Realistic Mathematics Education (Rme) Approach towards the Development of Student Life Skills and Performance in Mathematics

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Abstract

The study aimed to determine the significant effect of RME approach towards the development of students' life skills and performance in mathematics. Specifically, it sought to identify the level of utilization of RME approach, level of students' life skills, level of student mathematical performance, significant effect of RME approach on the students' life skills and performance in mathematics.

The study utilized the descriptive method design of research. The focus of the study was 192 Grade 11 HUMSS senior high school students of Biñan Integrated National High School, Division of Biñan City. They were invited to respond to the research question. A researcher designed questionnaire served as the primary tool to gather the necessary data. Statistical analysis included calculating the mean, standard deviation, percentage, and regression analysis.

This research found that the level of utilization of the RME Approach as to contextualized learning, mathematical model, individualization, and interactivity was remarked as very highly utilized by the students. The students' level of performance during formative assessment approaching proficiency. The result showed that in formative tests, students somehow partially developed their skills in answering the formative test. On the other hand, the level of students' performance during summative assessment was marked as proficient. It only means that the RME approach, when integrated into classroom discussion, helps our students increase their performance in mathematics. In addition, there is significant effect in the utilization of RME approach to the student life skill. Furthermore, the null hypothesis was rejected and implies that the utilization of RME approach were found to have effect to students' mathematical performance in terms of formative and summative assessment.

The teacher may use this approach fit to the skills and knowledge of the students. In line with this, they become more engaged in the learning process and think critically and may understand the concept of mathematics, specifically General Mathematics. For the future researcher, it is highly suggested to continue this research by validating the information gathered from large numbers of respondents, enhancing the instructional materials and different areas of mathematics.

Keywords: RME approach; performance in mathematics; life skills

1. Introduction

Presently, mathematics is the most progressive subject among all the other subjects because of its different uses and applications. Not just in schools but in life in general. Mathematics is being applied in almost every aspect of our existence, in terms of cooking, computing, measuring, and even walking. Even in something as simple as staring at a wall, mathematics is there. Every person discovers new ways to solve a given equation with newfound solutions from different parts of the world, sometimes from unexpected places, times, and people.

Despite the widespread influence of mathematics, students still considered it the most challenging subject (Escarez & Ching, 2022). Some of students today still struggle with the details of mathematical concepts, falling into challenges that limit their progress in school and drain their enjoyment of the subject, which results in low performance in mathematics.

Nevertheless, educators always find methods and approaches to develop the life skills and mathematics performance of their students. Using a different approach, the students are more engaged and interested, and one of these approaches is RME. Realistic Mathematics Education (RME) is an approach to teaching mathematics that emphasizes problem-solving in a real-world context. Hans Freudenthal, a Dutch mathematician, created the strategy in the 1960s and 1970s, and it has since gained popularity as a comprehensive approach to mathematics education. RME is an approach that enables educators to introduce real-world problems to the classroom as a starting point for learning. RME trains students to discover concepts. Besides, it also encourages students to be actively engaged in learning activities. Students are required to have the initiative to solve contextual problems given by the teacher in their own way. Furthermore, RME provides students with the flexibility to learn either independently or in collaborative settings. Students engage in various activities, such as actively participating in lessons alongside the teacher and collaborating to solve real-world problems. This approach aims to shift students' attitudes towards group work, connect new knowledge with their existing understanding, and facilitate the construction of knowledge (Laurens et al., 2017).

With the characteristics of the RME approach, which prioritizes problem-solving in real-world contexts and emphasizes the practical application of mathematical concepts, this study is designed to examine if realistic mathematics education, when integrated into a classroom discussion, will result in significant effects on student life skills and performance in mathematics.

1.1 Statement of the Problem

Specifically, this study sought to answer the following questions:

1. What is the level of utilization of RME approach as to:
    - 1.1 Contextualized Learning;
    - 1. 2 Mathematical Model;
    - 1. 3 Individualization; and
    - 1. 4 Interactivity?
2. What is the level of students' life skills in terms of:
    - 2.1 Long term Retention;
    - 2.2 Increase Confidence;
    - 2.3 Critical Thinking; and
    - 2.4 Interpersonal Aspect?
3. What is the level of students' performance in mathematics in terms of:
    - 3.1 Formative: and
    - 3.2 Summative?

4. Is there a significant effect between the utilization of RME Approach on the Students' Life Skills?

5. Is there a significant effect between the utilization of RME Approach on the Students' Performance in Mathematics?

2. Methodology

The study used a descriptive method of research. The descriptive research method involves examining the current state or characteristics of a situation and investigating the reasons behind a specific phenomenon.

It looks at the current situation, or how a person, group, or item performs right now. They are frequently the first step in researching a new topic, event, or condition. Furthermore, descriptive research gives descriptive data that explains the research topic, whereas correlation research investigates the relationship between data rather than their description.

3. Results and Discussion

This chapter dealt with the presentation, analysis and interpretation of the data which also provides citations to support the researcher's claims.

Level of Utilization of Realistic Mathematics Education (RME) Approach

In this study RME approach in teaching mathematics includes contextualized learning, mathematical model. Individualization and interactivity.

The level of utilization of Realistic Mathematics Education Approach was revealed in the following table which shows the statements, mean, standard deviation and remarks and verbal interpretation.

The table 1 show the level of utilization of the RME Approach in terms of Contextualized Learning.

The teacher incorporates mathematics lessons that involve real word examples or problems. The mean (M = 4.65, SD= 0.52) suggests a very highly utilized. Similarly, the teacher encourages me to connect the lesson based of our own experiences. Gaining a slightly lower mean (M = 4.39, SD=0.65), it still indicates a very highly utilized of the students on the utilization of the RME Approach in term of Contextualized Learning.

The level of utilization of the RME Approach in terms of Contextualized Learning gained a weighted mean score of 4.53 and a standard deviation of 0.61 and was verbally interpreted as very highly utilized among the students.

In summation, these results demonstrate that the teacher is effectively incorporating real-world examples and encouraging students to connect math to their own experience.

Table 1 Level of Utilization of RME Approach as to Contextualized Learning

STATEMENT	***MEAN***	***SD***	***REMARKS***
The teacher…			
incorporates mathematics lesson that involve real word examples or problems.	4.65	0.52	Always
uses mathematical problems that are connected to	4.47	0.64	Always

everyday situation.			
encourages me to connect the lesson based of our own experiences.	4.39	0.65	Always
utilizes real-life application in teaching of mathematics assists in establishing a connection between mathematical concepts and real- world situations.	4.60	0.54	Always
demonstrates confidence in their capability to apply mathematical principles in practical, everyday context	4.55	0.67	Always
Weighted Mean		*4.53*	
SD		*0.61*	
Verbal Interpretation		*Very Highly Utilized*	

Table 2 illustrates the level of utilization of the RME Approach as to Mathematical Model.

Table 2 Level of Utilization of RME Approach as to Mathematical Model

STATEMENT *The Teacher…*	***MEAN***	***SD***	***REMARKS***
gives us opportunity to create mathematical model to solve real-life problems as part of our mathematics lessons.	4.48	0.60	Always
demonstrate the concepts of our lesson using drawings and figures.	4.39	0.71	Always
helps us to develop and use mathematical models to represent and analyze real-word situation.	4.56	0.64	Always
encourages us to apply mathematical modeling techniques to solve problems outside of the classroom	4.31	0.72	Always
allows us to use technology or other tools to create and analyze mathematical models.	4.38	0.76	Always
Weighted Mean		*4.43*	
SD		*0.69*	
Verbal Interpretation		*Very Highly Utilized*	

The teacher helps us to develop and use mathematical models to represent and analyze real-word situations. The mean (M = 4.56, SD= 0.64) suggests a very highly utilized. Similarly, the helps us to develop and use mathematical models to represent and analyze real-word situation. Gaining a slightly lower mean (M = 4.31, SD=0.72), it still indicates a very highly utilized of the students on the utilization of the RME Approach in term of Mathematical Model.

The level of utilization of the RME Approach in Mathematical Model gained a weighted mean score of 4.43 and a standard deviation of 0.61 and was verbally interpreted as *very highly utilized* among the students.

In summation, this implies that the teacher effectively integrates mathematical modeling into the lessons, helping students develop skills to analyze and represent real-world situations using mathematics.

Table 3 Level of Utilization of RME Approach as to Individualization

STATEMENT *The teacher…*	***MEAN***	***SD***	***REMARKS***
designs our mathematics lesson for individual learning needs.	4.47	0.66	Always
gives opportunities to explore mathematics concepts in our own pace to take ownership of my learning progress.	4.61	0.58	Always
allows us to choose or apply mathematical strategies that best suit my learning style.	4.49	0.69	Always
encourages us to express our understanding of mathematical concepts in our own way.	4.52	0.65	Always
gives us the responsibilities to take ownership of my learning progress.	4.56	0.61	Always
Weighted Mean		*4.53*	
SD		*0.64*	
Verbal Interpretation		*Very Highly Utilized*	

The teacher gives opportunities to explore mathematics concepts in our own pace to take ownership of my learning progress. The mean (M = 4.61, SD= 0.58) suggests a very highly utilized. Similarly, the teacher designs our mathematics lesson for individual learning needs. Gaining a slightly lower mean (M = 4.47, SD=0.66), it still indicates a very highly utilized of the students on the utilization of the RME Approach in term of Individualization.

The level of utilization of the RME Approach in term of Individualization gained a weighted mean score of 4.53 and a standard deviation of 0.64 and was verbally interpreted as very highly utilized among the students.

The table 4 illustrates the level of utilization of the RME Approach in term of Interactivity.

Table 4 Level of Utilization of RME Approach as to Interactivity

STATEMENT *The teacher…*	***MEAN***	***SD***	***REMARKS***
gives us the opportunity to engage in collaborative activities or discussions with our classmates when learning mathematics.	4.68	0.58	Always
use hands-on or group activities that involved solving real-world problems in my mathematics classes.	4.51	0.61	Always
allows us to actively discuss and share our ideas with our peers during lessons	4.57	0.64	Always
incorporates technology or multimedia tools to enhance interactive learning experiences.	4.29	0.73	Always
uses interactive classroom activities that connect mathematical concepts to real-world scenarios.	4.47	0.64	Always
Weighted Mean		*4.50*	
SD		*0.66*	
Verbal Interpretation		*Very Highly Utilized*	

The level of utilization of the RME Approach in term of Interactivity gained a weighted mean score of 4.50 and a standard deviation of 0.66 and was verbally interpreted as very highly utilized among the students.

The teacher gives us the opportunity to engage in collaborative activities or discussions with our classmates when learning mathematics. The mean (M = 4.68, SD= 0.58) suggests a very highly utilized. Similarly, the teacher incorporates technology or multimedia tools to enhance interactive learning experiences. Gaining a slightly lower mean (M = 4.29, SD=0.73), it still indicates a very highly utilized of the students on the utilization of the RME Approach in term of Interactivity.

In summation, this implies that the teacher provides opportunities for students to engage in collaborative activities and discussions with classmates.
And utilize technology or multimedia tools to enhance their interactive learning experience.

Level of Students' Life Skills

The level of students' life skills in terms of long-term retention, increase confidence, critical thinking and interpersonal aspects and was determined by mean and standard deviation.

The level of students' life skills in terms of long-term retention, increase confidence, critical thinking and interpersonal aspects was revealed in the following table which show the statements, mean, standard deviation and remarks and verbal interpretation.

Table 5 shows the level of students' life skills in term of long-term retention.

Table 5 Level of Students' Life Skills in terms of Long-Term Retention

STATEMENT	***MEAN***	***SD***	***REMARKS***
I effectively manage my time to maintain a balance between my personal life and studies	4.06	0.75	Often
I easily recall information that helps me through problems in life and practical solutions.	3.79	0.75	Often
Through the help of my experiences, I can easily adjust to changes and uncertainty in many of aspects of my life.	4.13	0.73	Often
I can communicate my thoughts and feelings clearly in various social and personal situations	3.90	0.84	Often
I am confident in my ability to make sound decisions and plan.	3.85	0.82	Often
Weighted Mean		*3.94*	
SD		*0.78*	
Verbal Interpretation		*High*	

All the statements of long-term retention have a remark of "often" corresponding to a high. Through the help of their experiences, the students can easily adjust to changes and uncertainty in many of aspects of their life (M= 4.13, SD= 0.73). The least among the statements of long-term retention is that the students easily recall information that helps them through problems in life and practical solutions, with a mean score of (M = 3.85, SD = 0.82).

The level of students' life skills in term of long-term retention gained weighted mean score of 3.94 and standard deviation of 0.78 and was verbally interpreted as high.

In summary, while students demonstrate high proficiency in various life skills associated with long-term retention, continuous emphasis on experiential learning can further enhance their ability to recall information and apply it to solve practical problems, ultimately leading to greater overall life success.

The table 6 show the level of Students' Life Skills in terms of Increase Confidence.

Table 6 Level of Students' Life Skills in terms of Increase Confidence

STATEMENT	***MEAN***	***SD***	***REMARKS***

I am confident in my abilities and secure of who I am	3.98	0.82	Often
I approach challenges with a sense of confidence that I can overcome them	3.94	0.78	Often
I am confident expressing myself and my ideas in various social and academic situations.	3.80	0.84	Often
I am confident to take risks, knowing that I can learn and grow from the experience	4.11	0.86	Often
I am confident in my ability to learn new things and adapt to changing circumstances	4.20	0.89	Often
Weighted Mean		*4.01*	
SD		*0.85*	
Verbal Interpretation		*High*	

It was shown in Table 6 that the highest mean score of students' life skills in terms of increased confidence is 4.20 with a standard deviation of 0.89 interpreted as high.

The students are confident in their ability to learn new things and adapt to changing circumstances. Least among the statements is that the students are confident in expressing themselves and their ideas in various social and academic situations, with a mean score of (M = 3.80, SD = 0.84) interpreted as high.

The level of students' life skills in term of increased confidence gained weighted mean score of 4.01 and standard deviation of 0.85 and was verbally interpreted as high.

This implies that the students are more confident to take risks and explore new things in their life in the sense that can improve their knowledge and skills. In addition, students are confident in their ability to learn new things ang adapt to changing circumstances.

The table 7 show the level of Students' Life Skills in terms of Critical thinking.

Table 7 Level of Students' Life Skills in terms of Critical Thinking

STATEMENT	***MEAN***	***SD***	***REMARKS***
I can effectively analyze information and identify key components in complex situations.	3.78	0.70	Often
I am confident in my ability to solve problems by considering different perspectives and possible solutions.	3.81	0.74	Often
I am open to considering new ideas and perspectives before forming opinions or making decisions	4.19	0.77	Often
I can make well-reasoned decisions by weighing the pros and cons of different options.	3.95	0.80	Often
I regularly reflect on my own thoughts and actions to improve my decision-making and problem-solving skills	4.16	0.83	Often
Weighted Mean		*3.98*	
SD		*0.79*	
Verbal Interpretation		*High*	

Table 7 displayed the weighted mean distribution of level of students' life skills in term of critical thinking (AWM=4.36, SD=0.55) interpreted as high.

All the statements have the remark "often," with a corresponding verbal interpretation of high. The

highest mean score is 4.19 with a standard deviation of 0.77. The students are more open to considering new ideas and perspectives before forming opinions or making decisions. The statement, student can effectively analyze information and identify key components in complex situations got the least mean score of 3.78 and standard deviation of 0.70.

This means that the students are thinking first before forming an opinion or making a decision. On the other hand, the students consider different perspectives and possible solutions to solve problems. The high level of critical thinking skills observed among students is a positive indicator of the effectiveness of current educational practices. By focusing on areas needing improvement and reinforcing existing strengths, educators can continue to develop students' critical thinking abilities, better equipping them for future challenges.

The table 8 presented the level of Students' Life Skills in terms of Interpersonal Aspects.

Table 8 Level of Students' Life Skills in terms of Interpersonal Aspects

STATEMENT	***MEAN***	***SD***	***REMARKS***
I can understand and share my feelings to others.	3.86	0.70	Often
I can effectively convey my thoughts and listen actively in various social and educational settings.	4.01	0.74	Often
I am skilled in resolving conflicts and maintaining positive relationships with others.	3.97	0.77	Often
I enjoy working collaboratively with others and can contribute positively to group efforts.	4.23	0.80	Always
I am comfortable building and maintaining academic relationships that can benefit both parties.	4.37	0.83	Always
Weighted Mean		*4.09*	
SD		*0.84*	
Verbal Interpretation		*High*	

The highest mean got the statement that the students comfortable building and maintaining academic relationships that can benefit both parties. (M = 4.37, SD = 0.83) interpreted as very high. Least among the statements of interpersonal aspects is that the students understand and share their feelings to others., with a mean score of (M = 3.85, SD = 0.82) interpreted as high.

Table 8 Level of Students' Life Skills in terms of Interpersonal Aspects

The level of students' life skills in terms of interpersonal aspects gained weighted mean score of 4.09 and standard deviation of 0.84 and was verbally interpreted as high. This mean that the students are comfortable having good academic relationships that can beneficial to them.

In summary, students are great at working together on schoolwork, but they could be more open about their feelings in class. By doing activities together that focus on emotions, students will be more interested in learning, do better in school, and be stronger when they face difficulties in life.

Level of Students' Performance in Mathematics

In this study, the level of students' performance in mathematics includes formative and summative assessment.

The level of students' performance in mathematics in terms of formative and summative assessment was revealed in the following table which shows the mean, standard deviation, frequency and percentage, and remarks and verbal interpretation.

Table 9 shows the Level of Students' Performance in Mathematics in terms of Formative.

Table 9 Level of Students' Performance in Mathematics in terms of Formative

Points	Raw Score	Frequency	Percentage	Verbal Interpretation
5	41-50	45	23%	Advance
4	31-40	105	55%	Proficient
3	21-30	40	21%	Approaching Proficiency
2	11-20	2	1%	Developing
1	0-10	0	0%	Beginning
		N= 192	100%	
Mean				*25.48*
SD				*6.11*
Verbal Interpretation				*Approaching Proficiency*

Table 9 presents the result of the formative test of the students to determine the level of the students' performance in mathematics. The result showed that the majority of the students got a score of 21–30, which has a percentage of 56 or 107 students, interpreted as approaching proficiency.

There were 2 or 1 percent of the students who got scores ranging from 41 to 50, interpreted as an advance. As gathered from Table 9, the level of students' performance in mathematics in terms of the formative test had a mean score of 25.48, which was interpreted as approaching proficiency. The result showed that in formative tests, students somehow develop their skills in answering the formative test.

The table 10 show the level of students' performance in mathematics in terms of summative test.

Table 10 Level of Students' Performance in Mathematics in terms of Summative test

Points	Raw Score	Frequency	Percentage	Verbal Interpretation
5	41-50	45	23%	Advance
4	31-40	105	55%	Proficient
3	21-30	40	21%	Approaching Proficiency
2	11-20	2	1%	Developing
1	0-10	0	0%	Beginning
		N=192	100%	
Mean				**35.25**
SD				*6.45*
Verbal Interpretation				*Proficiency*

Table 10 presents the result of the summative test of the students to determine the level of the students' performance in mathematics. The result showed that the majority of the students got a score of 21–30, which has a percentage of 21 or 40 students, interpreted as approaching proficiency. There were 45 or 23 percent of the students who got scores ranging from 41 to 50, interpreted as an advance.

As gathered from table 10, then Level of Students' Performance in Mathematics in terms of summative test had mean score of 35.25 were interpreted as Proficiency.

In summation. The RME approach might have been effective in helping students progress between the formative and summative test.

Significant Effect of Utilization of RME Approach on Students' Life Skills

The significant effect of utilization of RME approach on students' life skills, data were treated statistically using Minitab 14 using Regression Analysis.

Table 11 shows the results of the statistical analysis of the significant effect of Utilization of RME Approach on Students' Life Skills.

Table 11 Significant Effect of Utilization of RME Approach on Students' Life Skills

Realistic Mathematics Education Approach (RME)	Students' Life Skills			
	Long-term Retention	**Increase Confidence**	**Critical Thinking**	**Interpersonal Aspects**
Contextualized Leang	3.26* .001	3.67* .000	5.42* .000	1.47 .144
Mathematical Model	2.72* .007	2.18* .030	5.30* .000	1.97 .051
Individualization	4.42* .000	4.49* .000	6.09* .000	2.21* .028
Interactivity	2.95* .004	2.32* .021	4.63* .000	2.35* .020

Note: * p < .05

The characteristics of RME Approach, such as contextualized learning, mathematical model, individualization, and interactivity, all show a statistically when integrate to classroom discussion significant effect on students' life skill in terms of long-term retention, increase confidence, critical thinking. The findings highlight the effectiveness of RME in fostering the development of life skills that go beyond a basic understanding of mathematics.

However, among the indicators, interpersonal aspect has no significant in the utilization of RME approach in terms of contextualized learning and mathematical model (p= 0.144, 0.05) were greater than the alpha 0.05.

To conclude, based on the result, the null hypothesis is partially rejected. Thus, this calls for the acceptance of the alternative, which indicates that there was a significant effect of the utilization of the RME approach on students' life skills.

Significant Effect of Utilization of RME Approach on Students' Performance in Mathematics

The significant effect of utilization of RME approach on students' performance in Mathematics, data were treated statistically using Minitab 14 using Regression Analysis.

The table 12 present the significance effect of utilization of RME Approach on students' performance in mathematics**.**

Table 12 Significant Effect of Utilization of RME Approach on Students' Performance in Mathematics

Realistic Mathematics Education Approach (RME)	Students' Performance	
	Formative	**Summative**
Contextualized Learning	1.43 .155	2.61* .010

	1.77	1.23
Mathematical Model	0.079	0.222
	3.26*	1.91
Individualization	.001	.058
	3.73*	2.90*
Interactivity	.000	.004

*Note: * $p < .05$.*

The result above showed that two of the characteristics of RME approach contextualized learning and interactivity have a significant effect on the summative test of the students. This implies that integrating real-world contexts, fostering active participation and collaborative activities, influences their mathematics performance. The teachers can create a more conducive learning environment that facilitates deeper understanding and application of mathematical concepts.

However, in terms of mathematical model and individuation has no significant effect on summative test of the students (p=0222, 0.058).

To conclude, based on the result, the null hypothesis is partially rejected. Thus, this calls for the acceptance of the alternative, which indicates that there was a significant effect of the utilization of the RME approach to students' mathematical performance.

4. Conclusion and Recommendations

Based on the different finding of the study, the following are hereby concluded based of the statement of the problem:

1. The Utilization of RME approach in terms contextualized learning, mathematical model, individualization, and interactivity of and Students life skills in terms of long-term retention, increase confidence, critical thinking showed a significant effect. Therefore, it was concluded that the null hypothesis was rejected. This indicates that RME approach can be used to develop students' life skills. Since the RME Approach has such effect on students' life skills, it makes sense to use it more in schools. This could involve making it a bigger part of the curriculum, training teachers on how to use it effectively, focusing on developing the whole student (not just academics), and even getting the community involved. By doing all this, educators can better prepare students for the real world.

2. The Utilization of RME approach in terms contextualized learning, mathematical model, individualization, and interactivity of and performance in mathematics in terms of formative and summative showed a significant effect. Therefore, it was concluded that the null hypothesis was rejected. This indicates that RME approach can be used to develop mathematical performance. Since the RME Approach has effect on the students' performance in mathematics, it has the potential to make them even better learners overall and strong in math. Teachers who use RME and other methods that follow the same ideas can help students succeed not just in math, but in other subjects too.

From the said conclusion, the following recommendations were presented:

1. To teachers, RME approach can integrate to classroom discussions can develop critical thinking, confidence, and retention of knowledge. By incorporating real word context, interactive and learning experiences, teachers can create a more engaging effective learning environment that promotes both academic achievement and the development of life skills.

2. Since this study found that there is effect to the utilization of RME approach to students' life skills. The teacher may use this approach fit to the skills and knowledge of the students. In line with this, they become more engaged in the learning process and think critically and may understand the concept of mathematics, specifically General Mathematics.

3. To the curriculum developers, they can collaborate with educators to design mathematics curricula that align with the principles of the RME approach. By integrating real-world applications and problem-solving tasks into the curriculum, developers can ensure that students are equipped with the skills and knowledge necessary for success in both academic and practical contexts.

Reference:

Escarez Jr, Y. F. D., & Ching, D. A. (2022). Math anxiety and mathematical representations of Grade 7 students. International Journal of Educational Management and Development Studies, 3(1), 166-181.

Laurens, T., Batlolona, F. A., Batlolona, J. R., & Leasa, M. (2017). How does realistic mathematics education (RME) improve students' mathematics cognitive achievement? Eurasia Journal of Mathematics, Science and Technology Education, 14(2), 569-578. Available at: https://doi.org/10.12973/ejmste/76959.