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Integrative Learning Activity Sheet for Enhancing Students' Engagement and Mathematical Skill

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Abstract*—The main purpose of the study is to determine the correlation of the Integrative Learning Activity Sheet in enhancing students' engagement and mathematical skills. This study aims to assess the level of the Integrative Learning Activity Sheet in terms of its components, characteristics, students' engagement, and mathematical skills. Furthermore, the study also seeks to find the correlation between the use of the Integrative Learning Activity Sheet and students' engagement and mathematical skills. The study employs a descriptive-correlational research design to assess the relationship between the use of the Integrative Learning Activity Sheet and students' engagement and mathematical skills. A purposive sampling technique was used to select 55 Grade 7 students from San Benito National High School. Descriptive and inferential statistical tools, including weighted mean, standard deviation, and Pearson product-moment correlation coefficient, were utilized for data analysis. The respondents gave a high assessment of the objectives, core concepts, evaluation, clarity, suitability, and usefulness of the Integrative Learning Activity Sheet. Additionally, a high level of student engagement was observed in terms of goal setting, task completion, and self-directed learning. However, students' mathematical skills were noted to be at a satisfactory level. A significant correlation was found between the use of the Integrative Learning Activity Sheet and students' engagement, leading to the rejection of the null hypothesis. However, no significant correlation was observed between the use of the Integrative Learning Activity Sheet and students' mathematical skills, resulting in the acceptance of the null hypothesis. This means that integrative learning activity sheet helped increased students' engagement in the classroom, however further used to enforce of material are needed to improve students' learning skills. Based on these findings, it is recommended that mathematics teachers integrate the use of the Integrative Learning Activity Sheet into their lessons to enhance students' engagement in the classroom. Further research may explore how integrative activities can be adapted or combined with other approaches to improve students' mathematical skills.*

I. INTRODUCTION

Teaching mathematics is an art form that requires not only a deep understanding of the subject but also the ability to connect with students and foster a love for numbers. A successful math teacher goes beyond merely presenting formulas and equations; they create engaging learning experiences that spark curiosity and make abstract concepts tangible. One of the key strategies for effective mathematics teaching is the use of diverse instructional materials, which are essential for enhancing students' understanding and engagement. Resources such as modules, workbooks, and interactive software allow learners to practice at their own pace and deepen their mathematical skills. By integrating materials like activity sheets, teachers can promote critical thinking and foster dynamic classroom engagement.

The National Council of Teachers of Mathematics (NCTM) emphasizes that problem-solving skills are enhanced when learners recognize both internal and external mathematical connections. Internal connections are relationships within mathematics itself, while external connections link math to real-world applications and other disciplines.

Therefore, the researcher intended to create integrative activity sheets, in particular, offer versatile opportunities for learning. They can include self-checking components or peer review sections, allowing students to receive immediate feedback on their work. This not only supports independent learning but also encourages collaboration and reflection among peers. The researcher strongly believed that in doing this student were engaged and improve their mathematical skills.

Moreover, when students are engaged, they often take greater ownership of their education. They set personal goals and seek out additional resources to enhance their understanding, demonstrating a commitment to their learning journey. In addition to enhancing academic achievement, this involvement cultivates a passion for learning that lasts a lifetime.

1.1 Statement of the Problem

Problem/s which were addressed by the research

This study aimed to determine the correlation of Integrative Learning Activity Sheets for enhancing the students' engagement and mathematical skill.

Specifically, it sought to answer the following questions:

1. What is the level of Integrative Learning Activity Sheets in terms of components with regards to:
   1.1 objectives;
   1.2 core concepts; and
   1.3 evaluation?
2. What is the level of Integrative Learning Activity Sheets in terms of characteristics with regards to:
   2.1 clarity;
   2.2 suitability; and
   2.3 usefulness?
3. What is the level of the students' engagement in terms of:
   3.1 goal setting;
   3.2 task completion; and
   3.3 self-directed learnings?
4. What is the level of the students' mathematical skill in terms of written test?
5. Is there a significant correlation between the integrative learning activity sheets on the students' engagement?

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6. Is there a significant correlation between the integrative learning activity sheets and students' mathematical skills?

II. Methodology

The study employs a descriptive-correlational research design to assess the relationship between the use of the Integrative Learning Activity Sheet and students' engagement and mathematical skills. A purposive sampling technique was used to select 55 Grade 7 students from San Benito National High School. Descriptive and inferential statistical tools, including weighted mean, standard deviation, and Pearson product-moment correlation coefficient, were utilized for data analysis.

III. Results and Discussion

This chapter presents, analyzes, and interprets the data gathered that showed a significant relationship between the integrative learning activity sheets on the students' engagement and students' mathematical skills.

Integrative learning activity sheet is a key component of the Mathematical Mastery program aimed at enhancing student achievement in mathematics. In this study the components in terms of objectives, core concepts and evaluation, was treated statistically using mean and standard deviation.

Table 1 presents the level of integration of learning activity sheets components in terms of objectives. It includes statements, mean scores, standard deviations, and corresponding remarks.

The computed weighted mean of 4.01 with a standard deviation 0.97 indicates a high level of assessment among respondents regarding the clarity, alignment, achievability, relevance, and critical thinking aspects of the objectives.

Overall, the results indicate that the objectives of the Integrative Learning Activity Sheet are well-structured and effectively support student learning. The high level of agreement across all components shows the importance of clearly defined, relevant, and achievable objectives in enhancing students' understanding and critical thinking skills.

TABLE 1. *Level of Integrative Learning Activity Sheets in Terms of Components with Regards to Objectives*

STATEMENTS	**MEAN**	**SD**	**REMARKS**
The objectives of the ILAS are clearly stated.	4.09	0.93	Agree
The objectives are aligned with the curriculum standards.	4.16	0.79	Agree
The objectives are achievable within the given time frame.	3.82	0.96	Agree
The objectives are relevant to the student's needs.	4.11	1.03	Agree
The objectives promote critical thinking	3.87	1.12	Agree
Weighted Mean	4.01		
SD	0.97		
Verbal Interpretation	High		

Effective activity design requires systematic planning to ensure alignment with course and program objectives. Adhering to an explicit design framework enhances the quality of learning experiences, and ongoing evaluation of learning outcomes is crucial to refining and improving instructional activities for future implementation.

TABLE 2. *Level of Integrative Learning Activity Sheets in Terms of Components with Regards to Core Concepts*

STATEMENTS	**MEAN**	**SD**	**REMARKS**
The core concepts are presented in a logical sequence	4.02	1.01	Agree
The core concepts are explained in a way that is easy to understand	3.87	1.11	Agree
The core concepts are connected to real-world applications	4.09	0.82	Agree
The core concepts are reinforced through various activities.	3.69	1.40	Agree
The core concepts are reviewed and summarized at the end of the lesson.	4.04	1.15	Agree
Weighted Mean	3.94		
SD	1.10		
Verbal Interpretation	High		

Table 2 presents the level of integration of learning activity sheets components in terms core concept. It includes statements, mean scores, standard deviations, and corresponding remarks.

The computed weighted mean of 3.94 with a standard deviation 1.10 indicates a high level of assessment among respondents regarding the core concepts that is presented in a logical sequence, progressing from foundational to more complex ideas to facilitate a smooth learning process. This means that concept explained clearly and concisely, ensuring accessibility and ease of understanding for all learners. Additionally, integrating real-world applications helps bridge the gap between theory and practice, making the lessons more relevant and meaningful. Various incorporated to reinforce key concepts, allowing students to actively engage with the material and deepen their understanding.

TABLE 3. *Level of Integrative Learning Activity Sheets in Terms of Components with Regards to Evaluation*

STATEMENTS	**MEAN**	**SD**	**REMARKS**
The evaluation methods are varied and include different types of assessments.	4.11	1.01	Agree
The evaluation methods are fair and unbiased.	3.78	0.99	Agree
The evaluation methods are communicated effectively to the students.	4.00	1.04	Agree
The evaluation methods provide feedback to the students.	4.02	1.11	Agree
The evaluation methods encourage student self-assessment.	4.15	0.93	Agree
Weighted Mean	4.01		
SD	1.02		
Verbal Interpretation	High		

Table 3 presents the level of integration of learning activity sheets components in terms of evaluation. It includes statements, mean scores, standard deviations, and corresponding remarks.

The computed weighted mean of 4.01 with a standard deviation 1.02 indicates a high level of assessment among respondents regarding the evaluation that show how evaluation methods are diverse, incorporating various types of assessments that are fair, unbiased, and effectively communicated to students. The evaluation provides

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meaningful feedback to support learning and encourage self-assessment, helping students reflect on their progress and improve their understanding. This implies that well-designed evaluation methods play a crucial role in fostering effective learning. By ensuring fairness, transparency, and diverse assessment strategies, students are more likely to engage with the evaluation process positively.

The characteristics of Integrative Learning Activity Sheets are essential because they enhance student engagement, deepen understanding, and promote meaningful learning experiences. In this study the characteristics characteristic of integrative learning activity sheet focused on clarity, suitability and usefulness, was treated statistically using mean and standard deviation.

Table 4 presents the level of integration of learning activity sheets (ILAS) Characteristics in terms of clarity. It includes statements, mean scores, standard deviations, and corresponding remarks.

The computed weighted mean of 3.99 with a standard deviation 1.02 indicates a high level of assessment among respondents regarding the clarity of the activity sheet that uses simple and straightforward language, avoiding unnecessary jargon to ensure clarity and accessibility for students. Complex concepts are explained clearly, supported by relevant examples that enhance understanding. Additionally, the Integrative Learning Activity Sheet provide clear guidance on completing activities, ensuring that students can effectively engage with the learning materials.

TABLE 4. *Level of Integrative Learning Activity Sheets in Terms of Characteristics with Regards to Clarity*

STATEMENTS	**MEAN**	**SD**	**REMARKS**
The language used in the ILAS is simple/straightforward.	4.18	1.07	Agree
The ILAS avoids unnecessary jargon	3.84	0.98	Agree
The ILAS provides clear explanations for complex concepts.	4.11	0.90	Agree
The examples indicated in the ILAS are clear and relevant.	3.91	0.97	Agree
The ILAS gives clear guidance on how to complete activities.	3.93	1.17	Agree
Weighted Mean	3.99		
SD	1.02		
Verbal Interpretation	High		

TABLE 5. *Level of Integrative Learning Activity Sheets in Terms of Characteristics with Regards to Suitability*

STATEMENTS	**MEAN**	**SD**	**REMARKS**
The ILAS content is appropriate for the target age group.	4.07	1.03	Agree
The ILAS includes activities suitable for various skill levels.	4.02	1.03	Agree
The ILAS content is engaging for students.	3.89	1.18	Agree
The ILAS is suitable for both individual and group work.	3.95	1.10	Agree
The ILAS provides opportunities for critical thinking.	3.93	1.17	Agree
Weighted Mean	3.97		
SD	1.10		
Verbal Interpretation	High		

This implies that clarity and accessibility in learning materials are crucial for effective student engagement and comprehension. Using plain language, eliminating technical terms, and offering clear explanations with relevant examples ultimately enhancing the overall learning experience and promoting better academic outcomes.

Table 5 presents the level of integration of learning activity sheets Characteristics in terms of suitability. It includes statements, mean scores, standard deviations, and corresponding remarks.

The computed weighted mean of 3.97 with a standard deviation 1.10 indicates a high level of assessment among respondents regarding the suitability of the activity sheet are designed to be age-appropriate, engaging, and adaptable to different skill levels. The included activities cater to both individual and group work, ensuring flexibility in learning. Additionally, the ILAS promote critical thinking providing meaningful opportunities for students to analyze and apply concepts effectively. This means that well-designed activities cater to different learning styles, making them more engaging and inclusive. Clear instructions, intuitive layouts, and interactive elements enhance student comprehension, participation, and overall learning experience.

TABLE 6. *Level of Integrative Learning Activity Sheets in Terms of Characteristics with Regards to Usefulness*

STATEMENTS	**MEAN**	**SD**	**REMARKS**
The ILAS helps students achieve learning objectives.	4.58	0.76	Strongly Agree
The ILAS provides practical applications of concepts.	4.15	0.87	Agree
The ILAS enhances student understanding of the subject.	4.05	0.99	Agree
The ILAS encourages students to develop relevant skills.	4.00	1.04	Agree
The ILAS serves as a valuable tool for both teachers and students.	4.16	0.95	Agree
Weighted Mean	4.19		
SD	0.92		
Verbal Interpretation	High		

Table 6 presents the level of integration of learning activity sheets Characteristics in terms of usefulness. It includes statements, mean scores, standard deviations, and corresponding remarks.

The computed weighted mean of 4.19 with a standard deviation 0.92 indicates a high level of assessment among respondents regarding the usefulness of the activity sheet that support learning by reinforcing objectives, applying concepts practically, and deepening subject understanding. This promote skill development and serve as a valuable resource for both students and teachers, enhancing engagement and effectiveness in education. This concludes the important of the integrative learning activity sheet by providing practical applications of concepts on the learners and encourage skill development as a valuable tool for both teachers and students, making learning more effective and interesting.

Their integration into lessons can enhance proficiency in data interpretation, reinforcing their usefulness as a tool for skill development and deeper learning.

The level of the student engagement in terms of goal setting, task completion and self-directed learning was treated statistically using mean and standard deviation.

Table 7 presents the level of student engagement while using the integrative learning activity sheet in terms of goal setting. It includes statements, mean scores, standard deviations, and corresponding remarks.

TABLE 7. *Level of the Student Engagement in Terms of Goal Setting*

The students…	**MEAN**	**SD**	**REMARKS**
…set specific goals for their academic performance.	4.42	0.81	Agree
…break down their goals into smaller, manageable tasks.	4.02	1.06	Agree
…adjust my goals based on their progress.	4.09	0.95	Agree
…seek feedback on their goals from teachers or peers.	4.04	0.94	Agree
…feel a sense of accomplishment when they achieve the lesson's goals.	4.11	1.08	Agree
Weighted Mean	4.13		
SD	0.97		
Verbal Interpretation	High		

The computed weighted mean of 4.13 with a standard deviation 0.97 indicates a high level of assessment among respondents regarding the level of student engagement while using the integrative learning activity sheet in terms goal setting. This emphasize that students set specific academic goals and break them into smaller, manageable tasks to stay focused and motivated. They also regularly assess their progress, adjusting their goals as needed, while seeking feedback from teachers or peers for improvement. This conclude that students foster a sense of accomplishment, reinforcing their commitment to learning and personal growth.

In the study of Schunk & DiBenedetto (2020) they emphasized that goal setting in the classroom helps students establish clear objectives, develop strategies to achieve them, and remain persistent despite challenges. Teachers can support this by encouraging students to set specific, measurable, and achievable goals while breaking them into manageable steps. Providing feedback that highlights effort and improvement fosters a growth mindset, reinforcing the belief that abilities can be developed through practice. A supportive learning environment that values persistence and continuous learning further enhances student motivation and success.

TABLE 8. *Level of the Student Engagement in Terms of Task Completion*

The students…	**MEAN**	**SD**	**REMARKS**
…follow instructions carefully when completing tasks.	4.35	0.93	Strongly Agree
…stay focused on tasks until they are finished.	4.22	0.81	Strongly Agree
…manage their time effectively to complete tasks.	4.16	1.05	Agree
…take responsibility for completing their tasks.	4.13	0.98	Agree
…feel satisfied when they complete a task.	4.07	1.32	Agree
Weighted Mean	4.19		
SD	1.02		
Verbal Interpretation	High		

Table 8 presents the level of student engagement while using the integrative learning activity sheet in terms of task completion. It includes statements, mean scores, standard deviations, and corresponding remarks.

The computed weighted mean of 4.19 with a standard deviation 1.02 indicates a high level of assessment among respondents regarding the level of student engagement while using the integrative learning activity sheet in terms task completion

This emphasize that students demonstrate responsibility and discipline by carefully following instruction, stay focused and managing their time effectively to complete the task. They take ownership of their work, ensuring tasks are finished with dedication and effort. This sense of accountability fosters self-motivation and productivity. Ultimately, completing tasks successfully brings them a sense of satisfaction and accomplishment.

Table 9 presents the level of student engagement while using the integrative learning activity sheet in terms of self-directed learning. It includes statements, mean scores, standard deviations, and corresponding remarks.

The computed weighted mean of 4.15 with a standard deviation 1.04 indicates a high level of assessment among respondents regarding the level of student engagement while using the integrative learning activity sheet in terms of self-directed learning. This emphasize that students take ownership of their learning by selecting challenging tasks that promote growth. They actively engage in cross-disciplinary activities outlined in the learning sheet, enabling them to integrate knowledge from various subjects. Additionally, students take initiative in seeking extra resources or support when encountering difficulties.

TABLE 9. *Level of the Student Engagement in Terms of Self – Directed Learning*

The students…	**MEAN**	**SD**	**REMARKS**
… take responsibility for their learning process by choosing challenging tasks	4.33	0.86	Strongly Agree
…engage in cross-disciplinary activities outlined in the learning sheet, allowing them to connect knowledge from different subjects	4.24	0.96	Strongly Agree
…reflect on their progress and make necessary adjustments to their learning strategies.	4.16	1.10	Agree
...independently manage their time and resources, using the activity sheet as a guide to organize tasks and complete them at their own pace.	4.02	1.11	Agree
…take initiative in seeking additional resources or support when faced with challenging tasks	3.98	1.18	Agree
Weighted Mean	4.15		
SD	1.04		
Verbal Interpretation	High		

Medical education supports self-directed learning (SDL) through active methods like problem-based and team-based learning, which enhance retention and comprehension (Wolff et al., 2015). These strategies shift from traditional lectures to interactive approaches that promote critical thinking and autonomy, essential for fields like emergency medicine, where independent decision-making is crucial.

The level of the student's a mathematical skill in terms of written test was treated statistically using the frequency and percentage.

The table presents the level of students' mathematical skills based on their written test performance. It includes the score ranges, frequency, percentage, and corresponding remarks.

TABLE 10. *Level of the Student Mathematical Skill in Terms of Written Test*

Scores	Frequency	Percentage	Remarks
41-50	0	0.00%	Outstanding
31-40	5	9.09%	Very Satisfactory
21-30	33	60.00%	Satisfactory
11-20	14	25.45%	Fairly Satisfactory
1-10	3	5.45%	Did Not Meet Expectations
Total	N=55	100%	

Weighted Mean = 23.02
SD=6.25

Table 10 shows that out of the 55 respondents, the majority (33 students or 60.00%) scored between 21-30, which falls under the Satisfactory category. This was followed by 14 students (25.45%) who scored between 11-20, classified as Fairly Satisfactory. Meanwhile, 5 students (9.09%) attained scores between 31-40, which is considered very satisfactory. Only 3 students (5.45%) scored between 1-10, categorized as Did Not Meet Expectations. Notably, no student achieved a score between 41 and 50, meaning none were classified under the outstanding category.

The overall weighted mean score was 23.02, with a standard deviation of 6.25. These results connote that most students demonstrated a *satisfactory* level of mathematical skill in the written test, with performance variations among the respondents.

To test the significant relationship between the integrative learning activity sheets on the students' engagement in terms of goal setting, task completion and self-directed learning was treated statistically using Jamovi 2.3.28 using the Pearson correlation coefficient.

The results of the Pearson correlation analysis indicate a significant positive relationship between the Integrative Learning Activity Sheets and students' engagement in terms of goal setting, task completion, participation, and self-directed learning ($p < .001$).

TABLE 11. *Test of Relationship between the Integrative Learning Activity Sheets on the Students' Engagement*

Integrative Learning Activity Sheets (IV)	Students' Engagement (DV)			
	Goal Setting	Task Completion	Participation	Self-Directed Learning
Objectives: Pearson Correlation	0.75***	0.65***	0.58***	0.70***
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	55	55	55	55
Core Concepts: Pearson Correlation	0.72***	0.53***	0.61***	0.60***
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	55	55	55	55
Evaluation: Pearson Correlation	0.77***	0.59***	0.72***	0.78***
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	55	55	55	55
Clarity: Pearson Correlation	0.75***	0.69***	0.75***	0.70***
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	55	55	55	55
Suitability: Pearson Correlation	0.85***	0.63***	0.64***	0.78***
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	55	55	55	55
Usefulness: Pearson Correlation	0.81***	0.59***	0.59***	0.75***
Significance(2-Tailed)	<.001	<.001	<.001	<.001
N	55	55	55	55

Note: *p<.05, ** p<.01, ***p<.001

For Objectives, the correlations with goal setting (r = 0.75) and self-directed learning (r = 0.70) indicate a *strong positive relationship*, this implies that clear learning objectives enhance students' ability to set goals and manage their own learning. Meanwhile, its correlations with task completion (r = 0.65) and participation (r = 0.58) fall under the *moderate positive correlation* range, implying that well-structured objectives contribute to students' ability to complete tasks and actively engage in learning.

Core Concepts showed a *strong correlation* with goal setting (r = 0.72), meaning that a strong foundation in key concepts helps students set learning goals effectively. Meanwhile, its relationships with task completion (r = 0.53), participation (r = 0.61), and self-directed learning (r = 0.60) indicate *moderate positive correlations*, highlighting that well-established core concepts foster students' engagement and task performance.

For Evaluation, the study found *strong positive correlations* with goal setting (r = 0.77), participation (r = 0.72), and self-directed learning (r = 0.78). These results suggest that assessments play a vital role in motivating students to participate, set goals, and take charge of their own learning. Additionally, a *moderate positive correlation* was observed with task completion (r = 0.59), implying that evaluation strategies influence students' ability to complete assigned tasks.

Clarity of learning materials was found to have *strong correlations* with goal setting (r = 0.75), participation (r = 0.75), and self-directed learning (r = 0.70), signifying that well-structured and clearly presented materials significantly enhance student engagement. It also had a *moderate correlation* with task completion (r = 0.69), indicating that clear instructional materials support students' ability to complete tasks efficiently.

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Among the variables, Suitability had the highest correlation, with a *strong positive relationship* with goal setting (r = 0.85) and self-directed learning (r = 0.78), emphasizing that well-designed activities significantly enhance students' ability to plan and regulate their learning. It also exhibited moderate correlations with task completion (r = 0.63) and participation (r = 0.64), highlighting the role of appropriate learning activities in keeping students engaged.

For Usefulness, strong positive correlations were found with goal setting (r = 0.81) and self-directed learning (r = 0.75), indicating that students are more likely to take initiative and stay engaged when they find learning activities meaningful. Additionally, it had *moderate correlations* with task completion (r = 0.59) and participation (r = 0.59), suggesting that students are more likely to complete and actively engage with tasks when they perceive them as useful.

In summary, there is evidence to shows a *moderate to strong positive correlation* between the Integrative Learning Activity Sheets and students' engagement. This indicates that when learning activities are well-structured, clear, and relevant, students are more likely to exhibit higher levels of goal setting, task completion, self-directed learning, and participation. However, the varying strength of these relationships implies that student engagement is also influenced by other factors, such as instructional strategies, learning environments, and individual student differences.

To test the Significant Relationship between the Integrative Learning Activity Sheets and Students' Mathematical Skills in terms written test was treated statistically using Jamovi 2.3.28 using the Pearson correlation coefficient.

The results of the Pearson correlation analysis indicate that most aspects of the Integrative Learning Activity Sheets have a *very weak to weak positive correlation* with students' mathematical skills as measured by the written test.

TABLE 12. Significant Relationship between the Integrative Learning Activity Sheets and Students' Mathematical Skills

Integrative Learning Activity Sheets (IV)	**Students' Mathematical Skills (DV)**
	Written Test
Objectives:	
Pearson Correlation	0.21
Significance(2-Tailed)	0.134
N	55
Core Concepts:	
Pearson Correlation	0.09
Significance(2-Tailed)	0.501
N	55
Evaluation:	
Pearson Correlation	0.22
Significance(2-Tailed)	0.104
N	55
Clarity:	
Pearson Correlation	0.212
Significance(2-Tailed)	0.121
N	55
Suitability:	
Pearson Correlation	0.29*
Significance(2-Tailed)	0.033
N	55
Usefulness:	
Pearson Correlation	0.27*
Significance(2-Tailed)	0.047
N	55

Note: *p<.05, ** p<.01, ***p<.001

Table 12 shows that among the components, Suitability (r = 0.29, p = 0.033) and Usefulness (r = 0.27, p = 0.047) show *weak* but statistically *significant positive correlations* with students' written test performance. This implies that when learning activities are well-suited to students' needs and perceived as useful, they may contribute slightly to the improvement of their mathematical skills.

On the other hand, Objectives (r = 0.21, p = 0.134), Evaluation (r = 0.22, p = 0.104), Clarity (r = 0.212, p = 0.121), and Core Concepts (r = 0.09, p = 0.501) exhibit *very weak to weak positive correlations*, none of which are statistically significant. These results imply that while the design and clarity of learning activities play a role in student engagement, they may have a limited direct impact on students' mathematical skills as measured by written assessments.

Thus, there is evidence to shows a *very weak to weak positive correlation* between the Integrative Learning Activity Sheets and students' mathematical skills. While *Suitability* and *Usefulness* of the learning materials show slight but significant relationships with student performance, other factors such as instructional methods, problem-solving strategies, and students' prior knowledge may have a greater influence on mathematical skill development.

IV. Conclusion and Recommendations

Based on the findings above, the following conclusions were hereby drawn:

The use of integrative learning activity sheets showed a significant correlation with students' engagement, leading to the rejection of the null hypothesis. This finding emphasize that these activity sheets positively influence students' active participation, motivation, and overall involvement in the learning process.

The use of integrative learning activity sheets has no significant correlation with students' mathematical skills, leading to the acceptance of the null hypothesis. This means that test performance is also influenced by prior knowledge, problem-solving strategies. Moreover, tests often emphasize procedural fluency and problem-solving speed, which integrative activities may not directly reinforce.

In the formulated conclusions from the findings, it was recommended that:

Mathematics teachers may develop integrate learning activity sheets in different topics to use in mathematics instruction to enhance student engagement.

Teacher may continuously develop and use intervention materials that are design to enhance students' classroom engagement and support their overall learning progress.

Further research may explore how integrative activities can be adapted or combined with other approaches to improve students' mathematical skill.

Other research can be conducted by incorporating additional variables to assess the overall effect of the Integrative Learning Activity Sheets on student performance.

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