vocational training resources, outdated curricula, and financial constraints (Divino, 2020). Research highlighted that economically disadvantaged students encountered barriers like lack of exposure to industry-related training, fewer job opportunities in their immediate communities, and limited career guidance (Ferrer et al., 2022).

While many studies examined socio-economic and cultural factors influencing educational choices, fewer explored these factors' intersectionality, particularly in rural contexts like Maddela (Mariz et al., 2022). This research filled gaps by investigating how family background, peer influence, personal interests, and job opportunity perceptions collectively impacted students' preferences for vocational education (Nishtha, 2023). Additionally, it highlighted barriers such as limited infrastructure and financial constraints, particularly relevant for students in rural and low-income areas (Divino, 2020; Till et al., 2016).

By focusing on the local context of Maddela Comprehensive High School, this study contributed localized insights often overlooked in generalized research on vocational education. Hence, this is also aligned to the College of Teacher Education's (CTE) research agenda, Teaching and Learning. The findings may guide educational reforms tailor to the needs of rural students, ensuring that the TLE track was promoted as a viable and desirable pathway for all learners.

## 2. Methodology

This study aimed to examine how socio-demographic factors influence Grade 10 students' preferences for the Technology and Livelihood Education (TLE) track at Maddela Comprehensive High School in Población Maddela, Quirino. Using a quantitative, descriptive research design, the study sought to identify patterns, correlations, and trends in students' decision-making processes, focusing on factors such as family income, parental occupation, gender, academic performance, and cultural influences.

The study was conducted with 209 Grade 10 students selected through stratified random sampling from the total population of 456 students across 10 sections. Data were collected using a survey questionnaire, which had strong internal consistency. The questionnaire gathered information on factors influencing students' track preferences and used a four-point Likert scale to measure responses.

Maddela Comprehensive High School was chosen as the research environment because of its role in offering specialized education in both academic and vocational fields.

The data were analyzed using various statistical techniques, including frequency counts, weighted means, and Pearson's correlation to explore relationships between variables.

## 3. Results and Discussion

*A. The Socio-Demographic Profile of the Grade 10 Technology and Livelihood Education Students in Terms of Family Monthly Income, Occupation of Father, Occupation of Mother, Academic Performance, Gender (Male, Female, LGBTQ+), Cultural Affiliation, Religious Affiliation, Habits and Past Time, Special Skills, and Age*

The study on the socio-demographic profile of Grade 10 Technology and Livelihood Education (TLE) students reveals several factors influencing their educational preferences. Gender-wise, a significant portion of students are female (45%), followed by male (30.6%) and LGBTQ+ students (24.4%), indicating a stronger inclination among females toward the TLE track. This aligns with prior research suggesting that females are more likely to pursue vocational education. Age distribution shows that most students are within the 17–18-year range (37.3%), with a notable portion (48.8%) aged 19–20, which could suggest that older students may have clearer career goals due to academic repetition. Regarding academic performance, most students fall in the "Good" range (49.3%), with smaller percentages in the "Satisfactory" (25.4%) and "Very Good" (25.4%) categories. This suggests that TLE tends to attract students with moderate to above-average academic performance who seek practical, hands-on learning to support their future careers.

Family background plays a significant role in shaping students' choices. The majority of fathers are employed as professionals (42.6%), with others working as farmers (31.6%) or entrepreneurs (25.8%). Likewise, most mothers are professionals (47.8%), followed by housewives (31.1%). These varying parental occupations suggest a socio-economic diversity among the respondents, with many coming from middle-income households. In terms of income, the majority of families earn between P16,000-P25,000 monthly, which may influence students to choose vocational tracks like TLE that offer practical skills for livelihood. Cultural and religious factors also appear to play a role, with the majority of respondents identifying as Ifugao (50.7%), followed by Ilokano (34%) and Igorot (15.3%), suggesting that cultural values might influence their preferences for hands-on learning. Additionally, most students are Born Again Christians (54.1%), which may shape their educational choices based on values such as hard work and community service.

When it comes to habits and pastimes, dancing (42.6%) and online gaming (32.1%) are the most popular activities, indicating an interest in creative and technological pursuits, which may align with the practical and digital aspects of TLE. Special skills in arts (44.5%) and dancing (39.2%) are prevalent, further supporting the idea that students may be drawn to the creative and vocational opportunities that TLE offers. Overall, the socio-demographic profile of the respondents highlights that factor such as gender, age, academic performance, family background, cultural and religious affiliations, and personal interests all play a significant role in shaping students' decisions to pursue the TLE track. These findings suggest that students from middle-income families,

with a variety of cultural backgrounds and academic abilities, are particularly inclined to select a vocational education path like TLE that offers practical skills for their future careers.

#### *B. Level of Influence on the Preference of the Students in Terms of Job Opportunity Influence, Personal Interest, Family Influence, and Peer Influence*

The study on the factors influencing students' decision to pursue the Technology and Livelihood Education (TLE) track reveals several key motivators, with job opportunities, personal interest, family influence, and peer influence all playing significant roles.

Job opportunity influence received a very high rating of 3.65, indicating that students place a strong emphasis on the potential for employment when selecting the TLE track. They perceive TLE as a pathway to stable and immediate job opportunities in various industries such as agriculture, hospitality, technology, and trade. This highlights the students' awareness of the direct link between their educational choices and future job prospects. The high value placed on job opportunities suggests that educational institutions should emphasize career outcomes and strengthen partnerships with local industries to align TLE programs with market demands. Providing internships and industry exposure would also enhance the students' understanding of how TLE education translates into viable career paths.

Personal interest was another highly rated factor with a mean score of 3.61. This suggests that students are motivated by their passion and personal preferences when choosing the TLE track. Students are particularly drawn to areas such as culinary arts, technology, agriculture, and design, seeing TLE as an opportunity to explore and develop their interests. This implies that TLE programs should offer a wide range of specializations and electives to accommodate diverse student interests. Schools should also provide extracurricular opportunities and workshops that allow students to further explore their passions, fostering greater engagement and motivation.

Family influence emerged with a very high rating of 3.66, showing that students are significantly influenced by their families in their educational decisions. Parents often encourage their children to pursue vocational education, believing it offers practical skills and better job prospects. The strong role of family influence suggests that schools should engage parents more actively in the educational process, providing them with information about the benefits of vocational education. Workshops and career counseling sessions that involve families could help parents understand the value of TLE, ultimately supporting their children's decisions.

Finally, peer influence was the most strongly rated factor with a mean score of 3.78. This indicates that students are highly influenced by their peers when choosing the TLE track. Adolescents are particularly susceptible to peer pressure, and if their friends or social groups are inclined toward vocational education, they are more likely to follow suit. The high impact of peer influence suggests that schools could harness this dynamic by implementing peer mentorship programs and student-led clubs focused on promoting vocational education.

By fostering a supportive peer culture around TLE, schools can increase student engagement and enrollment in the track.

#### *C. Significant Correlations Among the Selected Socio-Demographic Profile and the Level of Influence of Those Factors on the Track Reference of the Respondents*

*Job Opportunity Influence and Age.* A slight positive correlation (0.162) was found between age and job opportunity influence, with a statistically significant p-value of 0.019. This suggests that older students place a slightly higher importance on the job opportunities provided by the TLE track. As students mature, they may become more aware of the career outcomes and stability offered by vocational education. This developmental shift indicates that schools should target career-oriented messaging and guidance to older students, offering career fairs, job shadowing experiences, and connections with alumni in TLE-related fields.

*Personal Interest and Age.* The correlation between age and personal interest was very weak (0.074), and the p-value (0.290) indicates that the relationship is not statistically significant. This suggests that age does not substantially affect students' personal interest in the TLE track. Students of all ages seem equally motivated by their personal preferences and passions. Educational institutions should continue to offer a diverse range of specializations and electives within the TLE curriculum to cater to these personal interests, fostering engagement across age groups.

*Family Influence and Age.* A slight negative correlation (-0.173) was found between age and family influence, with a significant p-value of 0.012. This indicates that as students age, they tend to rely less on family input when making educational decisions. Older students may become more independent in their decision-making. Educational institutions should consider empowering older students to make informed decisions based on their personal goals and interests, while continuing to engage younger students and their families in the decision-making process.

*Peer Influence and Age.* The correlation between age and peer influence (0.064) was very weak, with a p-value of 0.357, indicating no significant relationship. This suggests that peer influence remains a constant factor for students across different age groups. Educational institutions can leverage peer support systems to encourage students to pursue the TLE track, using peer mentorship programs and student-led clubs to create a supportive environment for students of all ages.

*Job Opportunity Influence and Academic Performance.* The correlation between academic performance and job opportunity influence was very weak (0.050), and the p-value (0.470) indicates no statistical significance. This implies that students' perceptions of job opportunities in the TLE track are not significantly influenced by their academic performance. Regardless of their academic standing, students are likely to view TLE as a viable pathway to stable employment. Educational institutions should emphasize career-oriented education for all students, ensuring that job opportunities are equally highlighted for students at all academic levels.

*Personal Interest and Academic Performance.* The

correlation between academic performance and personal interest was very weak (0.012), with a p-value of 0.862, indicating no statistical significance. This suggests that personal interest in TLE is independent of academic performance. Regardless of their grades, students remain motivated by their passions and interests. Schools should continue to offer personalized learning experiences and extracurricular activities that cater to students' individual interests, regardless of academic ability.

*Family Influence and Academic Performance.* A very weak negative correlation (-0.086) was found between academic performance and family influence, with a p-value of 0.215, indicating no statistical significance. This suggests that family influence is not significantly affected by students' academic performance. Family support for students' educational decisions remains consistent, regardless of grades. Educational institutions should continue to engage families in the decision-making process, offering workshops and counseling sessions that help parents understand the value of vocational education.

*Peer Influence and Academic Performance.* The correlation between academic performance and peer influence was also very weak (0.043), with a p-value of 0.538, indicating no statistical significance. This implies that peer influence is not influenced by academic performance. Peer relationships and social dynamics remain crucial motivators for students, regardless of their academic abilities. Schools should foster a positive peer-driven environment to encourage TLE enrollment, creating peer mentoring programs and peer-led career counseling initiatives.

*Job Opportunity Influence and Family Income.* The correlation between family income and job opportunity influence was very weak (0.111), with a p-value of 0.110, indicating no statistical significance. This suggests that family income does not significantly impact students' perceptions of job opportunities in the TLE track. Educational institutions should ensure that all students, regardless of their family income, are equally aware of the career opportunities available through TLE. This includes clear communication of job market integration and career benefits for students from all income backgrounds.

*Personal Interest and Family Income.* A very weak correlation (0.013) was found between family income and personal interest, with a p-value of 0.856, indicating no statistical significance. This suggests that personal interest in the TLE track is independent of family income. Students from different financial backgrounds are equally likely to pursue TLE based on their personal interests. Schools should provide equal access to interest-driven learning opportunities, ensuring that students from all socioeconomic backgrounds can explore their passions.

*Family Influence and Family Income.* A slight positive correlation (0.177) was found between family income and family influence, with a statistically significant p-value of 0.010. This suggests that students from higher-income families may be more likely to seek guidance from their families when choosing the TLE track. Families with higher incomes may have more resources and time to engage in their children's

educational decisions. Schools should consider involving families more in the decision-making process, particularly in wealthier communities where parents may have greater resources to support their children's educational choices.

*Peer Influence and Family Income.* The correlation between family income and peer influence was very weak (-0.064), with a p-value of 0.355, indicating no statistical significance. This suggests that peer influence is not significantly impacted by family income. Peer relationships continue to play a significant role in students' decisions to pursue the TLE track, regardless of their socioeconomic background. Schools should continue to foster a positive peer environment that encourages students to engage with the TLE track, regardless of their family's financial status.

#### *D. Information Material Developed to Enhance Interest for TVL Track*

The provided informational material dissemination and information material underscore the wide range of opportunities and practical skills associated with the Technical-Vocational-Livelihood (TVL) track, thereby fostering interest and engagement among students.

#### *Proposed Information Material Dissemination*

##### *A. Basic Information:*

*Title of Seminar:* A Career Guidance Seminar for Grade 10 Students

*Title of Activity:* Career Guidance and Information Dissemination for Technology and Livelihood track

*Proponent:* Babylyn S. Ramos

*Date:* July 7, 2024

*Venue:* Conference Hall

##### *1) Rationale*

The transition from Junior High School to college or the workforce is a critical juncture for students. Without proper guidance and preparation, they may feel lost, make uninformed decisions, or struggle to launch their careers successfully. This career guidance seminar aims to equip Grade 10 students with the knowledge, skills, and tools necessary to navigate this transition confidently and intentionally. Self-Discovery is crucial because understanding one's interests, values, skills, and personality traits lays the foundation for identifying well-suited career paths. Self-assessments and reflective activities enable students to gain self-awareness and explore potential career matches aligned with their unique profiles. Exploring Careers exposes students to the wide array of career options available, providing an overview of various industries, job roles, and emerging trends.

This comprehensive career guidance seminar aims to empower Grade 10 students with the self-knowledge, career exploration skills, goal-setting abilities.

##### *2) Objectives*

In this program, we aim to empower students by guiding them to understand their interests, values, skills, and personalities, explore diverse Technology and Livelihood Track."

- Help students understand their interests, values, skills,

Table 1

Time	Activities	Responsible TLE Teachers
8:00-9:00 AM	Registration	Mrs. Remalyn T.Mina,
9:00-9:30 AM	Opening Program	Mrs. Elisa Munhinap
	Invocation	Mr. Mark Gil Guillermo
	Opening remarks	Sir Rodel F. Dinamling, MT II-TLE
	Statement of Purpose	Sir Leejor Robledo
9:30-12:00NN	Seminar proper Topics: 1. Mental Health and its importance in young generation.	Sir Chester Bu-ucan Guidance-Counselor (Junior High School Department)
	Lunchbreak	
1:00-2:30 PM	2. Parental Guidance in Teenage life	Ma'am Consuelo B. Pascual-Guidance Counselor Senior (High School Department)
2:30-3:00PM	3. Career formation. Information dissemination of Technology and Livelihood Education	Sir Rodel F. Dinamling MTII-TLE
3:00-3:30PM	Distribution of Information Materials for Technology and Livelihood Education Track	Babylyn S. Ramos
3:30-4:00PM	Words of Gratitude and Closing Remarks	Albert T. Ballesteros

and personalities.

- Provide an overview of different career options and paths.
- Teach students how to research careers and set career goals.

### 3) *Methods and Approaches*

See table 1.

### 4) *Participants*

Grade 10 Students

### 5) *Manpower*

Directors-in-Charge: Dr. Jennifer T. Tolentino, PhD.

School Principal II

*Committees:*

- *Communication and Invitation* (Chair: Mr. Mark Gil Guillermo)
- *Program, Certificates and Documentation* (Chair: Babylyn S. Ramos)
- *Hall and Sound Preparation* (Chair: Tony Arucan)
- *Food* (Chair: Remalyn Mina)
- *Registration, Attendance and Evaluation* (Chair: Babylyn S. Ramos)

### 6) *Expected Output*

Here are the expected outputs from the proposed Career Guidance Seminar for Grade 10 students:

1. Self-Discovery Outputs:
  - Completed self-assessments (interests, values, skills, personality)
  - Written reflections on personal strengths, weaknesses, goals
2. Goal Setting and Planning Outputs:
  - SMART career goals defined on what Technology and Livelihood Education track they prefer.
  - Personal vision and mission statements
  - Skills to develop further identified

### 7) *Budgetary Requirement*

See table 2.

Table 2

Food 400 participants * AM snack	Php 1500.00
Certificates & Printed Materials	Php 1000.00
Other unexpected expenses	Php 500.00
<b>TOTAL</b>	<b>Php 2000.00</b>
Prepared by:	Noted by:
<b>BABYLYN S. RAMOS</b> Proponent	<b>RODEL F. DINAMLING, Ph.D.</b> Master Teacher II (TLE)
Recommending Approval: <b>MELINDA C. GARPIDA, Ph.D.</b> Head Teacher III	
Approved: <b>JENNIFER T. TOLENTINO, Ph.D.</b> School Principal II	







Fig. 1. Information material for technology and livelihood education

#### 4. Conclusions

1. Female students dominate the TLE track, with most students aged 19-20 and a good academic standing. The prevalence of Ifugao students may indicate a cultural inclination towards practical, hands-on learning. This suggests that educational programs, especially in TLE, should consider cultural influences and age demographics when developing curriculum to align with students' interests and backgrounds.
2. Peer influence has the most significant impact, followed by family influence, job opportunity, and personal interest. Educational and career guidance programs should focus on the role of peer and family dynamics to better support students in making informed choices about their future paths.
3. Job opportunity and family influence significantly correlate with age, while personal interest and peer influence do not. Age-appropriate guidance and career counseling may be necessary, especially focusing on job opportunities and family expectations. None of the factors significantly affect academic performance. This suggests that external factors, such as family and peer influences, do not necessarily translate into better academic results, indicating a need for targeted academic support. Family influence shows a significant correlation with family income, while other factors do not. The role of

family in career decisions could be crucial, particularly in families with higher income, and this should be considered in career counseling and track selection processes.

4. Informational materials were developed and proposed. Effective dissemination of information through well-crafted materials can support better decision-making and ensure students are aware of their options, especially in vocational and career tracks like TLE.

#### 5. Recommendations

1. Educational programs, particularly in TLE, may integrate cultural elements and consider age demographics when designing the curriculum. This may help ensure the content is relevant and engaging, aligning with the interests and backgrounds of students, especially those from cultural groups like Ifugao.
2. Career guidance programs may address the strong influence of peers and family on students' decision-making. By incorporating strategies to engage families and peer groups, these programs may provide more effective support in helping students make well-informed educational and career choices.
3. Career counseling and guidance based on students' age may be implemented. Special attention may be given to job opportunities and family expectations, ensuring that students at different age levels receive appropriate guidance to navigate their educational and career paths. Schools may focus on providing targeted academic support to help students improve their academic outcomes. This support may include tutoring, study groups, or personalized learning plans.
4. To facilitate better decision-making, the development and dissemination of well-crafted informational materials may be prioritized. These materials may help students explore their options, particularly in vocational tracks like TLE, ensuring they make informed choices about their education and future careers.

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