



# Perception of the Mathematics of Investment Curriculum and Cash Management Practices Among BSED-Mathematics Students: Basis for a Curriculum Action Plan

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Originality: 100% • Grammarly: 95% • Plagiarism: 0%

## ABSTRACT

### Article History

Received: 30 Jan 2026  
Revised: 18 Aug 2026  
Accepted: 13 Sept 2026  
Published: 31 Oct 2026

**Keywords**— Mathematics of Investment, financial literacy, curriculum perception, cash management, lifestyle

This study examined the relationship between BSED–Mathematics students’ perceptions of the Mathematics of Investment curriculum and their level of cash management at City College of Calapan. Grounded in Self-Perception Theory, the Theory of Planned Behavior, and the Theory of Reasoned Action, the research aimed to determine how students’ understanding of the course objectives, content, and required competencies relates

to their cash management practices. Employing a quantitative descriptive-correlational research design, the study involved 121 purposively selected BSED–Mathematics students who had completed the Mathematics of Investment course.



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Data were gathered using a validated researcher-made questionnaire and analyzed through the mean and Pearson's Product-Moment Correlation Coefficient. The findings revealed that students generally perceived the Mathematics of Investment curriculum positively in terms of its objectives, content, and required competencies, while their cash management skills were rated high across school-related, lifestyle-related, and personal financial aspects. Correlational analysis revealed a mixed pattern: specific curriculum dimensions were significantly related to specific cash management dimensions—most notably objectives with lifestyle-related finances, content with personal-related finances, and required competencies with school-related finances—yet the overall relationship between students' perception of the curriculum and their level of cash management was very low and not statistically significant ( $r = .08$ ,  $p = .119$ ). This suggests that while certain aspects of the curriculum are meaningfully associated with specific financial behaviors, students' cash management is largely shaped by factors beyond curriculum perception alone. Based on these findings, a curriculum action plan was developed to strengthen the weaker areas of curriculum delivery—particularly compound interest computation and financial terminology—and to promote outcomes-based teaching and learning that supports financial literacy and long-term financial well-being among future educators.

## INTRODUCTION

College is an integral stage where young individuals are introduced to the concept of financial independence. It provides the first opportunity for managing personal finances, making budgeting decisions, and handling fundamental financial responsibilities with a certain level of autonomy. As students navigate this new chapter, they encounter the challenge of balancing academic demands with sound financial management decisions. Effective cash management during college does not solely entail daily monetary survival but also serves as a foundation for lifelong financial stability (Jayasinghe, 2015; Widener, 2017).

A significant proportion of students at City College of Calapan, particularly those enrolled in the Bachelor of Secondary Education major in Mathematics (BSED–Math), enjoy the benefits of financial assistance to sustain their education. This monetary aid comes in various forms, such as support from the City Government of Calapan through the Educational Financial Assistance Program (EduFAP), assistance from the Commission on Higher Education (CHED), the Tertiary Education Subsidy (TES), and grants and scholarships from different politicians and private institutions. A recent institutional survey revealed that 85% of BSED–Math students receive financial assistance from

EduFAP, 3% from TES, 7% from political assistance, and 5% from scholarship grants with allowances. Ranging from ₱2,500 to ₱20,000 per semester, these substantial amounts of assistance illustrate the institution's commitment to making education accessible and inclusive; however, they also highlight the need for proper financial discipline among recipients (Parmitasari et al., 2020).

Despite the timely distribution and the amount of monetary assistance extended to students, many still struggle to exercise effective financial management. Recent survey findings indicate that a substantial percentage of respondents allocate funds for essential expenditures such as transportation (93%), allowances (90.2%), and school fees (28.7%). Nevertheless, a considerable portion of their budget is spent on non-essential expenses, including leisure activities (89.6%) and other discretionary purchases (72%). Given these data, there exists a discernible gap between financial aid and responsible monetary management. Several contributing factors include limited financial literacy, inadequate budgeting skills, and impulsive spending behaviors associated with newly acquired independence (Tunrayo et al., 2020; Manju, 2016). Moreover, unexpected emergencies often disrupt financial plans, exacerbating students' financial instability. Nonetheless, not all students fall into this pattern, as some demonstrate responsible money management by saving or investing portions of their assistance, illustrating the potential impact of financial education (Chinyabuuma et al., 2020; Zulfaris et al., 2020).

The recognition of these emerging financial literacy challenges has been reflected in the Philippine government's enactment of Republic Acts No. 10679 and 10922, which promote financial literacy, entrepreneurship, and responsible financial conduct among Filipino youth. These laws underscore the importance of integrating financial education into academic curricula, aligning with national priorities and Commission on Higher Education (CHED) mandates (Casingal, 2022; Yushita, 2017). The inclusion of the Mathematics of Investment course under CHED Memorandum Order No. 75, series of 2017 bridges theoretical mathematical concepts with practical financial applications such as interest computation, annuities, amortization, and investments. It aims to develop students' ability to make informed financial decisions, interpret numerical data accurately, and apply mathematical reasoning to real-life financial scenarios (De Bock et al., 2019; Dituri et al., 2019; Moreland, 2021; Ozkale & Aprea, 2023; Zhou, 2010).

BSED–Math students believe that the Mathematics of Investment course offers a significant avenue for enhancing their financial literacy skills (Kumari, 2020). The course objectives, content, and required competencies equip pre-service teachers with the analytical tools necessary for sound financial planning.

It further aligns theoretical mathematical proficiency with practical skills that reinforce discipline beyond classroom learning. When effectively delivered, this course can influence students' perceptions and meaning-making of financial responsibility, helping them confidently apply learned principles in managing monetary resources (e.g., allowances and scholarships) prudently (Hagan et al., 2020).

Curriculum design serves as a cornerstone in improving financial behavior. A well-engineered curriculum can strengthen responsible financial practices through the integration of lessons that emphasize saving, budgeting, and investing (dos Santos et al., 2021; Farinella et al., 2017; Larracilla-Salazar et al., 2019; Lópezrodríguez & Lópezzordóñez, 2022). To achieve this, the researcher proposes the development of a Curriculum Action Plan that outlines targeted strategies to enhance student engagement, promote applied financial literacy, and support competencies required for sustainable cash management. It should also integrate experiential learning activities such as case analyses, simulations, and financial planning projects that expose students to real-world applications of mathematical investment principles.

Beyond curriculum structure are students' personal and social factors that shape their financial management habits. An effective financial manager possesses competencies in financial literacy, budgeting skills, and goal-setting abilities. Students who set clear financial goals while adhering to budget limitations tend to prioritize long-term financial stability over short-term gratification (Donnelly et al., 2012; Herawati et al., 2018). Consequently, exposure to different investment opportunities allows them to understand financial risks and rewards, helping them develop their risk appetite and enhancing overall decision-making skills. Integrating these facets into the Mathematics of Investment curriculum is consistent with the behavioral outcomes of financial literacy education (Bamforth et al., 2017).

Given this background, the present study not only seeks to determine the relationship between BSED–Math students' perceptions of the Mathematics of Investment curriculum and their level of cash management but also aims to propose a curriculum action plan that strengthens outcomes-based teaching and learning. This ensures that financial literacy and cash management are not merely theoretical concepts but lived competencies among future educators. Through this investigation, the study aspires to contribute to both institutional improvement and national development goals by aligning higher education with the principles of sustainable financial empowerment. By identifying key gaps and strengths within the Mathematics of Investment curriculum, the findings will serve as a foundation for enhancing financial literacy education, promoting

responsible economic behavior, and supporting students' long-term financial well-being (Abdullah et al., 2019; Ariffin et al., 2017; Nurhayati & Nurodin, 2019; Waranyasathid & Htin, 2020).

## FRAMEWORK

Encompassing the three theoretical pillars of this study are: the *Self-Perception Theory*, which supports how individuals form attitudes mirroring their observed behaviors, thereby providing insights into how students' experiences in the Mathematics of Investment course influence their perceptions of its relevance and usefulness; the *Theory of Planned Behavior*, which highlights how attitudes, social expectations, and perceived control over one's actions influence an individual's intentions, particularly in relation to students' sense of confidence in handling financial matters; and the *Theory of Reasoned Action*, which suggests that a person's behavioral intentions are shaped by their attitudes and the social norms they adhere to, offering a framework to understand how students' values and peer influences shape financial practices. Together, these theories establish a comprehensive basis for examining the link between curriculum perception and financial behavior.

## OBJECTIVES OF THE STUDY

The primary objective of this study is to determine the relationship between the perception of BSED–Mathematics students regarding the Mathematics of Investment curriculum and their level of cash management. Specifically, this study aims to: (1) Assess the perception of BSED–Mathematics students regarding the Mathematics of Investment curriculum in terms of objectives, content, and required competencies. (2) Determine the level of cash management among BSED–Mathematics students in terms of school-related finances, lifestyle-related finances, and personal-related finances. (3) Examine the relationship between the perception of BSED–Mathematics students regarding the Mathematics of Investment curriculum and their level of cash management. (4) Develop a curriculum action plan based on the findings of the study to enhance the effectiveness of the Mathematics of Investment curriculum and improve students' cash management practices.

## METHODOLOGY

### Research Design

In this study, the researchers employed a quantitative research approach using a descriptive-correlational design to examine the relationship between the perception of the Mathematics of Investment curriculum and the level of cash management among BSED–Mathematics students at City College of Calapan. This design was appropriate for describing variables and determining their associations without establishing causality. Quantitative research involves the collection and analysis of numerical data to produce objective and statistically reliable findings (Goertzen, 2017), allowing the study to measure students' perceptions, behaviors, and cash management practices in quantifiable terms. Descriptive research was used to observe and present the characteristics of the respondents and their cash management practices without manipulating variables, thereby providing an accurate picture of existing conditions within the group (Siedlecki, 2020). Meanwhile, correlational research was employed to determine the extent of the relationship between curriculum perception and cash management, enabling the researchers to assess how students' understanding of the Mathematics of Investment course is associated with their financial management practices (Seeram, 2019).

### Research Site

The study was conducted at City College of Calapan, a local government-funded higher education institution located in Calapan City, Oriental Mindoro, Philippines. The institution offers the Bachelor of Secondary Education major in Mathematics (BSED–Mathematics) program, under which the Mathematics of Investment course is delivered in accordance with CHED Memorandum Order No. 75, series of 2017. City College of Calapan was purposively selected as the research site because a substantial proportion of its BSED–Mathematics students are recipients of government and private financial assistance, making it an appropriate setting for examining the relationship between curriculum perception and cash management. The setting likewise afforded the researchers convenient access to participants who had already completed the Mathematics of Investment course and could therefore provide informed responses relevant to the study's objectives.

Participants

The researchers utilized purposive sampling in selecting the 121 participants of the study. This non-probability sampling method involves the deliberate selection of respondents who possess characteristics or qualifications that align with the study’s objectives (Obilor, 2023). In this case, the researchers deliberately chose individuals who have taken the course Mathematics of Investment, as this criterion is important for the study. By selecting the 121 participants who have completed this course, the researchers aimed to gather insights and information specifically related to the Mathematics of Investment curriculum and their cash management. The use of purposive sampling allowed the researchers to focus on individuals with relevant experiences and knowledge, enhancing the study’s ability to explore the research topic in depth.

**Table 1**  
*In identifying sample composition*

| BSED-Math Students   | Population |
|----------------------|------------|
| 2 <sup>nd</sup> Year | 69         |
| 3 <sup>rd</sup> Year | 21         |
| 4 <sup>th</sup> Year | 31         |
| Total                | 121        |

The table illustrates the participants of the study which specifically focused on BSED-Mathematics students who have completed the Mathematics of Investment course. It reflects the number of participants from each academic year: 69 from the 2nd year, 21 from the 3rd year, and 31 from the 4th year, making a total of 121 participants in the study population.

Moreover, this study specifically involved BSED-Math students due to their academic program’s emphasis on mathematics education, and the objective of equipping them with a stable understanding of mathematical principles and applications. By targeting BSED-Math students, who possess a deep understanding of mathematical concepts, this study aimed to examine the correlation of their perception in the Mathematics of Investment curriculum and their level of cash management. It is acknowledged, however, that the use of purposive sampling drawn from a single institution limits the representativeness of the sample; thus, the findings and conclusions of this study are delimited to the respondent group

and should not be generalized to BSED-Mathematics students in other colleges or universities without further validation.

### **Instrumentation**

The study utilized a researcher-made questionnaire to assess the perception in Mathematics of Investment curriculum and the level of cash management among BSED-Math students at City College of Calapan. It is comprised of 2 parts. The first part contained behavioral statements for the perception of BSED-Math students in Mathematics of Investment curriculum in terms of its objectives, content, and required competencies containing 7 statements each. The second part of the questionnaire comprised of three variables for cash management: school-related finances, lifestyle-related finances, and personal- related finances, each containing 10 statements.

### **Validation of the Instrument**

The researchers' Thesis Adviser and the Director for Research in City College of Calapan were involved in the validation process of the test questions. Each item in the questionnaire underwent careful scrutiny to assess its relevance to the topics addressed within each variable. The validation team assessed the clarity, appropriateness, and alignment of each question with the research objectives to ensure the questionnaire effectively measured the intended constructs. Their expertise and insights contributed to the refinement and validation of the test questions, enhancing the overall quality and validity of the research instrument.

### **Reliability of the Instrument**

A test-retest method was employed to assess the reliability of the validated questionnaire. Ten non- participants from BSED-Mathematics, out of the 131 participants, were asked to complete the questionnaire twice with a time interval in between with the primary purpose of evaluating the consistency and stability of the questionnaire over time. The reliability was determined using Pearson's correlation coefficient ( $r$ ), which measured the strength and direction of the linear relationship between the scores obtained from the initial administration and the retest. A higher correlation coefficient indicated greater reliability, suggesting that the questionnaire consistently measured the intended constructs.

**Table 2**  
*In measuring reliability of the questionnaire in terms of perception of BSED-Math Students in Mathematics of Investment and Level of Cash Management*

| Perception of the BSED-Math Students in Mathematics of Investment Curriculum |                    |                       |                |
|------------------------------------------------------------------------------|--------------------|-----------------------|----------------|
| Variables                                                                    | Reliability Result | Relationship          | Interpretation |
| Objectives                                                                   | 0.80               | Very High Correlation | Reliable       |
| Content                                                                      | 0.77               | High Correlation      | Reliable       |
| Required Competencies                                                        | 0.73               | High Correlation      | Reliable       |
| Level of Cash Management of BSED-Math Students                               |                    |                       |                |
| Variables                                                                    | Reliability Result | Relationship          | Interpretation |
| School-Related Finances                                                      | 0.78               | High Correlation      | Reliable       |
| Lifestyle-Related Finances                                                   | 0.73               | High Correlation      | Reliable       |
| Personal – Related Finances                                                  | 0.79               | High Correlation      | Reliable       |

The self-made questionnaire on perception in Mathematics of Investment curriculum and level of cash management of BSED-Math Students demonstrated reliability across the variables examined. The reliability coefficients for objectives, content, and required competencies were 0.80, 0.77, and 0.73, respectively. Similarly, the reliability coefficients for school-related finances, lifestyle-related finances, and personal-related finances were 0.78, 0.73, and 0.79, respectively, indicating high correlations among the questionnaire items. This suggested that the questionnaire was consistent and reliable in measuring the perception in Mathematics of Investment curriculum and level of cash management in these domains. It is acknowledged as a delimitation of this study that item-total correlation and internal consistency measures such as Cronbach's alpha were not computed, as reliability was established solely through the test-retest method. Future studies are encouraged to complement test-retest reliability with item-total correlation and internal consistency analysis for a more comprehensive assessment of instrument reliability.

## Scaling and Quantification

**Table 3**

*Scaling for the Interpretation of Perception in Mathematics of Investment Curriculum*

| Scale | Statistical Limits | Verbal Description |
|-------|--------------------|--------------------|
| 4     | 3.28 – 4.00        | Strongly Agree     |
| 3     | 2.52 – 3.27        | Agree              |
| 2     | 1.76 – 2.51        | Disagree           |
| 1     | 1 – 1.75           | Strongly Disagree  |

*Pimentel, Jonald. (2019). Some Biases in Likert Scaling Usage and its Correction. International Journal of Sciences: Basic and Applied Research (IJSBAR). 45. 183 – 191.*

Table 3 provides the statistical limit and verbal description for the perception of BSED-Math students in Mathematics of Investment curriculum. Each scale point represents a different level of agreement with the statements related to Mathematics of investment curriculum in terms of its objectives, content, and required competencies. A score of 4 on the scale indicates a strong agreement. A score of 3 represents agreement. A score of 2 signifies disagreement, and lastly, a score of 1 reflects a strong disagreement.

**Table 4**

*Scaling for the Interpretation of the Level of Cash Management*

| Scale | Statistical Limits | Verbal Description | Interpretation |
|-------|--------------------|--------------------|----------------|
| 4     | 3.28 – 4.00        | Strongly Agree     | Very High      |
| 3     | 2.52 – 3.27        | Agree              | High           |
| 2     | 1.76 – 2.51        | Disagree           | Low            |
| 1     | 1 – 1.75           | Strongly Disagree  | Very Low       |

*Pimentel, Jonald. (2019). Some Biases in Likert Scaling Usage and its Correction. International Journal of Sciences: Basic and Applied Research (IJSBAR). 45. 183 – 191.*

The table provides the statistical limits and corresponding verbal descriptions for the level of cash management, categorized by a 4-point scale. Each scale point represents a different level of agreement with the statements related to cash management. These categories represent different levels of agreement with the statements about cash management. A score of 4 on the scale indicates a strong agreement, reflecting a very high level of cash management. A score of 3 represents agreement, indicating a high level of cash management. A score of 2 signifies disagreement, suggesting a low level of cash management. Lastly, a score of 1 reflects a strong disagreement, indicating a very low level of cash management.

**Table 5**

*Description of the Correlation Coefficient*

| Coefficient of the Correlation ( $r$ ) | Interpretation        |
|----------------------------------------|-----------------------|
| $0.00 < r \leq \pm 0.19$               | Very Low Correlation  |
| $\pm 0.2 \leq r \leq \pm 0.39$         | Low Correlation       |
| $\pm 0.4 \leq r \leq \pm 0.59$         | Moderate correlation  |
| $\pm 0.6 \leq r \leq \pm 0.79$         | High Correlation      |
| $\pm 0.8 \leq r \leq \pm 1.0$          | Very High Correlation |

**Interpretation of the Correlation Coefficient**

Table 5 presents the interpretation of the correlation coefficient ( $r$ ), which assesses the strength and direction of the relationship between students' perception of the *Mathematics of Investment* curriculum and their level of cash management. The correlation coefficient ranges from  $-1.0$  to  $+1.0$ , where the absolute value reflects the degree of association between the variables. A value between  $0.00$  and  $\pm 0.19$  indicates a very low correlation, suggesting a negligible relationship. Correlation values from  $\pm 0.20$  to  $\pm 0.39$  denote a low correlation, representing a weak linear connection. A moderate correlation is observed when the coefficient falls between  $\pm 0.40$  and  $\pm 0.59$ , implying a noticeable yet not strong association. Values ranging from  $\pm 0.60$  to  $\pm 0.79$  correspond to a high correlation, signifying a substantial linear relationship between the variables. Lastly, coefficients from  $\pm 0.80$  to  $\pm 1.00$  reflect a very high correlation, indicating an almost perfect linear relationship where the variables tend to move closely together.

**Data Gathering Procedure**

The data needed for the study was collected using a set of well-defined

procedures. The first step involved making a letter of request approved by the college administrator, ensuring that the study was authorized and supported. Convenience and accessibility for the participants were ensured by conducting the data gathering procedure using Google Forms. The questionnaire was created and hosted on the Google Forms platform, allowing participants to provide their responses online. Additionally, to reach a wider range of participants efficiently, the link to the questionnaire was distributed through the Messenger app using group chats specifically created for this research study. Thorough explanations for each question were given to the participants via Messenger group chat to ensure clarity.

Moreover, once the participants completed the survey, the data collection instruments were retrieved. The collected data were then organized, tabulated, and prepared for analysis using appropriate statistical tools. Statistical software was utilized to analyze and interpret the data, yielding valuable insights relevant to the research objectives. By following these rigorous procedures, the study aimed to gather reliable and meaningful data, contributing to the body of knowledge in the field.

### **Ethical Considerations**

Prior to data collection, the researchers secured approval from the College administration through a formal letter of request endorsed by the appropriate offices. Participation in the study was entirely voluntary, and prospective respondents were informed of the purpose, nature, and scope of the study before agreeing to take part. Informed consent was obtained from all participants, who were assured that they could withdraw at any time without penalty. The researchers observed strict confidentiality and anonymity in handling all responses; no personally identifying information was collected through the Google Forms questionnaire, and the data gathered were used solely for the purposes of this study. All responses were stored securely and accessed only by the researchers.

In observance of responsible and transparent research practices, the researchers disclose the use of an artificial intelligence (AI) tool in the preparation of this manuscript. Specifically, ChatGPT (OpenAI) was used in a limited capacity to improve the readability, grammar, and overall language clarity of the manuscript. The AI tool was not used in the formulation of the research design, the construction or validation of the research instrument, the collection of data, the statistical analysis, or the interpretation of the results, all of which were performed solely by the researchers. After using the tool, the authors carefully reviewed, verified, and revised the content as necessary and take full responsibility for the integrity, accuracy, and originality of the published work.

## Data Analysis Procedure

The data analysis procedure employed descriptive statistics to present an overview of the study variables. Measures such as the mean were used to summarize and describe the central tendency of the data collected. Furthermore, the Pearson Product-Moment Correlation Coefficient was applied to determine the relationship between the independent and dependent variables.

The statistical methods that were used in the analysis of data gathered are the following:

**Mean.** This statistical tool was used to describe the perception in Mathematics of Investment curriculum and the level of cash management of students.

**Pearson's Product Moment Correlation Coefficient.** This statistical tool was used to determine the relationship between the Mathematics of Investment and the cash management of the BSED-Math students. Given the study's directional hypothesis that curriculum perception is positively associated with cash management, a one-tailed test was applied at 119 degrees of freedom and the 0.05 level of significance, yielding a critical r-value of 0.15; a computed r equal to or greater than this value was considered statistically significant.

## RESULTS AND DISCUSSION

This chapter presents the data gathered from the respondents through a self-made questionnaire to determine the perception of BSED-Mathematics students in Mathematics of Investment curriculum in relation to their level of cash management.

## 1. What is the perception of students in Mathematics of Investment Curriculum in terms of:

### Objectives;

**Table 6**

*Perception of BSED-Math Students in Mathematics of Investment Curriculum in terms of Objectives*

| Statements                                                                                                                                                                               | Mean | Description    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------|
| 1. I can accurately list, discuss, and differentiate various types of financial transactions involving different interest rates, annuities, and bonds.                                   | 3.75 | Strongly Agree |
| 2. I am able to apply my mathematical skills to effectively solve problems related to simple and compound interest, discounts, various types of annuities, and bonds.                    | 3.69 | Strongly Agree |
| 3. I can demonstrate the application of theories and principles in mathematics of investment within both local and international contexts.                                               | 3.74 | Strongly Agree |
| 4. I actively seek opportunities to apply the mathematics of investment in real- world business scenarios, showcasing its significance as a primary tool for professionals in the field. | 3.75 | Strongly Agree |
| 5. I am proficient in utilizing mathematical techniques to analyze and evaluate investment options, making informed decisions based on risk and potential returns.                       | 3.8  | Strongly Agree |
| 6. I have developed a strong interest in studying and further exploring the mathematics of investments, recognizing its importance in the business and financial world.                  | 3.8  | Strongly Agree |
| 7. I am able to effectively communicate and explain mathematical concepts related to investment analysis, fostering understanding and engagement among peers and stakeholders.           | 3.72 | Strongly Agree |
| Overall Mean Score                                                                                                                                                                       | 3.75 | Strongly Agree |

Table 6 illustrates the mean scores representing students' perceptions of the Mathematics of Investment curriculum objectives. The results revealed a high level of agreement among respondents, with an overall mean of 3.75, indicating a

strong positive perception of the course. The highest mean score (3.80) pertained to statements highlighting students’ competence in analyzing investments and their interest in the subject matter, while the lowest mean score (3.69) still reflected agreement regarding their ability to apply mathematical skills in solving financial problems related to interest, discounts, annuities, and bonds. These findings demonstrate that the curriculum successfully provides BSED-Math students with the essential quantitative tools needed to address complex financial situations, thereby achieving its instructional goals.

Furthermore, the results affirm the curriculum’s relevance and effectiveness in enhancing students’ financial literacy and decision-making abilities. By engaging with investment principles and analytical frameworks, students develop the capacity to manage resources efficiently, make informed financial decisions, and practice responsible money management. Hence, the Mathematics of Investment course not only meets its academic objectives but also cultivates financial discipline and preparedness among future educators.

**Content;**

**Table 7**  
*Perception of BSED-Math Students in Mathematics of Investment Curriculum in terms of Content*

| Statements                                                                                                                                   | Mean | Description    |
|----------------------------------------------------------------------------------------------------------------------------------------------|------|----------------|
| 1. I can accurately calculate simple interest and apply discount calculations to various financial transactions.                             | 3.27 | Agree          |
| 2. I demonstrate a strong understanding of compound interest calculations and their practical applications.                                  | 3.02 | Agree          |
| 3. I can effectively analyze and evaluate ordinary annuities, considering the time value of money and calculating periodic payments.         | 3.03 | Agree          |
| 4. I can effectively analyze and evaluate annuity due, considering the timing of payments and calculating their present and future values.   | 3.28 | Strongly Agree |
| 5. I possess the skills to manage debt and savings effectively, utilizing amortization and sinking fund calculations.                        | 3.18 | Agree          |
| 6. I am proficient in calculating present values, future values, and periodic payments, allowing me to analyze and assess general annuities. | 3.29 | Strongly Agree |

|                                                                                                                                                           |      |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|
| 7. I have a comprehensive understanding of bonds and securities, including their valuation, yield calculations, and impact on investment decision-making. | 3.15 | Agree |
| Overall Mean Score                                                                                                                                        | 3.18 | Agree |

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Table 7 presents the mean scores on students' perceptions of the Mathematics of Investment curriculum in terms of content. The mean score of 3.18 indicates a high level of agreement, reflecting a positive perception among BSED-Math students. The highest mean (3.29) was recorded for statements highlighting students' proficiency in computing present and future values and periodic payments for annuities, consistent with Blaylock (2014), who noted that teaching annuity derivations enhances analytical skills. The lowest mean (3.02) still indicated agreement regarding students' understanding of compound interest, supporting Tschache's (2009) view that financial computation courses strengthen students' ability to make sound financial decisions.

The favorable perception of the course content signifies that students find it relevant and applicable to real-life financial situations. Such understanding enhances their capability to manage resources responsibly, particularly for those receiving financial assistance. By emphasizing investment, savings, and financial computation concepts, the curriculum promotes both academic growth and the development of financial discipline among future educators.

### Required competencies

**Table 8**  
*Perception of BSED-Math Students in Mathematics of Investment Curriculum in terms of Required Competencies*

| Statements                                                                                                                                                                          | Mean | Description    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------|
| 1. I can accurately perform financial calculations, including those related to simple and compound interest, discounts, annuities, amortization, sinking funds, and bonds.          | 3.55 | Strongly Agree |
| 2. I am proficient in applying mathematical models and formulas to analyze and evaluate investment options, considering factors such as risk, return, and time value of money.      | 3.51 | Strongly Agree |
| 3. I possess strong problem-solving skills, using mathematical concepts and techniques to effectively address investment-related challenges and make informed decisions.            | 3.45 | Strongly Agree |
| 4. I demonstrate critical thinking abilities when assessing investment scenarios, considering various factors and evaluating potential risks and returns.                           | 3.46 | Strongly Agree |
| 5. I am skilled in conducting quantitative analysis of numerical data related to investments, such as financial statements, rates of return, and investment performance evaluation. | 3.41 | Strongly Agree |
| 6. I have a solid understanding of financial concepts and terminology, allowing me to communicate and explain mathematical concepts and investment analysis effectively.            | 3.24 | Agree          |
| 7. I am able to present investment-related information to others in a clear and concise manner, both orally and in written form.                                                    | 3.27 | Agree          |
| Overall Mean Score                                                                                                                                                                  | 3.41 | Strongly Agree |

Table 8 presents the mean scores describing students’ perceptions of the *Mathematics of Investment* curriculum in terms of required competencies. The highest mean score of 3.55 was recorded for students’ agreement that the curriculum enables them to perform accurate financial computations involving interest, discounts, annuities, and bonds. Conversely, the lowest mean score of 3.24 pertained to students’ understanding of financial concepts and terminology,

indicating general agreement but suggesting areas for further enhancement. This aligns with Kim et al. (2019), who emphasized that perceived financial knowledge often exceeds objective understanding, underscoring the need for strengthened instruction in financial literacy.

The overall mean score of 3.41 reflects a favorable perception, suggesting that the curriculum effectively develops students' competencies in investment analysis and decision-making. Such competencies are essential for managing financial resources, particularly among those receiving financial assistance. By fostering analytical and decision-making skills, the *Mathematics of Investment* course empowers students to make informed financial choices, manage funds efficiently, and approach budgeting and investment with greater confidence and precision.

## 2. What is the level of cash management of BSED – Mathematics students in terms of:

### School-related finances;

**Table 9**

*Level of Cash Management of BSED – Math Students in terms of School-Related Finances*

| Statements                                                                                                   | Mean | Description    | Interpretation |
|--------------------------------------------------------------------------------------------------------------|------|----------------|----------------|
| 1. I carefully consider the necessity of purchasing school supplies before buying them.                      | 3.57 | Strongly Agree | Very High      |
| 2. I diligently compare prices and look for discounts or deals when purchasing textbooks or study materials. | 3.46 | Strongly Agree | Very High      |
| 3. I consciously stick to a budget when it comes to spending on school- related activities or events.        | 3.43 | Strongly Agree | High           |
| 4. I consistently prioritize spending on educational resources over other non-essential expenses.            | 3.4  | Strongly Agree | High           |
| 5. I always keep track of my school-related expenses to ensure they are within my allocated budget.          | 3.31 | Strongly Agree | Very High      |

|                                                                                                                         |      |                |           |
|-------------------------------------------------------------------------------------------------------------------------|------|----------------|-----------|
| 6. I consciously resist the temptation to make impulsive purchases related to school needs.                             | 3.16 | Agree          | High      |
| 7. I actively search for affordable options when it comes to school-related services                                    | 3.29 | Strongly Agree | Very High |
| 8. I deliberately avoid unnecessary or excessive spending on school- related items.                                     | 3.27 | Agree          | High      |
| 9. I plan and save in advance for major school-related expenses (e.g., department and club fees, fines, projects, etc.) | 3.34 | Strongly Agree | Very High |
| 10. I feel confident in my ability to manage my spending on school- related expenses effectively.                       | 3.4  | Strongly Agree | Very High |
| Overall Mean Score                                                                                                      | 3.37 | Strongly Agree | Very High |

Table 9 presents the level of cash management among BSED-Mathematics students in terms of school-related finances. The mean score of 3.37 indicates a very high level of financial management. The highest mean (3.57) was observed in students' assessment of the necessity of purchasing school supplies, reflecting their careful consideration in financial decisions. In contrast, the lowest mean (3.16) referred to avoiding impulsive purchases, which, while still agreed upon, suggests a potential area for improvement. These results indicate that students demonstrate financial discipline by prioritizing essential academic expenses such as tuition, projects, and materials, supporting Bona's (2017) finding that learners tend to allocate resources toward academic needs to enhance performance and independence.

The data further reveal that effective financial planning and budgeting allow students to minimize financial stress and maintain academic focus. Their ability to manage expenses responsibly promotes sound financial behavior and contributes to improved academic outcomes and overall well-being. This highlights how strong cash management practices play a vital role in fostering both academic success and personal growth among future educators.

## Lifestyle-related finances;

**Table 10**

*Level of Cash Management of BSED – Math Students in terms of Lifestyle-Related*

| Statements                                                                                    | Mean | Description    | Interpretation |
|-----------------------------------------------------------------------------------------------|------|----------------|----------------|
| 1. I always prioritize spending on experiences and leisure activities.                        | 2.9  | Agree          | High           |
| 2. I conscientiously avoid indulging in luxury items or brands.                               | 2.5  | Agree          | High           |
| 3. I carefully consider the financial implications before making lifestyle-related purchases. | 3.3  | Strongly Agree | Very High      |
| 4. I often spend money on hobbies, interests, or personal pursuits.                           | 2.7  | Agree          | High           |
| 5. I always tend to spend more on socializing and entertainment.                              | 2.6  | Agree          | High           |
| 6. I make conscious efforts to save money on lifestyle-related expenses.                      | 3.1  | Agree          | High           |
| 7. I believe it's important to maintain a certain lifestyle even if it means spending more.   | 2.8  | Agree          | High           |
| 8. I enjoy treating myself to occasional splurges or rewards.                                 | 3    | Agree          | High           |
| 9. I am mindful of my spending on non-essential items.                                        | 3.1  | Agree          | High           |
| 10. I actively seek ways to cut down on unnecessary lifestyle expenses.                       | 3.1  | Agree          | High           |
| Overall Mean Score                                                                            | 2.92 | Agree          | High           |

Table 10 presents the mean scores on BSED-Mathematics students' level of cash management in relation to lifestyle expenses. The highest mean of 3.30 indicates that students thoughtfully assess the financial impact of their lifestyle purchases, demonstrating responsible spending and efficient resource use. In contrast, the lowest mean of 2.50 reflects a moderate tendency to refrain from buying luxury or branded items, differing from the results of Bona (2018) and Singh et al. (2020), who noted greater lifestyle spending among students influenced by brand preference.

The mean score of 2.92 signifies a commendable level of financial discipline in handling discretionary expenses. Students’ ability to prioritize needs over wants shows financial awareness and maturity, particularly among those who rely on financial assistance. This careful approach enables them to manage resources wisely, focus on essential academic and personal requirements, and maintain financial stability. By practicing moderation in lifestyle choices, students demonstrate readiness for future financial responsibilities and sustained financial well-being.

**Personal-related finances?**

**Table 11**  
*Level of Cash Management of BSED – Math Students in terms of Personal -Related Finances*

| Statements                                                                      | Mean | Description | Interpretation |
|---------------------------------------------------------------------------------|------|-------------|----------------|
| 1. I prioritize spending on personal development and self- improvement.         | 3.3  | Agree       | High           |
| 2. I tend to spend more on personal care and grooming products/services.        | 3.2  | Agree       | High           |
| 3. I conscientiously avoid indulging in impulse purchases for personal items.   | 3.2  | Agree       | High           |
| 4. I carefully evaluate the value and necessity of personal-related purchases.  | 3.3  | Agree       | High           |
| 5. I am conscious of my spending on clothing, accessories, and beauty products. | 3.2  | Agree       | High           |
| 6. I make budget-conscious decisions when it comes to personal expenses.        | 3.29 | Agree       | High           |
| 7. I believe investing in personal well-being is worth the financial cost.      | 3.28 | Agree       | High           |
| 8. I enjoy treating myself to occasional luxuries or rewards.                   | 3.25 | Agree       | High           |
| 9. I am mindful of my spending on non-essential personal items.                 | 3.24 | Agree       | High           |
| 10. I actively seek ways to save money on personal-related expenses.            | 3.22 | Agree       | High           |
| Overall Mean Score                                                              | 3.24 | Agree       | High           |

Table 11 shows the level of cash management among BSED-Mathematics students regarding personal-related finances. The mean scores, ranging from 3.20 to 3.30, reflect a consistently high level of agreement among respondents. The highest mean scores (3.30) were noted for statements emphasizing personal development and the careful assessment of personal expenses, indicating students' prioritization of self-improvement and thoughtful spending. Meanwhile, statements related to personal care, grooming, and clothing yielded slightly lower but still high mean scores (3.20), suggesting mindful budgeting and avoidance of impulsive purchases.

These results correspond with Manju (2016), who noted that college students allocate a significant portion of their budget to personal necessities such as food, while Bona (2017) observed that clothing and accessories are purchased selectively but often reflect social identity and personal style. The overall mean score of 3.24 confirms that BSED-Mathematics students demonstrate a high level of financial prudence in managing personal expenses.

This finding implies that students employ budgeting and prioritization strategies that help maintain financial stability. By allocating resources effectively and exercising restraint in discretionary spending, they avoid financial strain and debt accumulation. Such responsible financial behavior enables them to meet essential needs—such as food, utilities, and transportation—while maintaining overall financial well-being and discipline.

## Relationship between the perception of students in Mathematics of Investment Curriculum and the level of cash management of BSED – Mathematics students at City College of Calapan

**Table 12**

*Relationship between the Objectives, School – Related Finances, Lifestyle – Related Finances, and Personal – Related Finances*

| IV and DV                                   | r     | r <sup>2</sup> | p - value | Interpretation                | Decision                           |
|---------------------------------------------|-------|----------------|-----------|-------------------------------|------------------------------------|
| Objectives and School – Related Finances    | 0.127 | 0.016          | 0.166     | Positive Very Low Correlation | Failed to Reject / Not Significant |
| Objectives and Lifestyle – Related Finances | 0.737 | 0.542          | 6.14E-12  | Positive High Correlation     | Rejected/ Significant              |
| Objectives and Personal – Related Finances  | 0.094 | 0.009          | 0.119     | Positive Very Low Correlation | Failed to Reject / Not Significant |
| Degrees of Freedom:                         | 119   |                |           |                               |                                    |
| Critical r – value :                        | 0.15  |                |           |                               |                                    |
| Level of Significance:                      | 0.05  |                |           |                               |                                    |

Table 12 presents the correlation between students' perception of the *Mathematics of Investment* curriculum objectives and their level of cash management. Results show a very low positive correlation between curriculum objectives and both school-related ( $r = 0.127$ ) and personal-related finances ( $r = 0.094$ ). The coefficients of determination ( $r^2 = 1.6\%$  and  $0.9\%$ ) and p-values greater than 0.05 indicate no significant relationship, suggesting that the objectives alone do not directly influence students' cash management in these areas.

Conversely, a high positive and significant correlation was found between curriculum objectives and lifestyle-related finances, explaining 54.2% of the variance. This suggests that students' perception of curriculum objectives is strongly associated with their lifestyle-related financial decisions, although this correlational finding does not establish that one causes the other. The finding supports Sezer's (2022) assertion that lifestyle plays a crucial role in psychological well-being, influencing how individuals allocate resources for personal satisfaction

and fulfillment.

**Table 13**

*Relationship between the Content, School – Related Finances, Lifestyle – Related Finances, and Personal – Related Finances*

| IV and DV                                | r     | r <sup>2</sup> | p – value | Interpretation                | Decision                           |
|------------------------------------------|-------|----------------|-----------|-------------------------------|------------------------------------|
| Content and School – Related Finances    | 0.135 | 0.018          | 0.139     | Positive Very Low Correlation | Failed to Reject / Not Significant |
| Content and Lifestyle – Related Finances | 0.245 | 0.060          | 0.006     | Positive Low Correlation      | Rejected/ Significant              |
| Content and Personal – Related Finances  | 0.593 | 0.351          | 8.01E-13  | Positive Moderate Correlation | Rejected/ Significant              |
| Degrees of Freedom:                      | 119   |                |           |                               |                                    |
| Critical r – value :                     | 0.15  |                |           |                               |                                    |
| Level of Significance :                  | 0.05  |                |           |                               |                                    |

Table 13 presents the correlation between students' perception of the Mathematics of Investment curriculum content and their level of cash management. The results show a very low positive correlation with school-related finances ( $r = 0.135$ ), a low correlation with lifestyle-related finances ( $r = 0.245$ ), and a moderate correlation with personal-related finances ( $r = 0.593$ ). The coefficients of determination ( $r^2 = 1.8\%$ ,  $6\%$ , and  $35.1\%$ ) indicate that the curriculum content explains only a small variance in school- and lifestyle-related financial management but a substantial portion in personal financial management. The corresponding p-values reveal that the latter two correlations are statistically significant.

These findings suggest that while curriculum content shows a limited association with students' management of school-related expenses, it is significantly associated with their lifestyle and personal financial behaviors. This supports the conclusions of Farinella et al. (2017), who highlighted the importance of financial education integration in promoting informed and responsible money management. By linking mathematical concepts to real-life financial contexts, the curriculum helps students develop essential budgeting, saving, and investing skills, thereby fostering financial literacy and discipline applicable both academically and personally.

**Table 14**

*Relationship between the Required Competencies, School – Related Finances, Lifestyle – Related Finances, and Personal – Related Finances*

| IV and DV                                              | r     | r <sup>2</sup> | p - value | Interpretation                | Decision                           |
|--------------------------------------------------------|-------|----------------|-----------|-------------------------------|------------------------------------|
| Required Competencies and School – Related Finances    | 0.656 | 0.431          | 3.03E-16  | Positive High Correlation     | Rejected/ Significant              |
| Required Competencies and Lifestyle – Related Finances | 0.025 | 0.0006         | 0.789     | Positive Very Low Correlation | Failed to Reject / Not Significant |
| Required Competencies and Personal – Related Finances  | 0.257 | 0.066          | 0.004     | Positive Low Correlation      | Rejected/ Significant              |
| Degrees of Freedom :                                   | 119   |                |           |                               |                                    |
| Critical r – value :                                   | 0.15  |                |           |                               |                                    |
| Level of Significance :                                | 0.05  |                |           |                               |                                    |

Table 14 shows the relationship between students' perception of the *Mathematics of Investment* required competencies and their level of cash management. Results reveal a high positive correlation with school-related finances ( $r = 0.656$ ), a low correlation with personal-related finances ( $r = 0.257$ ), and a very low correlation with lifestyle-related finances ( $r = 0.025$ ). The relationships with school- and personal-related finances are significant ( $p < 0.05$ ), while that with lifestyle-related finances is not.

These findings indicate that curriculum competencies are strongly associated with students' management of academic and personal finances but show minimal association with lifestyle-related spending. This supports Deng and Zhengmei (2023), who emphasized that developing targeted competencies enhances financial literacy and promotes responsible cash management behaviors.

**Table 15**

*Overall Relationship between the Perception of Students in Mathematics of Investment Curriculum and the Level of Cash Management of BSED-Math Students*

| IV and DV                                                                                                             | r    | r <sup>2</sup> | p - value | Interpretation                | Decision                           |
|-----------------------------------------------------------------------------------------------------------------------|------|----------------|-----------|-------------------------------|------------------------------------|
| Perception of Students in Mathematics of Investment curriculum and the Level of Cash Management of BSED-Math Students | 0.08 | 0.0064         | 0.119     | Positive Very Low Correlation | Failed to Reject / Not Significant |

The results reveal a very low positive correlation ( $r = 0.08$ ) between students' perception of the *Mathematics of Investment* curriculum and their level of cash management. The coefficient of determination ( $r^2 = 0.0064$ ) indicates that only 0.64% of the variance in cash management can be explained by students' curriculum perception. With a p-value of 0.119 ( $> 0.05$ ), the relationship is not statistically significant, suggesting that the association may occur by chance rather than reflecting a meaningful link.

These findings imply that while a slight connection exists between curriculum perception and financial behavior, it is too weak to be conclusive. Other factors—such as demographic, social, and cultural influences—likely play a stronger role in shaping students' cash management practices. This aligns with previous studies (Fazal et al., 2021; Kassim et al., 2019; Kim & Torquati, 2021; Ksendzova et al., 2017; Kulic et al., 2020; LeBaron et al., 2020; Sachitra et al., 2019; Srivalosakul et al., 2018; Sundarasan & Rahman, 2017), which emphasize that financial behavior is multifaceted and influenced by personal and contextual variables beyond curricular exposure.

The findings on the perception of BSED-Mathematics students toward the Mathematics of Investment curriculum revealed a strong level of agreement with regard to its objectives, content, and competencies. The participants expressed great interest in the subject and confidence in their ability to analyze investments. The curriculum effectively equipped them with the necessary mathematical tools to handle complex financial computations. Likewise, the BSED-Mathematics students demonstrated a high level of cash management skills across school-related, lifestyle-related, and personal-related finances. They made thoughtful financial decisions, prioritized essential expenses, avoided impulsive purchases, and exercised financial discipline, enabling them to manage their financial assistance efficiently.

The correlation analysis between the students' perception of the Mathematics of Investment curriculum and their level of cash management revealed a very weak and statistically insignificant relationship. This indicates that students' ability to manage their financial resources, particularly the money received from financial assistance, is not strongly linked to how they perceive the curriculum. While the curriculum contributes to their financial understanding, it appears that their cash management skills are influenced by other personal, social, or contextual factors beyond the scope of the course.

Despite this weak correlation, BSED-Mathematics students still expressed a high regard for the Mathematics of Investment curriculum, recognizing its role in developing their competence in handling financial calculations involving annuities and compound interest. However, there remains room for improvement in strengthening their grasp of financial concepts and terminology. Their demonstrated financial responsibility across different expense categories shows that, regardless of perception, they consistently apply prudent money management practices that contribute to their overall financial stability and preparedness for future responsibilities (Kithinji et al., 2023; Labbutan & Carbonel, 2022).

These results should be interpreted in light of several methodological limitations. First, the use of purposive sampling drawn from a single institution restricts the generalizability of the findings beyond the respondent group. Second, the data were self-reported through a researcher-made questionnaire, which may be subject to social desirability bias, particularly for behavioral statements on spending and saving. Third, the descriptive-correlational design establishes association rather than causation, so the significant subscale-level relationships reported above should not be read as evidence that curriculum perception produces particular financial behaviors. Future research using probability sampling across multiple institutions, together with longitudinal or experimental designs, would help clarify the direction and stability of these relationships.

## CONCLUSIONS

BSED-Math students highly perceived the Mathematics of Investment curriculum in equipping them with the necessary skills to handle complex financial calculations related to annuities and compound interest, but there is room for improvement in understanding financial concepts and terminology.

BSED-Math students demonstrate a highly responsible cash management across school-related, lifestyle-related, and personal-related finances.

Students' ability to manage their finances, particularly the money received from financial assistance, is not strongly influenced by their overall perception of the Mathematics of Investment curriculum, even though specific curriculum dimensions were significantly related to specific cash management dimensions, particularly required competencies with school-related finances, content with personal-related finances, and objectives with lifestyle-related finances.

The curriculum action plan proposed in this study provides a structured basis for strengthening the weaker areas of the Mathematics of Investment curriculum, particularly compound interest computation and financial terminology, to further enhance students' understanding and their ability to manage their finances responsibly.

### CURRICULUM ACTION PLAN

To address Objective 4 of this study, the following curriculum action plan translates the study's empirical findings, including the areas with the lowest perception and cash management ratings and the very low, non-significant overall relationship between curriculum perception and cash management, into targeted, actionable strategies for strengthening the Mathematics of Investment curriculum at City College of Calapan.

**Table 16**

*Proposed Curriculum Action Plan for the Mathematics of Investment Course*

| Objective                                                                                                                             | Strategies / Activities                                                                                                                                     | Persons Involved                          | Timeline                                     | Success Indicators                                                                                                   | Resources Needed                                        |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Strengthen understanding of compound interest computations, the content area with the lowest perception rating (Table 7, mean = 3.02) | Redesign compound interest lessons around real-world cases (e.g., loan and savings computations); add peer tutoring and structured problem-solving sessions | Course Instructor, BSED-Math Program Head | 1st semester of the succeeding academic year | Mean perception score for compound interest items reaches at least 3.28 ("Strongly Agree") in a follow-up assessment | Sample problem banks, updated course guide, calculators |

|                                                                                                                                                                        |                                                                                                                                                                                                    |                                                                |                                                        |                                                                                                                 |                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Improve students' grasp of financial concepts and terminology, the lowest-rated competency (Table 8, mean = 3.24)                                                      | Integrate a financial-terminology glossary and concept-mapping activities into course modules                                                                                                      | Course Instructor, BSED-Math Faculty                           | Ongoing, every semester                                | Increase in mean score for terminology-related items; positive course-evaluation feedback                       | Glossary handouts, concept-map templates                                                   |
| Reinforce resistance to impulsive purchases and mindful lifestyle spending, the lowest-rated cash management indicators (Tables 9–10)                                  | Conduct budgeting workshops and simulated spending exercises tied to course content                                                                                                                | Course Instructor, Guidance / Student Affairs Office, OPSF     | Once every semester                                    | Increase in mean scores for the relevant items; workshop attendance and pre/post-survey results                 | Budgeting simulation kits, resource speakers                                               |
| Strengthen the applied, experiential link between curriculum content and real-life cash management, in view of the very low overall correlation (Table 15, $r = .08$ ) | Embed case analyses, financial-planning projects, and investment simulations across all course units, extending beyond the objectives- and competency-related components already found significant | Course Instructor, Curriculum Committee, College Administrator | Next curriculum review cycle (within 2 academic years) | Revised syllabus reflecting experiential learning components; improved overall correlation in a follow-up study | Updated syllabus, simulation kits, coordination with EduFAP / financial assistance offices |
| Institutionalize monitoring of the curriculum's impact on students' cash management                                                                                    | Conduct periodic assessment of curriculum perception and cash management using the validated instrument; feed results into program review                                                          | BSED-Math Program Head, OPSF / M&E, Research Office            | Annually                                               | Annual M&E report; documented curriculum revisions based on findings                                            | Validated questionnaire, M&E reporting template                                            |

The proposed action plan is intended to be reviewed and adopted by the BSED-Mathematics program, in coordination with the Office of Planning and Strategic Foresight, as part of ongoing curriculum enhancement and outcomes-based teaching and learning.

## TRANSLATIONAL RESEARCH

The findings of this study may serve as a basis for enhancing the Mathematics of Investment curriculum at City College of Calapan by strengthening topics and learning activities that promote effective cash management practices among students. The results may guide faculty members in developing more contextualized and experiential learning strategies, such as budgeting exercises, financial planning activities, and investment simulations, to improve students' practical financial skills.

Furthermore, the study may support the development of financial literacy programs, seminars, and workshops designed to cultivate responsible spending, saving, and investment behaviors among college students. Parents may also utilize the findings to reinforce sound financial habits at home through informed discussions and guidance on money management. The insights generated by this research may likewise assist educational administrators in formulating policies and student support initiatives that promote financial well-being. Finally, the findings may provide empirical evidence for future researchers who seek to develop intervention programs or conduct further investigations on financial literacy and cash management among higher education students.

## ACKNOWLEDGEMENT

The researcher expresses sincere gratitude to the institution, advisers, panel members, faculty, and respondents whose guidance, support, and cooperation contributed significantly to the completion of this study. Appreciation is likewise extended to family and loved ones for their encouragement and unwavering support throughout the research process. Above all, the researcher offers heartfelt thanks to God Almighty for the wisdom, strength, and guidance that made this endeavor possible.

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