

A Study on the Advantage and Difficulties of Implementing Accounting as A Substitute for Specialized TLE Subject in Grade 10 at Pilar College Zamboanga City

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A Research Study Presented to the Faculty of The College of Teacher Education Western Mindanao State University Zamboanga City

ABSTRACT : This Study determined and examined the perceived academic advantages and difficulties of implementing Accounting as a substitute for the specialized Technology and Livelihood Education (TLE) subject among Grade 10 students at Pilar College Zamboanga City. A Quantitative descriptive- correlation research was utilized, and the data collected primarily through survey questionnaire of 60 Grade 10 respondents of the said school, to gain a comprehensive understanding of their individual perceptions on this study. Descriptive statistics such as frequency, percentage, and mean were used to determine the level of student's perceptions regarding academic advantages and difficulties. An independent sample t-test was employed to examine significant differences in perceptions when grouped according to sex, while Pearson product-moment correlation was used to analyze the relationship between perceived academic and difficulties. The findings revealed that students generally have a perception of the academic advantages of accounting, particularly in enhancing financial literacy, decision making, skills, entrepreneurship awareness, and analytical abilities. The independent sample t-test showed no significant difference in perceptions of academic advantages and difficulties when grouped according to sex. Moreover, Pearson correlation analysis indicated a very weak positive relationship between perceived academic advantages and difficulties which was not statistically significant. Overall, the study concludes that Grade 10 students perceive accounting favorably as a substitute for the specialized TLE subject. However, these perceptions do not significantly differ according to sex, and there is no significant relationship between perceived academic advantages and difficulties.

I. INTRODUCTION

There have been constant changes in the present times, including the economic and educational landscape. Hence, different schools in the Philippines must equip their students with practical skills that would prepare them for future demands. At Pilar College of Zamboanga City, the school offers Technology and Livelihood Education (T.L.E) subjects with specialized programs that focus on livelihood opportunities and hands-on competencies such as technical skills (e.g., cookery, dressmaking, ICT), Entrepreneurial skills, Life skills, and Career preparation.

However, these livelihood skills may not fully address the need for financial literacy and business-related competencies, which highlights the importance of integrating Accountancy into the K to 12 curricula to enhance financial literacy among Filipino students. Moreover, there is more to accounting than just numbers, it is an organized approach to learning, managing, and communicating financial data.

Therefore, implementing Accounting as a substitute for specialized Technology and Livelihood Education (T.L.E) subjects in Grade 10 is rooted in the need to develop students' financial education and aligns with national efforts to improve financial literacy in the Philippines. Furthermore, the study of Dimaunahan (2025) revealed a decrease in financial literacy among Filipino young adults, indicating concerning issues in financial knowledge, money management, and decision-making.

On the other hand, challenges arise in implementing accounting. Students often struggle with its abstract concepts compared to the hands-on nature of TLE. Limited teacher training and lack of instructional materials also hinder effective teaching (Tan, 2021; Mendoza, 2025). Moreover, reducing practical livelihood training may affect students' skills and motivation (Fernando, 2022).

However, Legaspi (2018) found that with proper techniques and resources, accounting can provide significant benefits, enhancing problem-solving, analytical thinking, and business readiness. This suggests that integrating accounting into education, when supported, can complement rather than diminish practical skills.

Although the integration of accounting as a substitute for specialized TLE subjects has been recognized as a potential step toward enhancing financial literacy, there is limited research on its actual advantages and difficulties in the Philippine context. In particular, there is no existing study at Pilar College of Zamboanga City that examines how this substitution influences Grade 10 students' learning experiences, academic performance, and skill development. The lack of evidence on both the challenges faced such as teacher readiness, availability of resources, and students' adjustment to more abstract concepts and the potential benefits such as improved financial literacy and analytical skills creates a gap in understanding its overall impact.

This study, therefore, aims to explore the perceived advantages and difficulties of implementing Accounting as a substitute for the specialized TLE subject in Grade 10 at Pilar College Zamboanga City. By examining the perspectives of the students, the research seeks to provide useful insights for school leaders in making data-driven decisions to enhance curriculum relevance.

II. STATEMENT OF THE PROBLEM

This study aims to determine the Advantage and Difficulties of Implementing Accounting as A Substitute for Specialized TLE Subject in Grade 10 at Pilar College of Zamboanga City during the school year 2025 - 2026.

1. What are the perceived academic advantages on implementing accounting as a substitute for specialized TLE subject among the Grade 10 students at Pilar College Zamboanga City?
2. What are the perceived academic difficulties on implementing accounting as a substitute for specialized TLE subject among the Grade 10 students at Pilar College Zamboanga City?
3. Is there a significant difference in the perceived academic advantages and difficulties on implementing Accounting as a substitute for specialized TLE subject among Grade 10 students at Pilar College Zamboanga City?

Hypothesis

Ho: There is no significant difference in the perceived academic advantages and difficulties on implementing Accounting as a substitute for specialized TLE subject among Grade 10 students at Pilar College Zamboanga City.

Significance of the Study

This study focuses on determining the Advantage and Difficulties of Implementing Accounting as A Substitute for Specialized TLE Subject in Grade 10 at Pilar College of Zamboanga City. The results of this study will provide valuable insights and benefits for the following:

Pilar College of Zamboanga City

The study will equip the institution with empirical data to assess the effectiveness and challenges of substituting Accounting for TLE subjects. This will aid in curriculum planning, resource allocation, and aligning with national standards.

School Administrators

Administrators will benefit from understanding the practical implications of this substitution, enabling informed decisions regarding teacher training, instructional materials, and support systems needed to optimize student learning outcomes.

Students

Students stand to gain from a curriculum revised to enhance financial literacy and analytical skills alongside practical competencies. Recognizing the challenges, they face allows for targeted interventions to improve engagement and academic success in this subject area.

Teachers

Accounting and TLE educators will benefit from knowledge on perceived student difficulties and advantages, empowering them to refine teaching strategies, improve instructional delivery, and advocate for necessary professional development.

Future Researchers

This study will contribute foundational information to the limited body of localized research on curriculum innovations in secondary education, particularly regarding the substitution of accounting for livelihood skills training. It fosters opportunities for further studies that could explore broader educational reforms and their impacts.

Scope and Delimitation

The general intent of this study focuses on examining the perceived academic advantages and difficulties of implementing Accounting as a substitute for specialized Technology and Livelihood Education (TLE) subjects among Grade 10 students at Pilar College of Zamboanga City during the academic year 2025–2026.

The study will use a total enumeration sampling, involving all Grade 10 students currently enrolled in the specialized TLE subject. The data will be collected primarily through survey to gain a comprehensive understanding of their perceptions regarding this curriculum change.

A descriptive-correlational research design will be utilized in this study to analyze the relationship between students perceived academic advantages and difficulties in learning Accounting as a substitute for specialized TLE subject. This approach allows for the identification of patterns and correlations between the perceptions that may inform curriculum and instructional improvements.

This study is delimited to Grade 10 students of Pilar College of Zamboanga City only. It does not include students from other grade levels or other schools. The research focuses on academic perceptions and does not explore external factors such as home environment or socioeconomic status.

III. REVIEW OF RELATED LITERATURE

Students

Students stand to gain from a curriculum revised to enhance financial literacy and analytical skills alongside practical competencies. Recognizing the challenges, they face allows for targeted interventions to improve engagement and academic success in this subject area.

Technology and Livelihood Education (TLE)

Technology and Livelihood Education (TLE) is a comprehensive learning area in the Philippine basic education curriculum designed to develop practical skills and livelihood competencies among students. According to the Department of Education (DepEd, 2019), TLE covers various fields such as Home Economics, Agri-Fishery Arts, Industrial Arts, and Information and Communications Technology to prepare learners for productive engagement in society and future employment. This broad coverage ensures that students acquire skills directly applicable to everyday life and potential careers.

Furthermore, a study by Tan (2021) in Northern Samar highlights that TLE not only teaches technical skills but also entrepreneurial knowledge essential for self-employment and small business management. It integrates hands-on activities with concepts of marketing, sales, bookkeeping, and accounting, which are necessary for students to succeed as future entrepreneurs. The study stresses the importance of contextualizing TLE instruction to local needs and available resources.

Similarly, Pamor et. al. (2024) emphasized that the effectiveness of TLE instruction heavily depends on teacher competence, availability of instructional materials, and the integration of technology in teaching. Their phenomenological study among TLE teachers in Davao del Norte revealed challenges linked to insufficient resources and highlighted strategies like pedagogical diversity and professional development to improve learner outcomes.

Additionally, research by Mamayabay (2024) examined students' motivations and challenges in specializing in TLE courses. It found that while students are motivated by the promise of practical skills and livelihood readiness, they face difficulties including limited facilities, lack of equipment, and curriculum constraints that affect engagement and performance. These findings point to a need for curriculum improvements and increased support to maximize the benefits of TLE.

Moreover, a study conducted in Samar Island by De la Cruz et al. (2019) revealed significant positive relationships between TLE students' attitudes, teacher qualifications, and their academic performance. This suggests that teacher expertise and support play critical roles in enhancing the quality of TLE education.

Despite the importance of TLE in Philippine education, Mendoza (2025) noted that certain limitations exist regarding instructional time, material shortages, and insufficient emphasis on financial and business literacy within the specialized subjects. These gaps have prompted schools like Pilar College of Zamboanga City to explore the substitution of specialized TLE subjects with courses such as Accounting to better address financial literacy needs.

Thus, the integration of Accounting into the TLE curriculum aligns with national efforts to improve financial literacy among students (DepEd, 2021). Accounting education offers structured approaches to managing and communicating financial information, which complements the livelihood skills taught in TLE (Legaspi, 2018). This substitution aims to balance practical technical skills with essential financial knowledge, fostering more comprehensive student preparation for both academic and real-world economic challenges.

Accounting as a Substitute for Specialized TLE Subjects

Accounting is defined as the systematic process of recording, analyzing, and communicating financial data essential for informed decision-making in business and personal finance (Weygandt et.al, 2019). Its integration into the secondary education curriculum has been increasingly recognized as vital for developing students' financial literacy and managerial acumen (Harper & Yuthas, 2017). Accounting education fosters critical skills in budgeting, auditing, and financial reporting, which prepare students for diverse career opportunities beyond mere technical trade skills.

In the context of secondary education, particularly in the Philippines, there is an emerging trend of supplementing or substituting parts of Technology and Livelihood Education (TLE) with accounting courses to enhance learners' economic competencies (Department of Education, 2021). This shift responds to the need for financial education that traditional TLE programs focused mainly on technical crafts may not sufficiently provide (Tan, 2021).

Moreover, international perspectives support this substitution. The Organisation for Economic Co-operation and Development (OECD, 2020) highlights financial literacy programs that incorporate accounting principles as instrumental in preparing youth for economic challenges and global competitiveness. Incorporating accounting within secondary schooling aligns Philippine education with such international best practices.

The role of accounting education in skill development is further underscored by Kermis (2018), who advocates that exposure to accounting early in education enhances analytical thinking, ethical judgment, and quantitative reasoning. These competencies enable students to transition more effectively into business-related higher education or workforce sectors.

However, challenges remain in the effective implementation of accounting to replace TLE subjects. Research by Tomacruz et. al. (2023) found that successful curricular integration depends heavily on teacher preparedness and availability of appropriate learning resources. They recommend increased teacher training and investment in instructional materials to maximize the benefits of accounting education.

Thus, Long et. al. (2022) emphasize that accounting substitution can foster better student engagement by connecting abstract financial concepts to practical, real-world applications, thus maintaining the experiential learning elements central to TLE. Their research suggests that with the right pedagogical tools, accounting education enriches rather than diminishes hands-on competencies.

Students' Academic Performance

Academic performance in accounting is often influenced by factors such as prior exposure, intellectual ability, and effort. Ballester (2012) demonstrated that students who previously studied accounting in secondary education perform better in financial accounting courses at higher levels. This is supported by findings that cognitive skills and study habits also significantly affect success in accounting (Mkhize, 2022).

In the area of Technology and Livelihood Education (TLE), Dela Cruz (2024) reported that students' academic performance correlates with preferred learning styles, with auditory learners performing comparatively well. Material availability and family academic support were also linked to better TLE performance. This highlights how external factors influence learning outcomes in TLE subjects.

In TLE, the focus on practical skills has faced criticism regarding academic rigor. While some research asserts that TLE improves academic outcomes via hands-on engagement (Dela Cruz, 2024), other studies argue that TLE's emphasis on vocational skills sometimes comes at the expense of theoretical understanding, which can reflect in variable student performance (Mendoza, 2025).

Furthermore, Fernandez et al. (2025) highlight that strong motivation and study strategies correlate positively with performance in both accounting and TLE. However, Volasco (2021) cautions that not all students have equal access to resources fostering motivation, which leads to disparities in academic achievement.

Fernandez et al. (2025) linked motivation and study strategies to academic success in both accounting and TLE subjects, underscoring that engagement and effective learning approaches are key to higher performance.

Collectively, these studies underscore the multifaceted nature of academic performance in accounting and TLE, influenced by cognitive, environmental, and motivational factors, which must be considered in efforts to improve educational outcomes.

Academic Advantage of implementing Accounting as a substitute for Specialized TLE subjects

Technology and Livelihood Education (TLE) has traditionally been recognized for equipping students with practical life skills essential for livelihood, entrepreneurship, and technical proficiency (Fabico, 2015). Academic performance in TLE subjects has been linked to student motivation and self-efficacy, indicating that affective domains play a significant role in enhancing competency acquisition (Dela Cruz, 2024). However,

despite its practical orientation, some concerns about limited emphasis on financial and business literacy have emerged.

Transitioning towards accounting as a substitute subject aims to address these limitations by providing students with structured knowledge in financial management, budgeting, and analytical skills. Research by Calunsag (2024) found that accounting students generally exhibit favorable academic performance, with learning styles heavily influencing success rates. The structured nature of accounting education has been linked to improved analytical problem-solving and logical reasoning capabilities among learners.

Moreover, a study by Nonato (2024) demonstrated that the use of redesigned learning materials in accounting and related subjects considerably boosts students' academic achievements. This suggests that curriculum innovation tailored to accounting enhances student engagement and mastery over complex financial concepts.

Similarly, academic performance among business and accounting students has been associated with diverse learning styles such as auditory, kinesthetic, and visual, fostering broad-based comprehension and positive academic outcomes (Isaac & Santos, 2023). Integrating accounting into secondary education aligns with these findings, as the discipline supports varied learning approaches while reinforcing critical thinking.

On the institutional level, DepEd (2021) advocates for financial literacy as a national priority integrated within the K to 12 curricula. Implementing accounting given this context is considered a strategic move to align secondary education outputs with the evolving needs of the Philippine economy and global competitiveness.

Lastly, studies emphasize the academic advantage of accounting substitution in encouraging career readiness. A study by Fabito et al. (2025) showed that students trained in accounting possess superior preparedness for senior high school business tracks and related career paths than those solely exposed to specialized TLE subjects, which are more skill-based and less theory intensive.

Academic difficulties of implementing Accounting as a substitute for Specialized TLE subjects

Implementing accounting as a substitute for specialized Technology and Livelihood Education (TLE) subjects presents considerable academic challenges. A common difficulty faces students in grappling with the abstract nature of accounting concepts, which contrasts starkly with the more concrete, hands-on learning approach typical of TLE subjects (Mercado et al., 2016). This abstractness often results in confusion and lower motivation, which hinders academic progress in accounting courses (Aprilia, 2018).

Moreover, Bongalonta and Bongalonta (2023) identified substantial learning gaps among K-12 ABM graduates, attributing these weaknesses to limited accounting backgrounds, insufficient preparation, and lack of proper integration of accounting lessons into real-life contexts. These gaps indicate that students need more foundational support to succeed when accounting replaces specialized TLE subjects.

In addition, the scarcity of teaching and learning resources exacerbates these academic challenges. According to Wadasen et al. (2024), many secondary schools face shortages of trained accounting teachers and instructional materials, which undermines the quality of accounting education delivery. This resource deficit contributes to difficulties in mastering accounting principles, as students lack sufficient guided practice and support.

Another prevalent issue is poor time management and inadequate study habits among accounting students. Mbugua et al. (2012) observed that the heavy coursework and complex nature of accounting require disciplined time allocation, which many students struggle to attain. This results in insufficient revision and poor academic outcomes.

Furthermore, research by Bongalonta and Bongalonta (2023) highlights the challenge of students balancing academic responsibilities with external commitments, such as part-time jobs, which detract from their focus and performance in accounting classes. This situation contrasts with specialized TLE subjects, where more practical and interactive teaching methods may better engage students.

Additionally, Takakura (1992) and Peleias et al. (2008) emphasize that instructional challenges such as ineffective teaching styles, the perceived monotony of accounting, and changes in policies contribute to student difficulties. These factors highlight the necessity of adopting dynamic and student-centered teaching approaches to mitigate academic hardships.

Finally, the challenge of teacher preparedness cannot be overlooked. Espiritu (2020) reported that school heads and teachers often lack adequate training in financial management and accounting instruction, resulting in inconsistent program delivery and weak learner support. This indicates that successful implementation of accounting as a substitute requires significant investment in teacher capacity building.

IV. THEORITICAL BASIS

This study is anchored on Curriculum Theory and the Concerns-Based Adoption Model (CBAM). Curriculum Theory looks at how a school's curriculum is planned, developed, and used to help students learn. It stresses that changing a curriculum for example, replacing specialized Technology and Livelihood Education (TLE) subjects with Accounting is not just about changing the subjects taught. It also considers the needs of

students, how teachers prepare, and what society expects from education. This theory helps explain how shifting from practical, skill-based TLE subjects to more academic-focused Accounting can affect what students learn and how motivated they feel.

Moreover, the Concerns-Based Adoption Model (CBAM) explains how people, like students and teachers, react to new changes in school, such as new subjects. CBAM shows that adapting to change is a process where individuals go through different stages of concern and acceptance. This model helps us understand the challenges and benefits students and teachers experience while adjusting to accounting replacing TLE, such as overcoming worries or learning new skills.

In connection with this study, Curriculum Theory helps us explore the perceived academic advantages and difficulties Grade 10 students face when accounting substitutes TLE at Pilar College of Zamboanga City during the school year 2025–2026. Meanwhile, CBAM guides us in understanding how students and teachers adapt to this new curriculum change and whether the students perceive differences between advantages and difficulties. Hence, this research aims explore the perceived advantages and difficulties of implementing Accounting as a substitute for the specialized TLE subject in Grade 10 at Pilar College Zamboanga City. By examining the perspectives of the students, the research seeks to provide useful insights for school leaders in making data-driven decisions to enhance curriculum relevance

Conceptual Framework

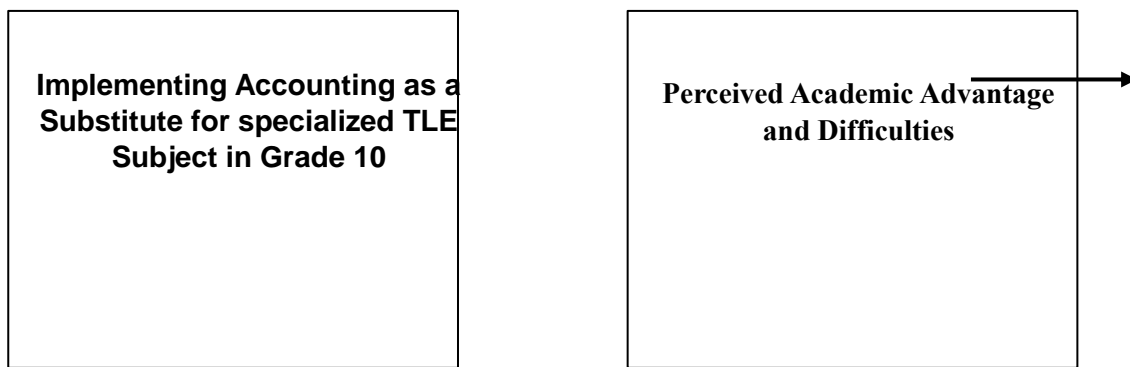


Figure 1. Conceptual Framework of the Study

The conceptual framework for this study examines the relationship between implementing Accounting as a substitute for specialized TLE subjects and the perceived academic advantages and difficulties among Grade 10 students at Pilar College of Zamboanga City. In this framework, the substitution of accounting serves as the independent variable, while the perceived academic advantages and difficulties are the dependent variables. The framework suggests that implementing accounting influences students' academic experiences by providing potential benefits such as enhanced financial literacy and analytical skills. However, it also acknowledges possible challenges like adjusting to abstract concepts that may affect academic performance. This framework guides the study to explore and understand how this curriculum changes impacts student perception and learning outcomes.

Operational Definition of Terms

Academic Advantage – In this study, it refers to the perceived positive academic outcomes or benefits experienced by Grade 10 students when Accounting is implemented as a substitute for specialized Technology and Livelihood Education (TLE) subjects, such as improved understanding, skills, or motivation.

Academic Difficulties – In this study, this term refers to the perceived challenges or obstacles that Grade 10 students face in their academic performance when studying Accounting as a substitute for specialized TLE subjects. These may include difficulties in understanding concepts, adapting to the subject matter, or applying skills.

Accounting – In this study, Accounting is a subject focused on the systematic recording, analysis, and communication of financial transactions. It aims to develop students' financial literacy, analytical thinking, and business management skills.

Specialized Technology and Livelihood Education (TLE) – This term refers to the practical and vocational subjects within the Philippine K to 12 curricula that focus on specific livelihood skills such as cookery, dressmaking, information and communications technology, and entrepreneurial skills.

Substitute – In this context, it refers to the act of replacing one subject with another in the curriculum; specifically, implementing Accounting in place of specialized TLE subjects for Grade 10 students.

Curriculum Change – Refers to the planned modification or substitution in the school curriculum, such as implementing Accounting as a substitute for specialized TLE subjects to Grade 10 students

V. METHODOLOGY

1.1 Research Design

This study used a descriptive-correlational quantitative design. According to Creswell (2014), this method is effective for capturing the complexities of real-world behaviors and outcomes, making it an appropriate choice for examining the perceived academic advantages and difficulties of implementing Accounting as a substitute for specialized TLE subjects among Grade 10 students at Pilar College of Zamboanga City. It will also determine whether there are significant differences in students' perceptions of these advantages and difficulties.

Data were collected through surveys or questionnaires administered to Grade 10 students who were enrolled in the substituted accounting subject. The results were analyzed using statistical tools such as frequency distribution, mean, and independent sample t-tests, providing a clear framework for understanding students' academic experiences and the relationship between advantages and difficulties related to the curriculum change.

1.2 Research Locale

The study conducted at Pilar College of Zamboanga City, located along R.T. Lim Boulevard, Zamboanga City. The participants are the Grade 10 students of Pilar College during the school year 2025–2026 who were enrolled under the TLE subject. Pilar College was selected as the research locale because of it directly implements of accounting as a substitute for specialized TLE subjects, providing the researchers with access to a suitable population for the study. The school's structured academic environment and accessibility also ensure effective communication and coordination with participants, facilitating a smooth research process.

1.3 Respondents

The study focused on Grade 10 students currently enrolled at Pilar College of Zamboanga City for the school year 2025–2026. A total of 60 grade 10 students served as the respondents of the study. These students were selected because they were at a critical stage in their academic development, where curriculum changes, such as substituting specialized Technology and Livelihood Education (TLE) subjects with accounting, could have a significant impact on their learning experiences and academic performance.

Only students who were officially enrolled in Grade 10 during the study period were included to ensure consistency in the data collected. Students who were not part of this grade level, were on academic probation, had special learning needs that may affect academic outcomes, or who are not taking the accounting subject as a substitute for specialized TLE were excluded from the study.

1.4 Population and Sampling

For this research study, the population consisted of all Grade 10 students who were enrolled at Pilar College of Zamboanga City during the school year 2025–2026. This group was chosen because they were the primary participants affected by the substitution of accounting for specialized Technology and Livelihood Education (TLE) subjects. Focusing on all Grade 10 students ensured comprehensive data collection that reflected diverse experiences and perceptions within the school.

The sampling technique used in this study was total enumeration sampling, which involves including every student within the target population. All Grade 10 students who were enrolled in the accounting subject as a substitute for specialized TLE subjects were part of the study. This approach was appropriate as it provided complete representation of the group, allowing for comprehensive and reliable findings. Total enumeration sampling minimizes sampling bias (Creswell, 2014).

1.5 Research Instrument

The research instrument for this study was a researcher-made survey questionnaire designed to collect quantitative data regarding Grade 10 students' perceptions of the advantages and difficulties of implementing Accounting as a substitute for the specialized TLE subject. The questionnaire was divided into two sections: All two sections were gathered the respondent's information such as the name (optional), sex, grade level and section.

The first section included statements that measure perceived academic advantages related to accounting, focusing on areas such as financial literacy, analytical skills, problem-solving, and career readiness. The second section assessed perceived academic difficulties, addressing challenges like the abstract nature of accounting concepts, reduced hands-on learning opportunities, and motivation concerns.

All items in the first and second sections used a 5-point Likert scale ranging from Strongly Agree to Strongly Disagree to ensure consistent, measurable responses. This structure allows for comprehensive data collection on students' overall experiences, facilitating an analysis that could answer the research questions and test the stated hypothesis effectively.

1.6 Validity and Reliability

In this study, to ensure content validity, the questionnaire was validated by a group of experts who were professional in environmental science or education, ensuring that the questions effectively measured the intended variables. The validators were given a validation form where they indicated their agreement or disagreement to each item. They were also asked to write their suggestions and remarks on the space provided in the same form.

For the reliability of the research instrument, the researcher conducted pilot testing by administering the questionnaire to a group of non-respondents, or a small group of students who did not form part of the final study. Pilot testing helped identify potential issues with the questionnaire, such as unclear or ambiguous questions, technical problems, or inconsistencies in the format. This process allowed the researcher to refine the instrument before its actual implementation, ensuring that it accurately measured the intended variables. It also provided an opportunity to evaluate the time required for respondents to complete the questionnaire, as well as to assess the clarity of the instructions and the overall flow of the survey.

1.7 Data Gathering Procedure

The study began by securing approval from the school president and principal and other relevant authorities at Pilar College of Zamboanga City. After receiving the necessary approvals, the researcher prepared the survey questionnaire along with consent forms, which were distributed to the parents or guardians of the Grade 10 students to obtain their permission for participation.

Once parental consent was secured, the researcher explained the purpose and procedures of the study to the students and guided them in completing the survey in a quiet and distraction-free environment. The survey gathered information on the perceived academic advantage and difficulties of Implementing Accounting as A Substitute for Specialized TLE Subject in Grade 10. After the data collection, the researcher organized and analyzed the responses to determine how the substitution influenced students' academic experiences, addressing the study's research questions and hypothesis. Throughout the process, confidentiality and anonymity were strictly maintained to ensure honest and accurate responses.

1.8 Statistical Treatment

The study employed descriptive statistics that summarize and describe the characteristics of the dataset. Descriptive statistics such as frequency distribution and measures of central tendency (mean and mode) were used to present the demographic profile of the respondents and their perceived academic advantages and difficulties in implementing Accounting as a substitute for the specialized TLE subject. The mean was used to determine the average level of perception regarding the advantages and difficulties, while the mode identified the most common responses. To determine whether there was a significant difference between the perceived academic advantages and difficulties, the study used inferential statistics specifically, the independent sample t-test to compare the mean scores of the two variables. Moreover, Pearson's correlation coefficient was applied too. This statistical tool measures the strength and direction of the linear relationship between two continuous variables (Pallant, 2020). A significant Pearson's correlation was indicated whether demographic factors are associated with variations in recycling behaviors among students. All statistical analyses were conducted using statistical software IBM SPSS STATISTIC to ensure accuracy and reliability in the results.

1.9 Data Analysis

The data collected from the survey questionnaire were analyzed using both descriptive and inferential statistics to draw meaningful conclusions about the perceived advantages and difficulties of implementing Accounting as a substitute for the specialized TLE subject among Grade 10 students at Pilar College of Zamboanga City.

Descriptive statistics summarized the responses, with frequency and percentage distributions used to present the demographic data such as age, sex, and year level, providing a clear profile of the respondents. The mean and mode were calculated to identify the average level and most common perceptions regarding the academic advantages and difficulties experienced by the students. For inferential analysis, a paired sample t-test was conducted to determine if there was a significant difference between the perceived academic advantages and difficulties of the accounting substitution. All statistical analyses were carried out using appropriate

statistical software to ensure accuracy and efficiency, and the results will be interpreted to provide insights that could inform curricular decisions and improve student learning experiences.

1.10 Ethical Considerations

To ensure that participants' rights were protected, their participation is voluntary, and the data collected were handled with the utmost confidentiality and integrity. Before participating in the study, all students, as well as their parents or guardians, were provided with an informed consent form. This form clearly outlined the purpose of the study, the procedures involved, the potential risks and benefits, and the voluntary nature of participation. All data collected during the study were kept confidential and were used solely for research purposes. Students' responses were anonymized to protect their identities, and personal information was not disclosed or shared with any unauthorized parties. The researcher ensured that all records were securely stored and were accessible only to those directly involved in the study.

The study underwent ethical review and received approval from relevant school authorities, such as the principal and the research instructor. This ensures that the research complied with the school's ethical standards and guidelines. Additionally, the researcher will adhere to any ethical guidelines and protocols set by the institution or governing bodies regarding research with involving minors. The researcher ensured that the data collected were accurate, valid, and were analyzed in a responsible manner. Any findings or conclusions were based on the data collected and will be presented in an objective, transparent manner.

1.11 Disclosure of Conflict of Interest

The researcher hereby declares that there are no financial, personal, or professional conflicts of interest related to this study. All aspects of the research, including the selection of respondents, data collection, analysis, and reporting of results, were conducted solely on the basis of academic and ethical standards.

The researcher affirms that no external parties had a vested interest in the outcome of this study. All decisions were guided by the principles of transparency, honesty, and accountability. If any potential conflicts arose during the research, they were promptly disclosed to the school authorities to ensure that the study remained ethical. This demonstrated the researcher's commitment to upholding the integrity throughout the study.

VI. RESULT AND DISCUSSION

This chapter presents the data in tabular form, analyzes and interprets the results. The presentation, analysis, and interpretation of the data, which are presented hereto, are arranged in accordance with the order of the problems stated in the first chapter.

1. What are the perceived academic advantages on implementing accounting as a substitute for specialized TLE subject among the Grade 10 students at Pilar College Zamboanga City?

The results show that there are **14 male respondents (46.7%)** and **16 female respondents (53.3%)**, indicating that female respondents are slightly higher in proportion than male respondents. Although there is a minor difference in frequency, both grouped are relatively well presented, which supports a reasonable comparison of their perception regarding the advantages of accounting as a substitute for specialized TLE subject

TABLE 1.0 Presents the distribution of respondents according to sex of the Grade 10 respondents.

SEX	FREQUENCY	PERCENT
MALE	14	46.7
FEMALE	16	53.3
TOTAL	30	100

The mode values indicate the most frequently selected responses for each statement. The results show that most statements have mode of **1 (Strongly Agree)** Specifically, Statement 1,3,4,5,6,7 and 9. Demonstrating that a significant number of students strongly believe that accounting is beneficial to them, as a student and future circumstances involving financial literacy.

On the other hand, statement 2,8,10 have a mode of **2(Agree)**, indicating that respondents generally agree with these statements, although with slightly less intensity compared to those rated as strongly agree.

For statement 9, the result indicates multiple modes, it has more than one response option was equally frequent.

Table 1.1 Presents the mode analysis of Grade 10 students' perception in Perceived Academic Advantages of learning accounting as a substitute for specialized TLE Subjects.

Statement No.	Statements	Mode	Interpretation
1	I believe learning accounting could develop my financial literacy.	1	Strongly Agree
2	I believe learning accounting can help me become a financially responsible individual.	2	Agree
3	I believe learning accounting could prepare me to deal with real-life financial decision-making.	1	Strongly Agree
4	I believe learning accounting can enhance my understanding of entrepreneurship and business concepts.	1	Strongly Agree
5	I believe learning accounting could develop my awareness of career opportunities in finance and business.	1	Strongly Agree
6	I believe implementing accounting as a substitute for a specialized TLE subject could promote analytical and critical thinking skills.	1	Strongly Agree
7	I believe learning accounting could help me become more organized and detail-oriented.	1	Strongly Agree
8	I believe learning accounting as a TLE substitute could develop and enhance my problem-solving and computation skills.	2	Agree
9	I believe learning accounting can help me develop my knowledge and skills through both lessons and practice.	1	Strongly Agree
10	I believe learning accounting would be an advantage because it aligns with current economic and business trends such as entrepreneurship, e-commerce, digital banking, and investment awareness.	2	Agree

Perceived academic advantages of implementing accounting as a substitute for specialized TLE subject among the Grade 10 students at Pilar College Zamboanga City. Presents the respondents' perceptions regarding the academic advantages of learning accounting as a substitute for the specialized TLE subject. The results revealed that all statements obtained mean score ranging from **1.80 to 2.30**, which are interpreted as **Agree**. It indicates that the respondents generally have a positive perception of accounting as it contributes to the development of financial literacy, financial responsibility, and real-life decision-making skills.

Furthermore, the participants demonstrated agreement that learning accounting enhances their understanding of entrepreneurship and business concepts, broadness of career opportunities, and fosters the development of analytical and critical thinking skills. It also contributes to the enhancement of organizational, problem-solving, and computational abilities.

Overall, **total Mean Score 2.12** in which interpreted as **AGREE**. This indicates that Grade 10 respondents generally perceive that learning accounting as a substitute for specialized TLE subject provides academic advantages.

Table 1.2 Presents the mean score of each statement and its total mean score of respondent's perceptions regarding the academic advantages of implementing accounting as a substitute for the specialized TLE subject.

Statement No.	Statements	Mean Score	Interpretation
1	I believe learning accounting could develop my financial literacy.	1.8	Agree
2	I believe learning accounting can help me become a financially responsible individual.	2.17	Agree
3	I believe learning accounting could prepare me to deal with real-life financial decision-making.	2.07	Agree
4	I believe learning accounting can enhance my understanding of entrepreneurship and business concepts.	2.27	Agree
5	I believe learning accounting could develop my awareness of career opportunities in finance and business.	2.30	Agree
6	I believe implementing accounting as a substitute for a specialized TLE subject could promote analytical and critical thinking skills.	2.20	Agree
7	I believe learning accounting could help me become more organized and detail-oriented.	2.0	Agree

8	I believe learning accounting as a TLE substitute could develop and enhance my problem-solving and computation skills.	2.13	Agree
9	I believe learning accounting can help me develop my knowledge and skills through both lessons and practice.	2.07	Agree
10	I believe learning accounting would be an advantage because it aligns with current economic and business trends such as entrepreneurship, e-commerce, digital baking, and investment awareness.	2.20	Agree
TOTAL MEAN SCORE		2.12	Agree

Legend: 1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strong Disagree

To further determine whether there is a significant difference in the perceived academic advantages when respondents are grouped according to sex, an **independent sample t-test** was conducted.

The table 1.3 shows that Grade 10 male respondents obtained a higher mean score ($M=2.57$, $SD= 1.54$) compare to female respondents ($M=1.71$, $SD =.48$). This indicates that male respondents tend to have a more favorable perception of the academic advantages of implementing Accounting as a substitute for specialized TLE subject. However, this difference in mean scores needs to be tested for statistical significance.

Table 1.3

Group Statistics on perceived academic advantages according to sex.

Sex	N	Mean	Standard Deviation
MALE	14	2.57	1.54
FEMALE	16	1.71	.48

The table 1.4 Lavene's Test of Equality of Variances results show a significance value of 0.000, which is less than 0.05. This indicates that the assumption of equal variances is not met. Therefore, the results under "Equal variances not assumed" were used in interpreting the independent sample t-test.

Table 1.4

Lavene's Test of Equality of Variances on Perceived Academic Advantages

Variable	F	Sig.	Decision
Perceived Academic Advantages	22.789	0.000	Variance Not Equal

Table 1.5 presents the result of the independent sample t-test on the perceived academic advantages of accounting as a substitute for the specialized TLE subject when grouped according to sex. The results show the computed p-value of 0.063, which is higher than the 0.05 level of significance. This indicates that there is **no statistically significant difference** in the perceptions of male and female respondents.

Therefore, the variation in mean scores between the two groups is not considered significant and may be attributed to individual differences among respondents rather than sex.

Table 1.5

Independent Sample t-test on Perceived Academic Advantages by Sex.

Variable	t	df	Sig. (2-tailed)	Mean Difference	Decision
Perceived Academic Advantages	2.005	15.226	.063	.85982	Not Significant

2. What are the perceived academic difficulties on implementing accounting as a substitute for specialized TLE subject among the Grade 10 students at Pilar College Zamboanga City?

The results show that out of 30 respondents, 10 are male (33.3%) and 20 are female (66.7%), indicating that female students make up the majority of participants in the study. This distribution provides a greater

representation of female perspectives on the challenges of learning accounting, while still including male viewpoints to ensure that the findings reflect the perceptions of both sexes.

TABLE 2.0 Presents the distribution of respondents according to sex of the Grade 10 respondent for the Academic difficulties on implementing accounting as substitute for specialized TLE subject

SEX	Frequency	Percent
Male	10	33.3
Female	20	66.7
Total	30	100.0

Perceived academic difficulties on implementing accounting as a substitute for specialized TLE subject among the Grade 10 students at Pilar College Zamboanga City. Presents that the mean scores for all statements range from **2.63 to 3.10**, in which are interpreted as Neutral based on the given Likert scale.

This indicate that students **neither agree nor disagree** regarding the difficulties of learning accounting as a substitute subject for TLE. In particular, they demonstrated moderate perception towards challenges in understanding abstract concepts, interpreting technical terms, performing frequent computations, and the allotted time required to learn the accounting subject.

TABLE 2.1

Presents the mean score of each statement and its total mean score of respondent's perceptions regarding the academic difficulties on implementing accounting as a substitute for the specialized TLE subject among the Grade 10 students at Pilar College Zamboanga City.

Statement No.	Statements	Mean Score	Interpretation
1	I believe learning accounting will be difficult to understand because of abstract concepts.	2.63	Neutral
2	I believe learning accounting will be difficult to learn because it requires strong math skills that I find challenging.	2.90	Neutral
3	I believe there are many technical terms in accounting that will make it harder for me to learn.	2.83	Neutral
4	I believe learning frequent computations in accounting can be stressful.	2.80	Neutral
5	I believe learning accounting could take more time to understand compared to other TLE subjects	2.73	Neutral
6	I believe learning accounting is more book-based and less hands-on compared to TLE subjects.	2.87	Neutral
7	I believe learning accounting lacks practical activities, which makes the lessons less engaging.	3.03	Neutral
8	I believe I may have difficulty managing accounting with other subjects.	3.00	Neutral
9	I believe accounting as a substitute for a specialized TLE subject could reduce my practical livelihood skills.	3.10	Neutral
10	I believe accounting would be challenging to learn since I only have little background knowledge about it. .	3.00	Neutral
TOTAL MEAN SCORE		2.89	NEUTRAL

Legend: 1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strong Disagree

Table 2.2 The results shows that most statement obtained a mode of 3 (Neutral), indicating that respondents generally neither agree nor disagree that accounting is difficult in terms of abstract concepts, mathematical requirements, technical terms, computational demands, time consumption, and lack of hands-on activities. This suggest that students do not strongly perceive accounting as highly difficult in these aspects.

However, some statement obtained a mode of 2 (Agree), specifically in areas such as accounting being more book-based and less hands-on compared to TLE subjects, and limited prior background knowledge making it more challenging to learn. These indicate that some students recognize certain difficulties, particularly in terms of instructional approach and prior exposure.

Some items obtained multiple modes, indicating that respondents' answers were evenly distributed, resulting in no single most frequent response for those statements.

Overall, the findings indicate that Grade 10 students generally hold a neutral perception of the academic difficulties associated with learning accounting as a substitute for the specialized TLE subject. This suggests that accounting is not widely perceived as highly difficult, although certain aspects related to instruction approach and prior knowledge may still influence students learning experience.

Table 2.2 Presents the mode analysis of Grade 10 students’ perception in Perceived Academic difficulty of learning accounting as a substitute for specialized TLE Subjects.

Statement No.	Statements	Mode	Interpretation
1	I believe learning accounting will be difficult to understand because of abstract concepts.	3	Neutral
2	I believe learning accounting will be difficult to learn because it requires strong math skills that I find challenging.	3	Neutral
3	I believe there are many technical terms in accounting that will make it harder for me to learn.	3	Neutral
4	I believe learning frequent computations in accounting can be stressful.	3	Neutral
5	I believe learning accounting could take more time to understand compared to other TLE subjects	3	Neutral
6	I believe learning accounting is more book-based and less hands-on compared to TLE subjects.	2	Agree
7	I believe learning accounting lacks practical activities, which makes the lessons less engaging.	3	Neutral
8	I believe I may have difficulty managing accounting with other subjects.	2 ^a	Multiple Responses
9	I believe accounting as a substitute for a specialized TLE subject could reduce my practical livelihood skills.	3 ^a	Multiple Responses
10	I believe accounting would be challenging to learn since I only have little background knowledge about it. .	2	Agree

The table 2.3 shows that Grade 10 male respondents obtained a slightly higher mean score (**M=3.10, SD= 0.91**) compared to female respondents (**M=2.79, SD =0.83**). This indicates that male respondents exhibit somewhat higher level of total mean than female respondents. However, this observed difference is purely descriptive and requires inferential statistical analysis to determine its significance.

Table 2.3
Group Statistics on perceived academic advantages according to sex.

Sex	N	Mean	Standard Deviation
MALE	10	3.10	.91
FEMALE	20	2.79	.83

The table 2.4 presents the result of Lavene’s Test of Equality of Variances. The significance value is 0.901, is greater than 0.05. This indicates that the assumption of equal variances is met. This means that the variability of scores between male and female respondents is not significantly different, and therefore the assumption required for the independent sample t-test is complied with.

Table 2.4
Lavene’s Test of Equality of Variances on Perceived Academic Advantages

Variable	F	Sig.	Decision
Perceived Academic Difficulties	0.16	0.901	Equal Variance Assumed

Table 2.5 shows the result of the independent sample t-test on total mean when grouped according to sex. The computed significance value is 0.352, which is greater than the 0.05 level of significance, indicating that there is

no statistically significant difference between male and female respondents. Although male respondents obtained a slightly higher mean score than female respondents, the difference is not sufficient to be considered statistically significant. This implies that sex does not have a meaningful effect on TOTALMEAN in this study.

Table 2.5
Independent Sample t-test on Perceived Academic Advantages by Sex.

Variable	t	df	Sig. (2-tailed)	Mean Difference	Decision
Perceived Academic Difficulties	0.947	28	0.352	0.31500	Not Significant

3. Is there a significant difference in the perceived academic advantages and difficulties on implementing Accounting as a substitute for specialized TLE subject among Grade 10 students at Pilar College Zamboanga City?

To determine the relationship between perceived academic advantages and difficulties in implementing accounting as a substitute for specialized TLE subject, Pearson Product-Moment Correlation was used. This statistical tool was applied to identify whether a significant relationship exists between the two variables.

Table 3.0 Pearson Correlation between Perceived Academic Advantages and Difficulties

Variables	Pearson r	Sig. (2-tailed)	N	Interpretation
Advantages Vs. Difficulties	0.120	0.529	30	Not Significant

The result of the Pearson correlation analysis indicates a very weak positive relationship between perceived academic advantages and difficulties ($r=0.120$). However, the computed p-value of 0.529 is higher than the 0.05 level of significance, indicating that the relationship is not statistically significant. Therefore, **there is no significant relationship between the two variables among Grade 10 students.**

VII. CONCLUSION

This study examined the perceived academic advantages and difficulties of implementing accounting as a substitute for the specialized TLE subject among Grade 10 students at Pilar Pilar College of Zamboanga City. Based on the findings, students generally exhibited a favorable perception of the academic advantages, particularly in enhancing financial literacy, decision-making skills, improving entrepreneurship awareness, and strengthening analytical and computational abilities. Meanwhile, the level of perceived difficulties ranges from low to moderate, suggesting that although some challenges are encountered, the subject is not generally perceived as highly difficult.

The inferential analysis revealed that there is no statistically significant difference in the perceived academic advantages and difficulties when respondents are grouped according to sex. This suggests that male and female students exhibit comparable perceptions of the subject. In addition, the pearson correlation result showed a very weak position relationship between the two variables, which was not statistically significant, indicating that perceived advantages are not associated with perceived difficulties.

Overall, the results indicate that Accounting is perceived as an appropriate substitute for the specialized TLE subject, with similar perceptions observed across sex and no significant relationship between the perceived academic advantages and difficulties.

VIII. RECOMMENDATION

In light of the findings of the study, the following recommendation are proposed:

1. Enhancement of Academic Advantages

Since students generally perceive accounting as beneficial, teachers should continue to reinforce their advantages by incorporating activities that enhance financial literacy, decision-making, and entrepreneurial skills.

2. Support for Identified Difficulties

Although the level of difficulties is low to moderate, teachers should provide additional support in topics that students find challenging by simplifying explanations and offering more guided practice.

3. Implementation of inclusive instructional Approaches

In view of the absence of significant differences in perceptions based on sex, teachers may imply uniform and inclusive instructional strategies that effectively address the learning needs of all students regardless of sex.

4. Focused intervention strategies

Considering that no significant relationship exists between perceive academic advantages and difficulties, educators should address these aspects independently by reinforcing positive learning outcomes while simultaneously implementing appropriate interventions to minimize learning barriers.

5. Enhancement of curriculum Implementation

School administrators are encouraged to strengthen the implementation of accounting as a substitute for the specialized TLE subject by incorporating more practical, skill-oriented, and context-based learning experiences that align with real-world applications.

6. Recommendation for future Research

Future researchers are advised to explore other relevant variables, such as instructional strategies, learning styles, and academic performance, to provide a more comprehensive understanding of factors influencing students' perception of accounting.

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