

Financial and Entrepreneurial Skills of Junior High School Students and Teaching Strategies in TLE in the Congressional District IV Batangas Province

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Abstract

In the Philippines equipping Filipino citizens with the essential life skills needed to meet the demands of the 21st century and among of these competencies are financial literacy and entrepreneurial skills. These abilities enable learners to manage resources wisely and recognize opportunities that contribute to individual success and community progress. Despite the efforts of the national government to strengthen and improve financial and entrepreneurial education through different programs, reforms, and curriculum integration, it is still evident that financial and entrepreneurial literacy remain low. This study aimed to assessed the current level of financial and entrepreneurial skills of junior high school students and use the findings as a foundation for enhancing teaching strategies in TLE.

In this regard, the study employed a descriptive research design to provide a systematic and objective description of the variables under investigation. A researcher-made survey questionnaire served as the primary data-gathering instrument and will be administered to selected TLE teachers from Congressional District IV in Batangas Province.

The findings revealed that students possess above-average financial skills, particularly in budgeting and saving practices, indicating that they have a foundational understanding of financial management. On the other hand consistent saving behavior and application of financial concepts require further enhancement. In terms of teaching strategies, both written tasks and practical activities were utilized, with practical activities being highly utilized and written tasks moderately utilized, suggesting that teachers recognize the importance of experiential learning in developing entrepreneurial competencies. Furthermore, the study found a highly significant relationship between teaching strategies and students' financial and entrepreneurial skills, confirming that effective instructional approaches directly influence learners' skill development.

Despite these positive outcomes, teachers encountered several challenges, including students' lack of confidence in financial decision-making, difficulty in applying concepts to real-life situations, limited exposure to entrepreneurial experiences, and constraints related to time, resources, and class size. Lastly, a teaching strategy guide was the output of the study which will help teacher to develop student's financial and entrepreneurial skills.

Keywords: *financial skills, entrepreneurial skills, budgeting, TLE teaching strategies*

Introduction

The Philippines, as a developing nation, continues to pursue sustainable economic growth and global competitiveness amid rapid modernization, globalization, and technological advancement. Education plays a crucial role in equipping Filipino citizens with the essential life skills needed to meet the demands of the 21st century. Among these competencies, financial literacy and entrepreneurial skills stand out as critical foundations for personal development, economic participation, and nation-building. These abilities enable learners to manage resources wisely and recognize opportunities that contribute to individual success and community progress. Despite the efforts of the national government to strengthen and improve financial and entrepreneurial education through different programs, reforms, and curriculum integration, it is still evident that financial and entrepreneurial literacy remain low. According to the Bangko Sentral ng Pilipinas (BSP), only 27 percent of Filipino teenagers aged 15 to 19 years old have their own bank accounts, and only 21 percent have their own savings. Furthermore, the 2021 BSP Financial Inclusion Survey revealed that only 2 percent of Filipinos were able to answer all basic financial literacy questions and assessments correctly. These data show the urgent need to strengthen financial and entrepreneurial education within the education system, particularly at the junior high school level, where foundational skills are developed.

In line with this, financial and entrepreneurial competencies fundamentally shape how students make decisions, solve problems, and plan for their future. In an era characterized by economic uncertainty and evolving labor markets, young learners must develop the capacity to budget effectively, save prudently, and think innovatively. These skills foster independence, responsibility, and confidence, qualities essential for both academic achievement and real-world success. When students acquire financial literacy and entrepreneurial mindsets early, they are better prepared to face the complexities of adulthood, including employment challenges, livelihood creation, and financial security.

Technology and Livelihood Education (TLE) serves as the primary platform within the K to 12 curriculum for cultivating these practical capabilities among secondary school learners. TLE is designed to provide hands-on learning experiences that mirror real-life situations, enabling students to apply theoretical knowledge to realistic contexts. Through TLE, junior high school students engage in activities related to home economics, information and communication technology, and industrial arts, all of which require resource management, creativity, and strategic thinking. By integrating financial literacy and entrepreneurial principles into TLE instruction, educators can significantly enhance students' readiness for livelihood opportunities, responsible citizenship, and lifelong learning.

Moreover, the Department of Education has intensified the integration of financial education into the K to 12 curriculum to help learners, teachers, and school personnel develop financial literacy and make better financial decisions. Despite this effort, surveys show that many Filipinos still struggle with basic financial concepts, which reinforces the need for effective financial education in schools. DepEd's Financial Education Policy (DepEd Order No. 022, s. 2021) emphasized the inclusion of financial lessons and activities in the classroom and the provision of capacity-building opportunities for teachers and staff. These initiatives aim to equip students with practical skills in managing resources, promoting financial health, and preparing them for responsible economic participation.

In support of this, research has increasingly noted the importance of financial literacy among adolescents in developing countries, particularly in the Philippine context. Español et al. (2024) revealed that students' financial knowledge, attitude, and behavior serve as a predictor of entrepreneurial inclination. This strengthens the need to integrate financial literacy more extensively into the secondary curriculum to reinforce entrepreneurial outcomes among young learners.

In addition, studies focusing on entrepreneurial education have demonstrated its positive impact on skill development and business readiness among secondary students. Findings indicate that learners often demonstrate strong competencies in areas such as initiative, planning, teamwork, and experiential learning, which contribute to their potential for engaging in entrepreneurial activities.

Consequently, effective teaching strategies in TLE are essential for translating curriculum goals into tangible student outcomes. For instance, experiential learning, which evolves around concrete learning experiences and reflective observations, are found to be positively associated with the development of work-related soft skills such as communication, numeracy, problem-solving, adaptability, and teamwork (Ramirez, 2025).

However, despite the recognized importance of TLE in developing practical skills, numerous challenges persist in its implementation within Philippine public schools. Various challenges continue to hinder the effective delivery of TLE instruction, particularly in terms of human, pedagogical, and material resources. Teachers often struggle with limited instructional materials, insufficient equipment, and constraints in their own professional preparation, prompting them at times to use personal funds or rely on external support (Barcelona, et al., 2023). Despite efforts to diversify teaching methods, integrate technology, and adopt performance-based or project-based assessments, issues such as large class sizes, lack of training opportunities, and inadequate resources remain persistent (Rosal, 2024). These systemic challenges impede the full realization of TLE's potential to develop financial and entrepreneurial competencies among Grade 10 students.

In the context of Congressional District IV in Batangas province, these challenges are particularly evident and resonate with the researcher's observations in the six districts. Students in these areas are exposed to a local economy characterized by small business ventures, craft industries, and tourism, which naturally presents opportunities for entrepreneurial engagement. However, many junior high school students exhibit weak budgeting skills, limited decision-making abilities, and insufficient exposure to entrepreneurial activities. The researcher also observed that students often struggle to manage their allowances, make impulsive purchasing decisions influenced by social media and peer pressure, and lack the financial discipline necessary for effective resource management. These deficiencies are further compounded by the fact that TLE subjects often require students to purchase materials and ingredients for project-based requirements, placing additional financial burdens on learners who may already have limited resources.

As an entrepreneurship teacher in the senior high school, the researcher observed that many students have lack of financial and entrepreneurial skills despite of being exposed on different business related concept and activities in schools. Many students struggle with saving, budgeting, decision-making, and opportunity recognition which affects student ability to apply entrepreneurial concepts and skills in practical situation. The researcher believes that this competency should strengthen during Junior

High School Years through the subject of Technology and Livelihood Education where different practical and life skills was developed. Early exposure to financial literacy and entrepreneurial can helps students to be more competent, responsible, innovative, aware and prepared for future challenges. It also student to gain knowledge and skills if they decided to pursue business opportunities or building their own business after senior high school. Lastly, strengthening this competency at an early stage may help student to be financially aware and business minded. These motivation and realization motivated the research to conduct this study

Given these observed gaps and the insights drawn from existing literature, this study aims to assess the financial and entrepreneurial skills of junior high school students in Congressional District IV in Batangas Province, as a basis for improving teaching strategies in Technology and Livelihood Education.

Specifically, the research seeks to identify the level of financial and entrepreneurial skills among junior high school learners, examine the relationship between these competencies, explore the strategies employed by TLE teachers to develop these skills, and determine the challenges encountered by the teachers. Most importantly, the study intends to propose a teaching strategy guide for TLE that is grounded in empirical evidence and responsive to the local context, thereby enhancing the financial literacy and entrepreneurial readiness of junior high school students and contributing to the broader goals of the K to 12 curriculum in preparing learners for lifelong success and productive citizenship.

Research Questions

This study aimed to assess the financial and entrepreneurial skills of junior high school students and teaching strategies used in TLE.

Specifically, it sought to answer the following questions:

1.What is the level of financial and entrepreneurial skills of student as assessed by the teacher in terms of;

- 1.1budgeting and good saving practices;
- 1.2decision making related to money management;
- 1.3risk taking and problem solving; and
- 1.4communication and marketing skills

2.How may the extent of utilization of the teaching strategies be assessed by the respondents relative to;

- 2.1written task
- 2.2practical activities

3. Is there significant relationship between the assessment on the level of the financial and entrepreneurial skills of the student and on the extent of the utilization of teaching strategies?

4. What challenges do teachers encounter in developing students' financial and entrepreneurial skills?

5. Based on the findings of the study, what teaching strategy guide may be proposed?

Methodology

Research Design

This study employed a descriptive research design, which was appropriate for exploring and presenting a detailed account of the financial and entrepreneurial skills of junior high school students. The descriptive method allowed the researcher to systematically gather information, describe existing conditions, and identify patterns or trends in students' skills without manipulating any variables. Through this approach, the study provided a clear and organized depiction of the learners' abilities, behaviors, and experiences in relation to financial literacy and entrepreneurship within the context of Technology and Livelihood Education (TLE).

Participants

The subjects of this study were one hundred twenty-eight (128) junior high school teachers from Congressional District IV, Province of Batangas, who were currently teaching the Technology and Livelihood Education (TLE) subject. These teachers were selected as respondents because they were directly involved in TLE activities and teaching strategies through which financial and entrepreneurial skills were taught and applied.

Research Instrument

The primary instrument used in this study was a researcher-made survey questionnaire, which gathered data on financial skills, entrepreneurial skills, teaching strategies used by TLE teachers, and the challenges encountered by TLE teachers. The questionnaire was designed to systematically measure the variables covered in the study and served as the main tool for collecting quantitative data from the respondents.

The responses gathered from the survey questionnaire were scored using a four-point Likert scale, with each point corresponding to a level of agreement or frequency as indicated in the instrument.

To assess the level of financial and entrepreneurial skills of junior high school students, the following criteria were used:

Scale	Intervals	Verbal Interpretation
4	3.50- 4.00	Highest

3	2.50- 3.49	Above Average
2	1.50- 2.49	Below Average
1	1.00- 1.49	Low

To identify the extent of the utilization teaching strategies used by TLE teachers in developing student's financial and entrepreneurial skills, the following criteria were used:

Scale	Intervals	Verbal Interpretation
4	3.50- 4.00	Highly Utilized
3	2.50- 3.49	Moderately Utilized
2	1.50- 2.49	Slightly Utilized
1	1.00- 1.49	Least Utilized

To identify the challenges encountered by the teacher in developing the financial and entrepreneurial skills of the student, the following criteria were applied:

Scale	Intervals	Verbal Interpretation
4	3.50- 4.00	Strongly Agree
3	2.50- 3.49	Agree
2	1.50- 2.49	Disagree
1	1.00- 1.49	Strongly Disagree

Procedure

The data-gathering process began with an extensive review of existing literature and studies related to financial and entrepreneurial skills, teaching strategies, and challenges in TLE. This step helped the researcher refine the survey questionnaire to ensure that it aligned with the objectives of the study and incorporated validated indicators from previous research. Insights gained from the literature guided the formulation of items that were clear, relevant, and appropriate for TLE teachers, while also establishing the conceptual and operational definitions of the key variables.

Following the development of the questionnaire, the instrument underwent a validation process through expert review and pilot testing. The panel of experts evaluated the questionnaire for clarity, relevance, and alignment with the study's objectives. After incorporating their recommendations, the researcher conducted a trial run with 15 TLE teachers outside the district, who were not part of the actual respondents. Feedback from this pilot test ensured that the items were comprehensible, reliable, and appropriate for the target population, leading to the preparation of the final questionnaire.

Once validated, the researcher sought formal approval from the thesis adviser and the School Division Office of Batangas Province to proceed with data collection. The questionnaires were distributed in digital form through Google Forms to the different districts in Congressional District IV, accompanied by an official approval letter and a request for assistance in answering and distributing the questionnaire. The researcher coordinated with the district heads or personnel through their official email accounts for the dissemination and collection of responses, ensuring that the purpose of the study and confidentiality protocols were clearly explained to all participants. After the two-week administration period, the completed questionnaires were retrieved, checked for completeness, systematically organized, and encoded for statistical analysis. The collected data then underwent appropriate statistical treatment to identify trends, relationships, and insights that informed the development of teaching strategies aimed at enhancing students' financial and entrepreneurial skills in TLE.

Data Analysis

To ensure accurate interpretation and meaningful presentation of the data collected, appropriate statistical tools were utilized to analyze the responses of TLE teachers regarding their students' financial and entrepreneurial skills, teaching strategies, and encountered challenges in TLE.

In particular, the following statistical tools were employed in quantifying the findings to provide a clear understanding of the results in relation to the research objectives:

Frequency. This was used to determine the number and percentage distribution of respondents' answers to individual items in the questionnaire.

Ranking. This was applied to identify the relative importance or order of responses based on frequency.

Weighted Mean. This was utilized to calculate and establish the overall level of financial and entrepreneurial skills, as well as the perceived effectiveness of TLE teaching strategies.

Pearson's r Coefficient of Correlation. This was employed to examine the relationship between the level of students' financial and entrepreneurial skills and the extent of the utilization of teaching strategies.

Results

1. Level of Financial and Entrepreneurial Skills of Students as Assessed by the Teacher.

This section presents the level of financial and entrepreneurial skills of students as assessed by the teacher-respondents. It specifically examined the skills of students in terms of budgeting and good saving practices; decision making related to money management; risk taking and problem solving; and communication and marketing skills. The result provided insights into the strength and weakness of student in this areas.

1.1 Budgeting and Good Saving Practices

Table 2 presents the level of financial and entrepreneurial skills of students as assessed by the teacher in terms of budgeting and good saving practices.

Table 2
Level of Junior High School Students' Financial Skills and Entrepreneurial Skills in terms of Budgeting and Saving Practices

Relative to budgeting and saving practices my students demonstrate the ability to	Weighted Mean	Verbal Interpretation	Rank
1. create a simple budget to manage their daily or weekly allowance.	3.16	Above Average	2
2. regularly set aside a portion of their money for savings.	2.91	Above Average	8
3. distinguish between needs and wants when planning their expenses.	3.13	Above Average	4
4. follow a budget plan when spending their money.	2.98	Above Average	6
5. adjust their budget when unexpected expenses arise.	3.14	Above Average	3
6. track their spending and saving on a regular basis.	2.93	Above Average	7
7. compares the prices of different product before purchasing it.	3.23	Above Average	1
8. set short-term financial goals for their savings.	3.09	Above Average	5
COMPOSITE MEAN	3.07	Above Average	

As reflected in the table a composite mean of 3.07, interpreted as above average. This indicates that learners generally demonstrate adequate financial management skills, particularly in handling their personal finances.

The highest-rated indicator was “Compare prices of different products before purchasing it” with a weighted mean of 3.23, suggesting that students are highly aware of cost efficiency and value for money. This was followed by “Create a simple budget to manage their daily or weekly allowance”, with the mean of 3.16 indicating that students possess adaptability and planning skills in managing limited

resources. On the other hand the lowest-ranked indicator is “Regularly set aside a portion of their money for savings,” while students understand financial concepts, they may struggle with consistency and discipline in actual financial practices.

1.2 Decision- Making Related to Money Management

Table 3 present the level of financial skills and entrepreneurial skills of students in terms of decision-making related to money management.

Table 3
Level of Junior High School Students’ Financial Skills and Entrepreneurial Skills in Terms of Decision-making Related to Money Management

Relative to decision-making related to money management my students demonstrate the ability to	Weighted Mean	Verbal Interpretation	Rank
1. make careful decisions when spending their money.	3.13	Above Average	2
2. consider the long-term effects before making financial choices.	2.98	Above Average	7.5
3. ask for advice when unsure about money-related decisions.	2.98	Above Average	7.5
4. prioritize the needs over their wants when purchasing an items.	3.07	Above Average	4.5
5. avoid borrowing money for unnecessary purposes.	3.09	Above Average	3
6. assess the pros and cons before making a purchase.	3.03	Above Average	6
7. take responsibility for their financial decisions.	3.23	Above Average	1
8. look for product description and benefit before purchasing an items.	3.07	Above Average	4.5
COMPOSITE MEAN	3.07	Above average	

As presented in the table an overall composite mean of 3.07, interpreted as “Above Average,” indicates that students generally demonstrate a satisfactory level of financial decision-making

competence. This suggests that learners possess fundamental financial literacy skills necessary for responsible money management.

The highest-rated indicator was “Take responsibility for their financial decisions” with a weighted mean of 3.23, implies that students are capable of owning the consequences of their financial actions, reflecting maturity in handling money-related responsibilities. This was followed by “Make careful decisions when spending their money,” with a weighted mean of 3.13, indicate that students are cautious in spending and are aware of the risks associated with unnecessary debt. In contrast, the lowest-ranked indicator is “Consider the long-term effects before making financial choices” and “Ask for advice when unsure about money-related decisions”, with a weighted mean of 2.98, the findings suggest that students may lack deeper foresight and consultation practices in financial decision-making.

1.3 Level of Financial and Entrepreneurial Skills of Students in terms of Risk Taking and Problem Solving

Table 4 presents the level of junior high school students’ risk-taking and problem-solving skills in relation to financial and entrepreneurial competencies.

Table 4
Level of Junior High School Students’ Financial Skills and Entrepreneurial Skills
in terms of Risk-taking and Problem-Solving

Relative to risk-taking and problem- solving my students demonstrate the ability to	Weighted Mean	Verbal Interpretation	Rank
1. try new approaches and ideas in project even if the financial outcome is uncertain.	3.08	Above Average	7
2. make decisions even when there is a possibility of failure after considering cost and benefits.	3.07	Above Average	8
3. remain calm when solving unexpected problems in activities or projects especially in budget or resource limitation.	3.11	Above Average	4
4. analyze situation, costs, and available resources carefully before choosing a solution.	3.10	Above Average	5
5. take responsibility for their financial and business choices in difficult situations.	3.09	Above Average	6
6. look for alternative solutions to manage available resources when the first plan does not work.	3.17	Above Average	2.5

7. accept challenges that push them beyond their comfort zone, enhance entrepreneurial skills and improve the ability to generate income.	3.20	Above Average	1
8. find ways to overcome financial obstacles and operational challenges during project implementation.	3.17	Above Average	2.5
COMPOSITE MEAN	3.12	Above Average	

As illustrated in the table a composite mean of 3.1240, interpreted as “Above Average,” indicates that students generally demonstrate a commendable level of ability in handling risks and solving problems in financial and business-related situations. This suggests that learners are capable of applying critical thinking and adaptability when faced with challenges.

The level of financial and entrepreneurial skills of junior high school students in terms of risk-taking and problem solving skills reflected a composite mean of 3.12, interpreted as “Above Average.” The highest-rated indicator was “Accept challenges that push them beyond their comfort zone, enhance entrepreneurial skills and improve the ability to generate income,” with a weighted mean of 3.19, this implies that students are open to growth opportunities and are willing to take calculated risks, which is a key trait in entrepreneurship. This was followed by “Look for alternative solutions to manage available resources when the first plan does not work” and “Find ways to overcome financial obstacles and operational challenges during project implementation” both obtained a weighted mean of 3.17, indicate that students possess resilience and flexibility in addressing financial and operational problems. In contrary, the indicator “Make decisions even when there is a possibility of failure after considering cost and benefits” ranked lowest with a weighted mean of 3.07 although still within the “Above Average” range, this indicates that students may be cautious when facing potential failure.

1.4 Level of Financial and Entrepreneurial Skills of Students in terms of Communication and Marketing Skills

Table 5 shows the level of financial and entrepreneurial skills of students in terms of communication and marketing skills.

Table 5
Level of Junior High School Students' Financial Skills and Entrepreneurial Skills in terms of Communication and Marketing Skills

Relative to communication and marketing skills my students demonstrate the ability to	Weighted Mean	Verbal Interpretation	Rank
1. explain the features and benefits of their products and services ideas to others with clear words and appropriate tone of voice.	3.12	Above average	7
2. promote their product or services with clarity during school presentation, exhibits or trade fair.	3.20	Above average	3.5
3. use clear arguments persuasive techniques to encourage others to support or purchase their product.	3.10	Above average	8
4. use appropriate language when marketing their product and services.	3.20	Above average	2
5. respond effectively and confidently to questions about their customer to their product or services.	3.18	Above average	5
6. adjust their communication in explaining their products and services based on their audience.	3.15	Above Average	6
7. listen to feedback about their products and services and use it for its improvement.	3.24	Above Average	1
8. present their products and service in an organized and convincing manner.	3.20	Above Average	3.5
COMPOSITE MEAN	3.17	Above Average	

As revealed in the table a composite mean of 3.1738, interpreted as “Above Average,” indicates that students generally demonstrate effective communication and marketing abilities necessary for

entrepreneurial activities. This suggests that learners are capable of expressing ideas, promoting products, and interacting with potential customers with a reasonable level of confidence and clarity.

The highest-rated indicator was “Listen to feedback about their products and services and use it for its improvement” with a weighted mean of 3.24, which implies that students value customer input and are open to improving their products and services based on feedback. This was followed by “Use appropriate language when marketing their product and services,” with 3.20 as weighted mean, shows that students are mindful of how they communicate with their audience. On the other hand the lowest ranked indicator On the other hand, “Use clear arguments and persuasive techniques” with a weighted mean of 3.10 although still within the “Above Average” level this suggest that while students can communicate, their persuasive and explanatory skills may still need further development.

2.Extent of Utilization of Teaching Strategies

This section presents the extent of utilization of teaching strategies of TLE teachers. It specifically examined the teaching strategies related to written task and practical activities. The result provided insights into different strategies use by the teachers in developing financial and entrepreneurial skills of their students.

2.1Extent of Utilization of Teaching Strategies in terms of Written Task

Written task is an effective teaching strategy that helpstudent’s process information actively, have a reflection on different concept, and apply learning into real- life situation. In financial and entrepreneurial education, written task such as business reflection, business essay, formative and summative quiz, budgeting exercises, and creating a simple business plan allow student to build and develop their critical thinking skills, decision making, and problem-solving skills.

Table 6 presents the extent of utilization of teaching strategies in Technology and Livelihood Education (TLE) in terms of written tasks.

Table 6
Extent of Utilization of Teaching Strategies in terms of Written Task

In teaching Technology and Livelihood Education (TLE), relative to written task I...	Weighted Mean	Verbal Interpretation	Rank
1. regularly assign pretest and posttest that assess students’ understanding in financial and entrepreneurial concepts.	3.52	Highly Utilized	5
2. prepare written activities such as reflections, worksheets, and essays.	3.54	Highly Utilized	4

3. create written activity that require my students to apply their financial and entrepreneurial knowledge to real-life situations.	3.43	Moderately Utilized	7
4. use journals papers to help student connect lessons to personal financial experiences.	3.23	Moderately Utilized	8
5. incorporate problem-solving or case-based questions in written activities.	3.44	Moderately Utilized	6
6. use formative assessment such as short quizzes or written activity to checks to monitor student understanding during the lesson.	3.64	Highly Utilized	1
7. use summative assessment to evaluates students' financial and entrepreneurial competency at the end of lesson.	3.55	Highly Utilized	2.5
8. allow my student to express their own idea, plans or business concept using written outputs.	3.55	Highly Utilized	2.5
COMPOSITE MEAN	3.49	Moderately Utilized	

As shown in the table a composite mean of 3.49, interpreted as moderately utilized. This indicates that while written strategies are frequently employed by teachers, there is still room for more consistent and enhanced integration in classroom instruction.

The highest-rated indicator was the “Use of formative assessments such as short quizzes and written activity to checks to monitor student understanding during the lesson.” with a weighted mean of 3.64, interpreted as highly utilized, suggests that teachers prioritize continuous monitoring of student learning, which is essential in ensuring understanding of financial and entrepreneurial concepts. This was followed by “Use summative assessment to evaluates students’ financial and entrepreneurial competency at the end of lesson” and “Allow my student to express their own idea, plans or business concept using written output,” with a weighted mean of 3.55 interpreted as “Highly Utilized”. These results indicate that teachers employ a variety of written assessment strategies to evaluate and enhance students’ knowledge and skills. In contrast, the lowest- ranked indicator was “Use journals papers to help student connect lessons to personal financial experiences.” with a weighted mean of 3.23 interpreted as “Moderately Utilized” which means that while teachers are using written tasks, they may

not fully maximize higher-order thinking strategies that require application, analysis, and real-life integration.

2.2 Extent of Utilization of Teaching Strategies in terms of Practical Activities

Table 7 presents the extent of utilization of teaching strategies in Technology and Livelihood Education (TLE) in terms of practical activities.

Table 7
Extent of Utilization of Teaching Strategies in terms of Practical Activities

In teaching Technology and Livelihood Education (TLE), relative to practical activities I...	Weighted Mean	Verbal Interpretation	Rank
1. regularly conduct activities that require direct student participation for example market simulation activities.	3.49	Moderately Utilized	7.5
2. use actual demonstrations to explain concepts in TLE lessons like showing how to create a business plan.	3.54	Highly Utilized	4.5
3. provide opportunities for students to perform practical tasks during class such as presenting their product prototype.	3.49	Moderately Utilized	7.5
4. facilitate student in step by step exercise such as creating marketing strategies during skill-based activities.	3.52	Highly Utilized	6
5. incorporate the use of materials, tools, or resources in classroom activities.	3.63	Highly Utilized	1.5
6. allows student to engage in hands-on product production.	3.63	Highly Utilized	1.5
7. utilize role-playing or scenario-based activities in lessons.	3.54	Highly Utilized	4.5
8. integrate practice sessions before introducing new lessons.	3.59	Highly Utilized	3
COMPOSITE MEAN	3.55	Highly Utilized	

As revealed in the table a composite mean of 3.55, interpreted as highly utilized. This indicates that teachers strongly emphasize experiential and hands-on learning approaches, which are essential in developing students' financial and entrepreneurial competencies.

The highest-rated indicator was the "Incorporate the use of materials, tools, or resources in classroom activities" and "Allows student to engage in hands-on product production", with a weighted mean of 3.64, interpreted as "Highly Utilized", indicates that teachers prioritize continuous monitoring of student learning, which is essential in ensuring understanding of financial and entrepreneurial concepts. This was followed by "Integrate practice sessions before introducing new lessons," with a weighted mean of 3.59 interpreted as "Highly Utilized," indicating that teachers prepare students through guided experiences and interactive strategies. In contrary, the lowest- ranked indicator were "Regularly conduct activities that require direct student participation for example market simulation activities" and "Provide opportunities for students to perform practical tasks during class such as presenting their product prototype," with a weighted mean of 3.49 interpreted as "Moderately Utilized" implies that while practical activities are generally emphasized, more complex and integrative tasks such as simulations and product presentations are not as consistently implemented.

3. Relationship between the Assessment on the Level of the Financial and Entrepreneurial Skills of the Student and on the Extent of the Teaching Strategies

Table 8 indicated that the relationship between the level of students' financial and entrepreneurial skills and the extent of utilization of teaching strategies.

TABLE 8
Relationship between the Extent of the Utilization of Teaching Strategies in terms of Written Task and on the Level of the Financial and Entrepreneurial Skills.

Variables	r- value	p- value	Decision in HO	Conclusion
Budgeting and Good Saving Practices	0.297	0.000	Reject	Highly Significant
Decision-Making related to Money Management	0.263	0.000	Reject	Highly Significant

Risk Taking and Problem Solving	0.339	0.000	Reject	Highly Significant
Communication and Marketing Skills	0.687	0.000	Reject	Highly Significant

TABLE 9

Relationship between the Extent of the Utilization of Teaching Strategies in terms of Practical Activities and on the Level of the Financial and Entrepreneurial Skills.

Variables	r- value	p- value	Decision in HO	Conclusion
Budgeting and Good Saving Practices	0.309	0.000	Reject	Highly Significant
Decision-Making related to Money Management	0.268	0.000	Reject	Highly Significant
Risk Taking and Problem Solving	0.371	0.000	Reject	Highly Significant
Communication and Marketing Skills	0.261	0.000	Reject	Highly Significant

As presented in the table 8 and table 9 the computed p-values (0.000) for all variables indicate that there is a highly significant relationship, suggesting that teaching strategies play a crucial role in shaping students' financial and entrepreneurial competencies.

The relationship between the assessment on the level of the financial and entrepreneurial skills of the student and on the extent of the utilization of teaching strategies has significant relationship. Thus, the null hypothesis with no significant relationship is rejected. Specifically, budgeting and saving practices show a positive correlation with both written tasks and practical activities as well as decision-making related to money management is also significantly correlated with written tasks and practical activities. On the other hand risk-taking and problem-solving skills show a moderate positive relationship with written tasks and a slightly higher correlation with practical activities. Notably, communication and marketing skills exhibit a strong positive relationship with written tasks and a

weaker but still significant relationship with practical activities. Overall, the results reveal that both written tasks and practical activities significantly influence the development of financial and entrepreneurial skills among students. However, practical activities appear to have a stronger impact on higher-order skills such as risk-taking and problem-solving, while written tasks are more effective in enhancing communication and marketing skills.

4.Challenges Encountered by Teachers in Developing Students Financial and Entrepreneurial Skills

Table 9 shows the challenges encountered by the teacher in developing student's financial and entrepreneurial skills

Table IV
Challenges Encountered by Teachers in Developing Students Financial and Entrepreneurial Skills

In developing my student financial and entrepreneurial skills, I encounter the following challenges.	Weighted Mean	Verbal Interpretation	Rank
1. Students struggle to apply financial concepts in real-life situations.	3.23	Agree	2
2. Sometimes the student feels unsure when making decisions related to saving or spending money.	3.30	Agree	1
3. The students lack of confidence in starting or suggesting business-related ideas.	3.18	Agree	5.5
4. The student find it hard to take risks when engaging in entrepreneurial activities.	3.18	Agree	5.5
5. Limited exposure of students to real entrepreneurial experiences or activities.	3.21	Agree	3
6. Feeling unprepared to plan or manage business-related tasks independently.	3.16	Agree	8
7. There is a lack of sufficient teaching resources or instructional materials for financial and entrepreneurial education.	3.05	Agree	10

8. Large class sizes hinder individual guidance in developing students' financial and entrepreneurial competencies.	3.18	Agree	5.5
9. Inadequate institutional support or training limits teachers' ability to develop students' entrepreneurial skills.	3.09	Agree	9
10. Time constraints limit the teacher's ability to provide continuous feedback on students' financial decision-making.	3.18	Agree	5.5
COMPOSITE MEAN	3.18	Agree	

As shown in the table a composite mean of 3.18, interpreted as agree. This indicates that teachers generally experience notable difficulties in effectively fostering these competencies among learners.

The challenges encountered by teachers in developing student's financial and entrepreneurial skills obtained composite mean of 3.18, interpreted as "Strongly Agree." The highest-rated indicator was the "Sometimes the student feels unsure when making decisions related to saving or spending money," with a weighted mean of 3.30, interpreted as "Agree", indicates that learners lack confidence in financial decision-making, which may hinder their ability to apply financial knowledge in real-life situations. This was followed by "Students struggle to apply financial concepts in real-life situations," with a weighted mean of 3.23 interpreted as "Agree," indicating a gap between theoretical knowledge and practical application. In contrary, the lowest-ranked indicator was "There is a lack of sufficient teaching resources or instructional materials for financial and entrepreneurial education," with a weighted mean of 3.05 although still interpreted as "Agree", indicating that systemic and institutional factors also contribute to the challenges faced by teachers.

5. Proposed Teaching Strategy Guide

Teaching strategy guide is designed to help TLE teacher in developing student's financial and entrepreneurial skills. It encompasses five strategy guide which are integrate experiential and practical learning activities, enhance written task-based strategies, scaffold learning for decision-making and confidence, provide adequate resources and institutional support, and blend practical and written approaches

Discussion

Students possess a solid foundation in budgeting and financial awareness, particularly in decision-making and planning. However, there is a need to enhance their consistency in saving, tracking expenses, and following financial plans. This suggests that educators should incorporate

more practical, real-life financial activities, such as simulations, budgeting exercises, and entrepreneurial projects, to strengthen students' financial discipline and application skills. The junior high school students exhibit adequate but still developing decision-making skills in money management. While they show responsibility and caution in spending, there is a need to strengthen their ability to analyze long-term financial consequences and seek guidance when necessary. This underscores the importance of integrating more comprehensive financial education strategies in teaching to further enhance students' decision-making competence and financial well-being. This finding was supported by Lusardi, A., & Mitchell, O. S. (2023), which emphasized that the ability to compare options and evaluate prices is a fundamental component of financial literacy and consumer behavior. This finding also supports the study of Kumar and Srinivasa (2025) titled *The Impact of Financial Literacy on Personal Financial Decision-Making: A Study with Students*, which emphasized that financial literacy enhances accountability and responsible financial behavior among learners.

The junior high school students demonstrate adequate and developing risk-taking and problem-solving skills. They are generally open to challenges and capable of generating solutions; however, there is still a need to strengthen their confidence in making decisions under uncertainty and potential failure. This highlights the importance of enhancing instructional strategies that promote experiential learning, critical thinking, and entrepreneurial simulations to further develop students' resilience and decision-making competence. This finding is supported by the study of Frisancho, V. (2023). *Is school-based financial education effective? Immediate and long-lasting impacts on students and teachers*. This is a strong replacement because it shows that school-based financial education improved students' financial literacy and also led to later improvements in financial autonomy and financial savviness, which supports the idea that learners need more than basic knowledge to make sound financial.

Overall, the findings indicate that junior high school students demonstrate adequate and developing communication and marketing skills. They are particularly strong in accepting feedback and using appropriate language, but may need further enhancement in persuasive communication and product explanation. This underscores the importance of incorporating interactive presentations, marketing simulations, and communication-based activities in teaching strategies to further strengthen students' entrepreneurial communication competencies. This finding is supported by Philip Kotler et al. (2023) in *Marketing Management (16th Edition)*, which emphasized that customer feedback is essential in refining products and achieving market success.

The teachers demonstrate strong use of traditional written assessments such as quizzes, tests, and structured activities. However, there is a need to strengthen the use of experiential, reflective, and application-based written strategies to further enhance students' financial and entrepreneurial competencies. This implies that TLE instruction should incorporate more authentic tasks, such as case analyses, financial journals, and business planning exercises, to bridge the gap between theoretical knowledge and real-world application. This finding is also directly relevant by Sirianansopa et al. (2024). The study concluded that formative assessment improves students' learning outcomes by providing timely and effective feedback through mentoring-supported assessment processes.

Overall, the findings indicate that teachers effectively utilize practical and hands-on teaching strategies in TLE, particularly in engaging students through tools, materials, and guided activities. However, there is a need to further strengthen the implementation of integrative and real-world activities such as simulations and product presentations. This suggests that enhancing resource support, time allocation, and training opportunities may help teachers maximize the use of practical strategies and further develop students' financial and entrepreneurial. This finding is supported by Duchatelet, Cornelissen, and Volman (2024) found that experiential learning environments in higher education support generic learning outcomes and help students connect theory with real-world practice.

These findings imply that a balanced integration of both teaching strategies is essential in TLE instruction to holistically develop students' competencies. Teachers are therefore encouraged to combine written and experiential learning approaches to maximize student engagement and skill acquisition

Overall, the findings indicate that challenges in developing students' financial and entrepreneurial skills stem from a combination of learner-related factors (e.g., lack of confidence, limited application skills), instructional constraints (e.g., time and class size), and institutional limitations (e.g., resources and training). This finding was supported by Xiao and Porto (2022) in the International Journal of Consumer Studies, titled "Financial Education and Consumer Financial Capability: A Review of Recent Evidence", which emphasized that financial anxiety and uncertainty are common barriers affecting learners' financial behavior and decision-making skills. These results imply that schools should enhance experiential learning opportunities, provide adequate instructional resources, and strengthen teacher training programs. Moreover, teachers are encouraged to adopt innovative and student-centered strategies that promote real-life application, critical thinking, and entrepreneurial engagement to address these challenges

effective.

Conclusions

Based on the findings of this study, the following conclusions are drawn:

- 1.The level of financial and entrepreneurial skills of student as assessed by the teacher in terms of all indicators are above average.
- 2.The extent of utilization of teaching strategies as assessed by the respondent relative to written task is moderately utilized while in terms of practical activities it is highly utilized.
- 3.There is significant relationship between relationship between the assessment on the level of the financial and entrepreneurial skills of the student and on the extent of the utilization of teaching strategies.



4. Teacher encountered different challenges in developing student's financial and entrepreneurial skills such as student feels unsure when making decisions related to saving or spending money, also students struggle to apply financial concepts in real-life situations, and limited exposure of students to real entrepreneurial experiences or activities.

5. To help teachers in developing and improving student's financial and entrepreneurial skills, Teaching Strategy Guide was developed.

References

A.Books

- Armstrong, G. et. Al (2023). Principles of Marketing, 19th edition Global Edition, 19th edition published with in another Pearson listing
- Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice Hall.
- Kolb, D. A. (2014). Experiential learning: Experience as the source of learning and development. FT press.
- Karunakaran, S. (2023). Entrepreneurial competencies in student companies at school: Development of a research instrument. In FGF Studies in Small Business and Entrepreneurship (pp.147-168). Springer.
- Keller, K. L., & Swaminathan, V. (2021). Strategic brand management: Building, measuring, and managing brand equity (5th ed.). Pearson
- Leoni, S. (2023). A Historical Review of the Role of Education: From Human Capital to Human Capabilities. Review of Political Economy, 37(1), 227–244.
- Organization for Economic Co-operation and Development. (2023). PISA 2022 financial literacy framework. OECD Publishing.
- OECD (2023) “Financial competence framework for children and youth in the European Union, developed jointly by the European Commission and the OECD/INFE, and approved in July 2023
- OECD/INFE and European Commission. (2023). Financial competence framework for children and youth in the European Union.
- OECD. (2024). PISA 2022 Results, Volume IV. PISA 2022 examined 15-year-olds’ understanding of money matters and highlighted the importance of ensuring that all students receive financial education, especially those who need it most.
- Chernev, A. et., al (2021). Marketing Management, 16th edition. Pearson’s Global Edition
- Rwabukwe, A., & Jeje, K. (2025). Entrepreneurship education and entrepreneurial intentions: What actually works? In The role of entrepreneurial ecosystems in sustainable local economic development (pp. 183–209). AOSIS Books.
- Stewart, I. (n.d.). Intelligent Risk Taking & Problem-Solving. Florida: Kaplan.

B.Unpublished/Published Materials

- Abbes, I. (2024). Shaping Entrepreneurial Intentions Through Education: An Empirical Study. *Sustainability*, 16(22), 10070. <https://doi.org/10.3390/su162210070>
- Acharya, B., & Chandra, R. (2024). Fostering entrepreneurial skills through business simulations: The pedagogical approach of the "business simulation-games" course. In *Advances in business information systems and analytics* (pp. 142–165). IGI Global. <https://doi.org/10.4018/979-8-3693-2359-5.ch007>
- Al-Fattal, A. (2024). Entrepreneurial Aspirations and Challenges among Business Students: A Qualitative Study. *Administrative Sciences*, 14(5), 101. <https://doi.org/10.3390/admsci14050101>
- Chen, J., & Han, Q. (2025). Innovative game-based teaching of entrepreneurship for secondary education: The little business leader. *European Conference on Game-Based Learning*, 19(1), 97–105. <https://doi.org/10.34190/ecgbl.19.1.3977>
- Chen, T., & Wang, C. (2022). Multidimensional financial literacy and high-school financial education: Developing personal financial capabilities. *Educational Psychology Review*, 34(3), 1567-1589.
- Fearon, C., Furlotti, M., van Vuuren, W., & McLaughlin, H. (2021). Developing new opportunities, entrepreneurial skills and product/service creativity: A 'Young Enterprise' (YE) perspective. *Studies in Higher Education*, 46(6), 1209-1223. <https://doi.org/10.1080/03075079.2019.1672643>
- Gao, Y., Wang, X., Lu, J., Chen, B., & Morrin, K. (2024). Entrepreneurial fear of failure among college students: A scoping review of literature from 2010 to 2023. *Heliyon*, 10(10), e31072. <https://doi.org/10.1016/j.heliyon.2024.e31072>
- Garbuzova, T., Malashihina, T., Kalimullina, G. K., Grigorieva, O. V., & Konovalova, E. Y. (2024). Integration of economic education into the educational process: Formation of financial literacy of students. *Perspectives of Science and Education*, 9(7), 330–345. https://doi.org/10.55186/2413046x_2024_9_7_330
- Ghimire, B., Dahal, R. K., & Joshi, S. P. (2023). The effect of financial literacy and entrepreneurship education on students' intentions to pursue entrepreneurial careers. *Pravaha*, 29(1), 1-12. <https://doi.org/10.3126/pravaha.v29i1.71408>
- Gibert, R., Adams, I., & Kang, S. (2024). From saving to budgeting: Unpacking the impact of a culturally relevant financial literacy summer program. *Cogent Education*, 11(1), Article 2387900. <https://doi.org/10.1080/2331186X.2024.2387900>

- Hadley, G. R. L. (2025). Embedded entrepreneurship pedagogy: Six key practices for an entrepreneurial classroom. *Thinking Skills and Creativity*, 55, Article 101993. <https://doi.org/10.1016/j.tsc.2025.101993>
- Hammoda, B. (2023). Extracurricular Activities for Entrepreneurial Learning: A Typology Based on Learning Theories. *Entrepreneurship Education and Pedagogy*, 8(1), 142-173. <https://doi.org/10.1177/25151274231218212> (Original work published 2025)
- Indrašienė, V., Jegelevičienė, V., Merfeldaitė, O., Penkauskienė, D., Pivorienė, J., Railienė, A., & Sadauskas, J. (2023). Critical Reflection in Students' Critical Thinking Teaching and Learning Experiences. *Sustainability*, 15(18), 13500. <https://doi.org/10.3390/su151813500>
- Katrenčík, I., & Zatrochová, M. (2024). Inovácie vo vzdelávaní: Nástroj na rozvoj investičnej gramotnosti a rozhodovacích zručností v akademickom vzdelávaní [Innovations in education: A tool for developing investment literacy and decision-making skills in academic education]. *Maneko*, 1(1), 15–28. <https://doi.org/10.61544/mnk/cmvv4039>
- López-Núñez, M. I., Rubio-Valdehita, S., Armuña, C., & Perez-Urria, E. (2022). EntreComp questionnaire: A self-assessment tool for entrepreneurship competencies. *Sustainability*, 14(5), Article 2983. <https://doi.org/10.3390/su14052983>
- Luvisa, L. E., & Boff, E. (2025). UEPS na educação financeira: Conexões interdisciplinares para a formação cidadã [Multidisciplinary teaching unit in financial education: Interdisciplinary connections for citizenship formation]. *Scientia cum Industria*, 12(1), 1-10. <https://doi.org/10.18226/23185279.e241322>
- Madhu, R. (2022). Educação financeira no ensino médio: Levando conhecimentos financeiros e empreendedores a alunos adolescentes do município de Ubá – MG [Financial education in high school: Bringing financial and entrepreneurial knowledge to adolescent students in the municipality of Ubá – MG] [Doctoral dissertation, Universidade Federal de Juiz de Fora]. <https://doi.org/10.34019/ufjf/di/2021/00414>
- Mancone, S., Tosti, B., Corrado, S., Spica, G., & Zanon, A. (2024). Youth, money, and behavior: The impact of financial literacy programs. *Frontiers in Education*, 9, Article 1397060. <https://doi.org/10.3389/feduc.2024.1397060>
- Monteza, D. (2021). Creative thinking in secondary education: Conceptual definitions and didactic strategies. *Revista Innova Educación*, 4(1), 120-135. <https://doi.org/10.35622/j.rie.2022.01.009.en>

- Morris, T., Maillet, S., & Koffi, V. (2022). Financial knowledge, financial confidence and learning capacity on financial behavior: a Canadian study. *Cogent Social Sciences*, 8(1). <https://doi.org/10.1080/23311886.2021.1996919>
- Monteza, D. (2021). Creative thinking in secondary education: Conceptual definitions and didactic strategies. *Revista Innova Educación*, 4(1), 120-135. <https://doi.org/10.35622/j.rie.2022.01.009.en>
- Morris, T., Maillet, S., & Koffi, V. (2022). Financial knowledge, financial confidence and learning capacity on financial behavior: a Canadian study. *Cogent Social Sciences*, 8(1). <https://doi.org/10.1080/23311886.2021.1996919>
- Nogueira, M. C., Almeida, L., & Tavares, F. O. (2025). Financial Literacy, Financial Knowledge, and Financial Behaviors in OECD Countries. *Journal of Risk and Financial Management*, 18(3), 167. <https://doi.org/10.3390/jrfm1803016>
- Nyoka, S., Kakumura, F., & Mutevere, M. (2024). Adapting social and financial education for adolescents in Zimbabwe: A qualitative study of the Aflateen+ program. *Children and Youth Services Review*, 156, Article 107345.
- Nzembayie, K. F., Buckley, S., & Costin, Y. (2024). Action design learning: A conceptual framework for experiential entrepreneurship education. *Education + Training*, 66(8/9), 789–807. <https://doi.org/10.1108/ET-09-2023-0354>
- Park, J.-H., & Kim, S.-J. (2025). Creativity and innovation in digital-era entrepreneurship: A systematic review and competency framework. *Digital*, 5(4), Article 46. <https://doi.org/10.3390/digital5040046>
- Pham, K. D., & Le, V. L. T. (2023). Nexus between Financial Education, Literacy, and Financial Behavior: Insights from Vietnamese Young Generations. *Sustainability*, 15(20), 14854. <https://doi.org/10.3390/su152014854>
- Sadiyah, A., & Setyawan, A. (2025). Linking creativity, practical entrepreneurship education (PKWU), and problem-solving: A theoretical framework. *Communications in Humanities and Social Sciences*, 5(1), Article 90. <https://doi.org/10.21924/chss.5.1.2025.90>
- Sánchez-García, R., & Reyes-de-Cózar, S. (2025). Enhancing Project-Based Learning: A Framework for Optimizing Structural Design and Implementation—A Systematic Review with a Sustainable Focus. *Sustainability*, 17(11), 4978. <https://doi.org/10.3390/su17114978>

- Seikkula-Leino, J., Salomaa, M., Jónsdóttir, S. R., McCallum, E., & Israel, H. (2021). EU policies driving entrepreneurial competences—Reflections from the case of EntreComp. Sustainability, 13(15), Article 8178. <https://doi.org/10.3390/SU13158178>
- Soares, G. A., Roller, M. I. M., & Dolzane, M. I. F. (2024). Didactic sequence for teaching financial planning: An applied critical thinking approach. Teaching and Teacher Education, 138, Article 104256.
- Walidayni, M., Lemba, N., & Gau, M. W. (2023). Membangun jiwa wirausaha: Pelatihan kewirausahaan berbasis produk kreatif untuk siswa SMA [Building entrepreneurial spirit: Creative product-based entrepreneurship training for high school students]. Abdimas Nusantara, 1(1), 15–24. <https://doi.org/10.64198/abdinusantara.v1i1.15>
- Watti, R., Dihadjo, D., & Azizah, N. (2025). Edukasi siswa SMA Negeri 2 Mojokerto kelola keuangan pribadi berbasis akuntansi [Educating students of SMA Negeri 2 Mojokerto on personal financial management based on accounting]. Masyarakat Berkarya, 2(3), 45-58. <https://doi.org/10.62951/karya.v2i3.2025>
- Weng, X., Chiu, T. K., & Tsang, C. C. (2022). Promoting student creativity and entrepreneurship through real-world problem-based maker education. Thinking Skills and Creativity, 45. doi:10.1016/j.tsc.2022.101046
- Zulfiqar, S., Al-reshidi, H. A., Al Moteri, M. A., Feroz, H. M. B., Yahya, N., & Al-Rahmi, W. M. (2021). Understanding and Predicting Students' Entrepreneurial Intention through Business Simulation Games: A Perspective of COVID-19. Sustainability, 13(4), 1838. <https://doi.org/10.3390/su13041838>

C.Journals, Magazines, and Periodicals

- Agustini, A. A. (2025). Manajemen pembiayaan SMKN 1 Pangandaran dalam meningkatkan kompetensi wirausaha siswa [Financial management of SMKN 1 Pangandaran in improving student entrepreneurship competence]. Jurnal Studi Administrasi dan Keuangan, 4(1), 25-38. <https://doi.org/10.62515/staf.v4i1.605>
- Akimova, E. N., Korshunova, N., Fedorov, A., Shatayeva, O. V., & Shipkova, O. (2021). Digital transformation and financial literacy: Reconceptualizing competencies for individualized learning. International Journal of Educational Technology, 8(2), 45-62.
- Alshebami and Aldhyani (2022), in "The Roles of Financial Literacy and Overconfidence in Investment Decisions
- Arga, K. I., et al. (2025). Experiential learning methods for instilling expense tracking and budget maintenance habits in adolescents. Journal of Financial Education, 51(2), 45-62.

- Avendaño Castro, W. R., Rueda Vera, G., & Velasco Burgos, B. M. (2021). Percepciones, conocimientos y habilidades financieras en estudiantes de educación media. *Revista Venezolana De Gerencia*, 26(93), 15-32. <https://doi.org/10.52080/RVG93.15>
- Bakoush, M. (2022). Evaluating the role of simulation-based experiential learning in improving satisfaction of finance students. *The International Journal of Management Education*, 20(3), Article 100690. <https://doi.org/10.1016/j.ijme.2022.100690>
- Barcelona, K. E., Daling, B. A., Doria, P., Balangiao, S. J., Mailes, M. J., Chiang, P. M., & Ubatay, D.(2023). Challenges and Opportunities of TLE Teachers in Philippine Public Schools: An Inquiry. *British Journal of Multidisciplinary and Advanced Studies*, 4(4), 44-60. doi:10.37745/bjmas.2022.0247
- Berthet, V. (2022). The impact of cognitive biases on professionals' decision-making: A review of four occupational areas. *Frontiers in Psychology*, 12, 802439.
- Boto-García and colleagues' 2022 article, "The role of financial socialization and self-control on saving habits."
- Cordero, J. M., Gil-Izquierdo, M., & Pedraja-Chaparro, F. (2022). School financial education and student financial literacy: A cross-country analysis.
- Campo-Tenera, L., Sepulveda, P. A., & Olivero-Vega, E. (2022). Entrepreneurship in adolescence: A structural model of personal, social, and educational factors. *Journal of Innovation and Entrepreneurship*, 11(1), Article 20. <https://doi.org/10.1186/s13731-022-00201-y>
- Chidyau, A. J. (2022). Practicality of Skills Emphasized by Economics Subject Teachers to Enhance Entrepreneurship Ability among Secondary School Students in Moshi District, Tanzania. *British Journal of Education*. <https://doi.org/10.37745/BJE.2013/VOL10N132032>
- Costa, D., et al. (2022). A dual-process approach to cooperative decision-making under uncertainty..
- Dacles, J. B., & Evangelio, L. T. (2024). Effectiveness of cooperative learning intervention in TLE performance among secondary students. *EPRA International Journal of Environmental Economics, Commerce and Educational Management*, 11(5). doi:10.36713/epra16986
- Djoa, D. D., Sunyono, S., & Rosidin, U. (2023). Psychological antecedents of smart risk-taking in high school learning contexts. *International Journal of Educational Methodology*, 9(3), 493-506. <https://doi.org/10.12973/ijem.9.3.493>
- Dominguez, S., & Svihla, V. (2023). A review of teacher implemented scaffolding in K–12.

- Social Sciences & Humanities Open, 8(1), 100613.
<https://doi.org/10.1016/j.ssaho.2023.100613>
- Duchatelet, D., Cornelissen, F., & Volman, M. (2024). Features of experiential learning environments in relation to generic learning outcomes in higher education: A scoping review. *Journal of Experiential Education*, 47(3), 400–423.
<https://doi.org/10.1177/10538259231211537>
- Effendi, M., et al. (2023). Emotional intelligence and its contribution to financial decision-making and financial well-being.
- Esmond, B., Kaur, B., & Atkins, L. (2024). Beyond subjects and skills or crossing the divide? From additionality to complementarity in college enrichment. *Journal of Curriculum Studies*, 57(2), 133–149. <https://doi.org/10.1080/00220272.2024.2425629>
- Español, R. D., Miñoza, J. T., & Zosa, L. (2024, March 09). Financial literacy and entrepreneurial behavior of Junior high school students: Basis for TLE management plan. *Ho Chi Minh City Open University Journal of Science - Economics and Business Administration*, 14(4), 2808. doi:10.46223/HCMCOUJS.econ.en.14.4.2808.2024
- Fariana, R. E., Surindra, B., & Arifin, Z. (2021). The influence of financial literacy, lifestyle and self-control on the consumption behavior of economic education students. *International Journal of Research*, 10(8), 67-78. <https://doi.org/10.52403/IJRR.20210867>
- Farzana Sultana Doly (2024). Transforming Education through Project-Based Learning in the Classroom. *International Journal of Research and Innovation in Social Science (IJRISS)*, 8(10), 1234-1244. <https://doi.org/https://dx.doi.org/10.47772/IJRISS.2024.8100104>
- Frisancho, V. (2023). Is School-Based Financial Education Effective? Immediate and Long-Lasting Impacts on Students and Teachers. *The Economic Journal*, 133(651), 1147–1180.
- Gilenko, E. V., & Chernova, A. (2021). Theoretical relationships between financial literacy and adolescent saving behavior: Complexity in mechanisms. *Journal of Youth Studies*, 24(6), 789-805.
- Jambo, J., Macalisang, D., Calimpong, M., & Novida, L. (2025). Senior high school students' entrepreneurial skills, knowledge, and competencies. *Journal of Interdisciplinary Perspectives*, 2(5), 1-12. <https://doi.org/10.69569/jip.2024.0205>
- Jazuli, J., Lestari, A. D. S., Sudarmiatin, S., & Firmansyah, R. (2023). Digital marketing literacy integration in entrepreneurship learning: A conceptual model. *International Journal of Economics and Management Research*, 3(1), 45-62. <https://doi.org/10.55606/ijemr.v3i1.160>

- Joo and colleagues / Journal of Family and Economic Issues (2022). Predicting financial well-being using the financial capability framework.
- Kehinde, A. J. (2024). School- and community-based framework for credit and consumption education. *International Journal of Financial Education*, 9(1), 23-41.
- Khalil, H., Hashim, K. F., Rababa, M., & Atallah, S. (2024). Shaping the entrepreneurial mindset: Exploring the impact of entrepreneurship education on entrepreneurial intentions among university students in the UAE: The mediating role of individual entrepreneurial orientation. *International Journal of Educational Research*, 127. doi:10.1016/j.ijer.2024.102430
- Kicová, E., Michulek, J., Poniščiaková, O., & Fabuš, J. (2025). When financial awareness meets reality: Financial literacy and Gen Z's entrepreneurship interest. *International Journal of Financial Studies*, 13(3), 171. <https://doi.org/10.3390/ijfs13030171>
- Lone, U. M., & Bhat, S. A. (2022). Impact of financial literacy on financial well-being: a mediational role of financial self-efficacy. *Journal of Financial Services Marketing*, 1–16. Advance online publication. <https://doi.org/10.1057/s41264-022-00183-8>
- Lusardi, A., & Mitchell, O. S. (2023). The importance of financial literacy: Opening a new field. *Journal of Economic Perspectives*, 37(4), 137–154.
- Lucić, A., Uzelac, M., & Previšić, A. (2023). Theoretical underpinnings of consumers' financial capability: A systematic literature review and research agenda. *International Journal of Consumer Studies*.
- Maraño, M. P. R., & Briones, E. O. (2023). Integration of entrepreneurial competencies and students' potential in business venture among TLE junior high school. *International Journal of Research Publications*, 129(1), 1-15. <https://doi.org/10.47119/ijrp1001291720235249>
- Maroma, A. P. (2021). Enhancing entrepreneurship awareness among Grade 10 junior high school students: Pathways to livelihood opportunities. *International Journal of Multidisciplinary Approach Research and Science*, 5(8). <https://doi.org/10.11594/ijmaber.05.08.04>
- Nagaraj, N., Landry, M., Anirudhan, R., et al. (2025). From knowledge to empowerment: Evaluating financial literacy and gender equitable attitudes in adolescent girls in Ghana. *International Journal of Gender and Women's Studies*, 13(1), 1-18. <https://doi.org/10.15640/ijgws.vol13p1>

- Oladayo, G. O., et al. (2023). Peer-led education as a conceptual model for building financial capability: The role of peer influence and cultural fit. *Journal of Adolescent Research*, 38(4), 567-591.
- Özdemir, B. (2022). Financial literacy in education process: Literature study. *The Universal Academic Research Journal*, 4(2), 64–70. <https://doi.org/10.55236/tuara.977841>
- Pallawi, Singh, S., & Kumar, M. (2022). Employability And Entrepreneurial Skills In The Digital Era: A Critical Review. *Academy of Marketing Studies Journal*, 26(4), 1-11.
- Paul, L., & Knudson, S. (2023). Revisioning financial education: Shortcomings and opportunities for transformation. *Journal of the Canadian Association for Curriculum Studies*, 21(2), 45-
67. <https://doi.org/10.25071/1916-4467.40733>
- Pinto, A. P., & Reshma, K. (2021). mpact of Project-Based Learning on Entrepreneurial and Social Skills Development. *Journal of Engineering Education Transformations*, 34, 593-598.
- Porfírio, J. A., Felício, J. A., Carrilho, T., & Jardim, J. (2023). Entrepreneurial culture and education: Shaping adolescent self-efficacy and intentions. *Journal of Business Research*, 158, Article 113521. <https://doi.org/10.1016/j.jbusres.2022.113521>
- Ramirez, H. D. (2025). Experiential Learning in TLE Cookery Towards Soft Skills Among Grade 10 Learners. *International Journal of Multidisciplinary: Applied Business and Education Research*, 6(8), 22. doi:10.11594/ijmaber.06.08.22
- Rehman and Mia (2024), in “Determinants of Financial Literacy: A Systematic Review and Future Research Directions
- Resmi, S., Pahlevi, R. W., Kusumawati, I., Suyitno, S., & Wibowo, U. B. (2024). Study of enhancement of student entrepreneurship competence through digital learning models. *Journal of Electrical Systems*, 20(3s), 1830–
1841. <https://doi.org/10.52783/jes.2343>
- Rodriguez, J. M. P., Velez, C., & Palallos, L. Q. (2024). Social media influence on senior high students' spending behavior for a financial management plan. *International Journal of Management, Knowledge and Learning*, 13(2), 273-286. <https://doi.org/10.53615/2232-5697.13.273-286>
- Rosal, H. C. (2024). Narratives of Technology and Livelihood Education Teachers in the Use of Authentic Assessment. *Journal of Education Learning and Management*, 1(2), 27-40. doi:10.69739/jelm.v1i2.173

- Sadovska, V., Rastorgueva, N., Migliorini, P., & Melin, M. (2024). Engagement of stakeholders in action-oriented education for sustainability: a study of motivations and benefits and development of a process model. *The Journal of Agricultural Education and Extension*, 31(4), 575–597. <https://doi.org/10.1080/1389224X.2024.2415607>
- Santos, J. M., Rivera, R. J., Bermas, J. A., Dalusung, J. G., Mendoza, J. R., Roque, C. L., & Roque, J. B. (2024). The Effectiveness of Game-Based Assessment Tools (GBAT) in Teaching Technology and Livelihood Education (TLE). *International Journal of Research and Innovation in Social Science (IJRISS)*, 8(12), 1349-1360.
doi:10.47772/IJRISS.2024.8120114
- Saragih, S., Margaretha, Y., Kristine, F., et al. (2025). Membentuk pemimpin masa depan melalui pelatihan pengelolaan keuangan [Shaping future leaders through financial management training]. *Yumary: Jurnal Pengabdian kepada Masyarakat*, 6(1), 1-12. <https://doi.org/10.35912/yumary.v6i1.3837>
- Sarsale, M. (2021). Linking financial literacy and entrepreneurial characteristics. *International Journal of Economics Business and Accounting Research (IJEBAR)*, 5(1), 1-12.
doi:10.29040/ijebar.v5i1.1508
- Sarsale, M. S. (2021). Linking financial literacy and entrepreneurial characteristics. *International Journal of Economics, Business and Accounting Research*, 5(1), 272-284. <https://doi.org/10.29040/IJEBAR.V5I1.1508>
- Sithole, B. M. (2025). Experiential learning approaches in entrepreneurship education: A systematic review. *Journal of Entrepreneurship Education*, 28(1), 1–18.
- Srinivasa N, and Kumar. A.K.M. (2025), “The Impact of Financial Literacy on Personal Financial Decision-Making: A Study with Students
- Sumaiya, B., Srivastava, S., Jain, V., & Prakash, V. (2022). The Role of Effective Communication Skills in Professional Life. *World Journal of English Language*, 12(3), 134.
doi:10.5430/wjel.v12n3p134
- Suparno, & Saptono, A. (2021). Entrepreneurship Education and Its Influence on Financial Literacy and Entrepreneurship Skills in College. *Journal of Entrepreneurship Education*, 21(4).

Stovner, R. B., & Klette, K. (2022). Teacher feedback on procedural skills, conceptual understanding, and mathematical practices: A video study in lower secondary mathematics classrooms. *Teaching and Teacher Education*, 110, 103593.

<https://doi.org/10.1016/j.tate.2021.103593>

Taj, S., & Reddy, C. P. (2024). Assessing the role of financial literacy in enhancing personal financial decision-making among students. *RVIM Journal of Management Research*, 16(1), 25–31. <https://doi.org/10.70599/rvim/2024/303>

Táncosová, J., Lincényi, M., & Fabuš, M. (2023). Curriculum redesign for financial education: Content and method objectives for reducing economic hardship. *Journal of Curriculum Studies*, 55(3), 312-329.

Tornino, Janelee, Ferdinez, Emil (2025). Financial Literacy, Behavior, and Challenges in Teaching: An Insight for a Literacy Program. *International Journal of Research and Innovation in Social Science (IJRISS)*, 9(07), 2932-2965.

<https://doi.org/https://dx.doi.org/10.47772/IJRISS.2025.907000242>

Van Raaij, Riitsalu, and Pöder (2023), “Direct and indirect effects of self-control and future time perspective on financial well-being.”

Wable, G., Grandner, M., et al. (2022). The impact of logically coherent messaging and tailored narrative strategies on persuasive communication.

Ye, C., Chapman, R., & Bompiedi, R. (2025). Developing future-proof graduates through experiential and project-based learning. *Journal of Education for Business*, 1–8. <https://doi.org/10.1080/08832323.2025.2567060>

Xiao and Porto (2022) in the *International Journal of Consumer Studies*, titled “Financial Education and Consumer Financial Capability: A Review of Recent Evidence”, which highlighted that distinguishing needs from wants is a critical foundation of sound financial decision-making and long-term financial well-being.

Zebua, S., Zebua, M. S., Gea, I. L., et al. (2025). Edukasi manajemen keuangan sejak dini: Membangun generasi melek finansial di SMP Negeri 5 Gunungsitoli [Early financial management education: Building a financially literate generation at SMP Negeri 5 Gunungsitoli]. *Kreatif: Jurnal Pengabdian Masyarakat*, 5(2), 234-

245. <https://doi.org/10.55606/kreatif.v5i2.7537>

Zhu, T. (2022). Consumer financial education and risky financial asset holdings. *International Journal of Consumer Studies*.

D. Legal Documents

DepEd Order No. 022, s. 2021. (2021). Integration of Financial Education into the K–12 Basic Education Curriculum. Department of Education.

DepEd Order No.8, s. 2015. (2015). Policy Guidelines on Classroom Assessment for the K to 12 Basic Education Program. Department of Education

E. Electronic Resources

Andales, J. (2025, March 28). Recordkeeping: Definition, Principles, and it's Value for Businesses. Retrieved November 18, 2025, from Safety Culture: <https://safetyculture.com/topics/recordkeeping>

Anderson, C. (2024, September 30). What is teaching strategies? Retrieved November 18, 2025, from Focus Keeper: <https://focuskeeper.co/glossary/what-is-teaching-strategies>

Barcenas, G. (n.d.). What are Marketing Skills. Retrieved November 18, 2025, from Job Hero: <https://www.jobhero.com/career-guides/resume/skills/hard/marketing>

Busiess World (2023, July 04), BSP's Latest Strides in Educating and Protecting Consumers, Retrived January 20, 2026 from <https://www.bworldonline.com/special-features/2024/07/03/605850/bsps-latest-strides-in-educating-and-protecting-consumers/>

Canonizado, I. (2024, October 17). Written Works, Performance Tasks, and Quarterly Assessments as Components of Learners' Academic Performance, Retrieved from

<https://discover.hubpages.com/education/written-works-performance-tasks-and-quarterly-assessments-as-components-of-learners-academic-performance>

Dieffenbacher, S. F. (2023, December 25). Creativity and Innovation: Differences, Examples & Definitions. Retrieved November 18, 2025, from Digital Leadership: <https://digitalleadership.com/blog/creativity-and-innovation/>

Franco, B. (2025, January 23). Bangko Sentral Pushes for Financial Literacy Among Filipino Teens. Retrieved January 20, 2026 from https://www.pep.ph/pepalerts/fyi/185000/bangko-sentral-financial-literacy-filipino-teens-a717-20250123?utm_source

Ganti, A. (2025, July 08). What Is a Budget? Plus 11 Budgeting Myths Holding You Back. Retrieved November 18, 2025, from Investopedia: <https://www.investopedia.com/terms/b/budget.asp>

Gibson, K. (2022, June 07). 7 Finance Skills Employers Look for on a Resume. Retrieved November 18, 2025, from Harvard Business School: <https://online.hbs.edu/blog/post/finance-skills-employers-look-for-on-a-resume>

- Guido, M. (2025, May 26). Project-Based Learning (PBL): Examples, Benefits & 10 Classroom Strategies. Retrieved November 18, 2025, from Prodigy: <https://www.prodigygame.com/main-en/blog/project-based-learning>
- Jacklynne, D. (2024, August 01). Importance of Spending Habits. Retrieved November 18, 2025, from Grades Fixer: <https://gradesfixer.com/free-essay-examples/importance-of-spending-habits/>
- McCombes, S (2023), Descriptive Research, Definition, Types, Methods & Examples, retrieved from <https://www.scribbr.com/methodology/descriptive-research/>
- Main, P. (2023, July 19). Hands-On Learning. Retrieved November 18, 2025, from Structural Learning: <https://www.structural-learning.com/post/hands-on-learning>
- Vito, J. (n.d.). Opportunity Seeking: Unlocking Entrepreneurial Success. Retrieved November 18, 2025, from Fabulous Asian Lifestyle: <https://www.fabasianlifestyle.com/opportunity-seeking-unlocking-entrepreneurial-success/>
- Worsfold, H. (n.d.). Decision making for entrepreneurs: Why are easy decisions often the hardest part? Retrieved November 18, 2025, from Growth Lending: <https://growthlending.com/knowledge-bank/decision-making-for-entrepreneurs>