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Learners Engagement in Learning Process in Mathematics 5: Basis for Crafting an Intervention

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RESEARCH ARTICLE

Abstract
The main objective of this study was to determine the relationship between learners' level of engagement and teachers' frequency of use of the activities and strategies, and an intervention was crafted based on the findings. The study used a mixed method and employed a descriptive-correlational design, while a survey questionnaire, a researcher-based survey questionnaire, and interview guide questions were adopted as research tools. It involved respondents composed of thirty-six (36) Grade 5 teachers from all elementary schools in the Jose Panganiban East and West District. The study's findings revealed that emotional engagement was the highest level among learners in Mathematics 5, with a weighted mean of 3.11. Further, the strategies and activities that were always used were brainstorming, with a weighted mean of 3.48, and inquiry-based learning, with a weighted mean of 3.38. There was no significant relationship between the level of engagement in behavioral and emotional with the teachers' strategies and activities; however, cognitive engagement has significant correlations with inquiry-based learning ($r = -34^*$, $p < 0.05$). The most challenging experiences for teachers were non-mastery of the four fundamental operations and difficulty solving problems. To enhance learners' engagement in Mathematics 5, the researcher developed a resource package comprising modified, detailed lesson plans, interactive activities, a pamphlet with educational videos, and outdoor math games. Based on the findings, it was concluded that teachers may do a lot to encourage learners to engage in behavioral, cognitive, and emotional engagement.

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1 INTRODUCTION

Every student had experienced struggles with learning. For quite some time, engagement with learning has been a challenge for teachers and students, particularly for years when there has never been a face-to-face teaching-learning process. Engaging disengaged learners can take an enormous effort. So, the key is prevention. However, learning engagement does not rest only among learners; teachers must know how to increase engagement and avoid losing learners' interest. According to Wong et al. (2022), learning engagement is the collection of active learning, participation, and involvement in educational activities, emotional support, and communication with peers and educators. It is the passion learners demonstrate when learning or being taught, which extends to their motivation to learn and progress in their education. Students' level of

interest, attention, and curiosity are indicators of students' learning engagement that every teacher should record. Knowing what keeps students learning or doing in class will help teachers create meaningful activities that promote student engagement and motivation (Farizka, Suharjito, & Santihastuti, 2020).

Moreover, Buelow, Barry, and Rich (2018) discussed that learning engagement consists of three types: behavioral, emotional, and cognitive. Students' active participation in learning, such as accessing material and completing assignments, is an example of behavioral engagement. Students' affective attitudes towards lecturers, classmates, and the class are defined as emotional engagement. Cognitive engagement refers to how students relate new knowledge to prior knowledge and how students perceive the need for the material. There are instances when learners do not interact with teachers and do not participate in activities, no matter how the teacher motivates and encourages them. There are some situations also when the family does not support the child, especially with the lesson activities. One of the learning areas where learning engagement is difficult to attain is Mathematics (Morita-Mullaney, Renn, & CHIu, 2021). Learning Mathematics requires hard work and cannot be learned quickly. Nonetheless, Mahanta (2020) stated that despite its difficulty in comprehension, it is also one of the most important subjects to master. Moreover, developing students' problem-solving skills, approaches, and interests is essential for effective mathematics teaching and learning (Julius, Abdullah, & Suhairom, 2018). Furthermore, Almerino, Etcuban, De Jose, and Almerino (2019) mentioned that Mathematics as an academic discipline is essential in every person's daily routine and daily living, aside from its impact on studying other subjects.

Meanwhile, Gaylo and Dales (2017) discussed that teachers must employ various teaching strategies and approaches to improve students' learning outcomes and address learners' low achievement in mathematics. Teachers' efforts to increase learners' achievement may be rendered ineffective if they are disengaged; thus, there is a need to investigate how instructional strategies affect learners' engagement in the classroom. The *Filipino learners need to catch up on science, mathematics* (n.d.) noted that Filipino students in 79 different nations were ranked second to last in mathematics and science based on the 2018 Programme for International Student Assessment (PISA). In the 2019 Trends in International Mathematics and Science Study, which included 58 nations, the Philippines ranked last in mathematics and science. According to the 2019 TIMSS by the International Association for the Evaluation of Educational Achievement (IEA), the Philippines received a Math score of 297. The score is lower than the nation's performance in Math in 2003, which was 358. In the Southeast Asia Primary Learning Metrics 2019, only 17% of Filipino students in Grade 5 achieved the required math proficiency.

The study's results aimed to benefit the learners, teachers, parents, school leaders, the Department of Education, the researcher herself, and future researchers involved in sustaining the learning engagement, especially when the face-to-face teaching-learning process is back. It was designed to examine pupils' learning engagement to craft an intervention to address the challenges of teachers' and learners' engagement in Mathematics 5. For the abovementioned reason, the researcher would want to conduct this study to determine the learners' level of engagement in Mathematics 5 to craft an intervention that would address the teachers' challenges regarding learners' engagement in Mathematics. Learners' level of engagement is in line with behavioral, cognitive, and emotional engagement. This study also identified the strategies and activities used by the teachers, how frequently the teachers used these strategies and activities, the significant relationship between the learners' level of engagement and teachers' frequency of using the activities and strategies, and the challenges experienced by teachers in regard to learners' engagement in the teaching process. From these, an intervention was proposed that addresses teachers' challenges to learners' engagement in Mathematics 5.

2 METHODOLOGY

2.1 Research Method

This study utilized mixed methods and descriptive-correlational design (Stangor, 2011). The quantitative method was used to measure the learners' level of engagement along with behavioral,

cognitive, and emotional engagement, as well as the strategies and activities used by the teachers in Mathematics 5 to engage learners in the learning process. On the other hand, the qualitative method was used to address the challenges experienced by teachers in terms of learners' engagement in the teaching process. A descriptive approach was used as well (Nassaji, 2015).

2.2 Respondents

It involved respondents composed of thirty-six (36) Grade 5 teachers from all elementary schools of Jose Panganiban East and West District, 16 teachers from Jose Panganiban East District, and 20 teachers from Jose Panganiban West District.

2.3 Research Instruments

In this study, research instruments like the adopted survey questionnaire, researcher-made survey questionnaire, and interview guide questions were used to identify the problems of the study. The researcher used an adopted survey questionnaire based on Delfino (2019) study to determine learners' level of engagement, behavioral engagement, cognitive engagement, and emotional engagement. A researcher-made survey questionnaire was used to know the strategies and activities used by the teachers and the frequency of utilization of strategies and activities to ensure participation among learners. The researcher-made survey questionnaire was submitted for validation of the language and content. The researcher considered comments and suggestions for the final draft of the checklist. The Pearson Product Moment Correlation Coefficient was used to determine the significant relationship between the learners' level of engagement and teachers' activities and strategies. Moreover, interview guide questions were used to determine the challenges teachers experienced concerning learners' engagement in the learning process in Mathematics 5. The interview guide questions were submitted for validation of language and content. Similarly, the researcher at Dalnac Elementary School validated the research tools for two (2) grade 5 teachers.

2.4 Data Gathered Procedures

The researcher used an adopted survey questionnaire, a research-made survey questionnaire, and an interview guide to gather the appropriate data for the study. Meanwhile, the researcher asked permission from the School Superintendent of SDO Camarines Norte and from the school Principals of Jose Panganiban East and West District to facilitate data collection. The adopted and researcher-made survey questionnaires were distributed to the identified Grade 5 Mathematics teachers of the elementary schools in Jose Panganiban East and West districts. Likewise, an interview was conducted with identified Mathematics 5 teachers per school at their most convenient time to avoid disruption of classes. Before the interview, the teachers were informed that their answers would be recorded through minutes and audio, so the researcher could return to their answers if needed. In collecting the data, the researcher asked for help from the school heads to retrieve it systematically and systematically. After collecting the data, these were analyzed and interpreted.

2.5 Ethical Consideration

Part of the study was conducted by observing ethical considerations. There were followed where respondents and participants were informed of the study's purpose, benefits, and risks before they agreed or declined to participate. The researcher also assured the respondents of confidentiality. Only authentic, first-hand, and non-biased information was included in the research.

3 RESULTS AND DISCUSSIONS

3.1 Level of Engagement of Learners in line with Behavioral, Cognitive, and Emotional Engagement

Table 1 presents the level of engagement of Grade 5 learners and behavioral engagement. The data show that among its indicators, participating in small group discussions was rated very high, with a mean of 3.39, while the lowest rated was studying regularly, with a mean of 2.39. It can be interpreted that the level of behavioral engagement of Grade 5 learners was high with the given indicators, as manifested in the overall mean of 2.72. This is supported by the study of Casinillo and Guarte (2020), which demonstrated that students are more capable of engaging in mathematics group activities.

Table 1. Level of Behavioral Engagement

Indicators	Weighted Mean	Qualitative Interpretation
1. Coming to class every day.	3.17	High
2. Raising hands in class.	2.42	Low
3. Participating in small group discussions.	3.39	Very High
4. Taking good notes in class.	2.56	High
5. Studying regularly	2.39	Low
6. Doing well on a test.	2.56	High
7. Getting a good grade	2.53	High
Overall Mean	**2.72**	**High**

Legend: 3.25-4.00 Very High, 2.50-3.24 High, 1.75-2.49 Low, 1.00-1.74 Very Low

Table 2 shows that the learners' cognitive engagement level was high, as manifested by its mean value of 2.86. Asking questions about the lesson presented was rated very high, with a mean of 3.61. The indicator with a low rating continues to do tasks despite experiencing difficulty, with a weighted mean of 2.25.

Table 2. Level of Cognitive Engagement

Indicators	Weighted Mean	Qualitative Interpretation
1. Continuing to do tasks despite experiencing difficulty.	2.25	Low
2. Using examples to better master the concept.	3.22	High
3. Reviewing their notes to make sure they understood the topic.	3.17	High
4. Asking questions about the lesson presented.	3.61	Very High
5. Studying harder to meet my expectations.	2.56	High
6. Practicing solving mathematical problems on their own.	2.58	High
7. Working independently in and out of the classroom.	2.64	High
Overall Mean	**2.86**	**High**

Legend: 3.25-4.00 Very High, 2.50-3.24 High, 1.75-2.49 Low, 1.00-1.74 Very Low

Table 3 presents the level of engagement of Grade 5 learners and emotional engagement. The level of engagement was high, as manifested by its weighted mean value of 3.11. Learners having

fun in class were rated very high, with a weighted mean of 3.39. The indicator with a low rating was confidence that they could learn and do well in class, with a weighted mean of 2.50. In the study of Imad (n.d.), it was stated that the higher the student's level of interest, enjoyment, positive attitude, curiosity, and sense of belonging, the higher the emotional engagement. One's emotional state can influence levels of engagement.

Table 3. Level of Emotional Engagement

Indicators	Weighted Mean	Qualitative Interpretation
1. Having fun in class.	3.39	Very High
2. Being eager to learn the materials.	3.36	Very High
3. Being confident that they can learn and do well in class.	2.50	High
4. Answering questions with interest.	2.58	High
5. Reacting to the lesson with expressions of happiness, surprise, concern, etc.	3.36	Very High
6. Establishing eye contact during class discussions.	3.22	High
7. Speaking to their classmates kindly and with respect	3.33	Very High
Overall Mean	**3.11**	**High**

Legend: 3.25-4.00 Very High, 2.50-3.24 High, 1.75-2.49 Low, 1.00-1.74 Very Low

Table 4 shows that learners' overall level of engagement was high, with an average weighted mean of 2.90. Emotional engagement received the highest weighted mean of 3.11 among the three types. It was followed by cognitive engagement with a weighted mean of 2.86 and behavioral engagement with a weighted mean of 2.72. It can be concluded that teachers can do a lot to make learners highly engaged in behavioral, cognitive, and emotional engagement. In summary, teachers, and schools can implement interventions, programs, and innovations to create and uplift learners' interests and motivation, eventually leading to high learning engagement.

Table 4. Summary of Level of Engagement

Type of Student Engagement	Weighted Mean	Qualitative Interpretation
Behavioral Engagement	2.72	High
Cognitive Engagement	2.86	High
Emotional Engagement	3.11	High
Overall Mean	**2.90**	**High**

Legend: 3.25-4.00 Very High, 2.50-3.24 High, 1.75-2.49 Low, 1.00-1.74 Very Low

3.2 Strategies and Activities Employed by Teachers to Ensure Participation among Learners

Table 5 shows the strategies and activities employed by teachers to ensure the participation of learners in mathematics. The strategies used were participatory learning, cooperative learning, inquiry-based learning, integrating technology in the classroom, and brainstorming. Under participatory learning, short quizzes and board work activities were used 100% by the mathematics teachers. The last activity used in participatory learning was using manipulatives, with a percentage of 41.67%. As to cooperative learning, group work and demonstration were used 100% by mathematics teachers. The lowest activity used in cooperative learning was outdoor activity, with a percentage of 30.56%. In inquiry-based learning, asking questions about the lesson and making real-life connections in problem-solving were used 100% by the teachers. The lowest

percentage of activity used in inquiry-based learning was encouraging to think critically about the information, with a percentage of 72.22%. Under the integration of technology in the classroom, the use of educational videos and the use of television received a high percentage of 88.89%. Meanwhile, the lowest activity used in integrating technology in the classroom was using an audio system or speaker, with a percentage of 72.22%. Under brainstorming, encouraging the freedom to express ideas in learning and providing a generalization of the topic received a high percentage of 100%. The lowest percentage of activity used was the development of higher-order thinking skills (HOTS), with a percentage of 77.78%.

Table 5. Strategies and Activities Used by the Teachers

Strategies and Activities	Frequency	%
1. PARTICIPATORY LEARNING		
a. Utilizes drills (ex., mental computation, games)	30	83.33
b. Gives Short Quiz	36	100.00
c. Employs homework/Assignment	22	61.11
d. Make use of board work activities	36	100.00
e. Uses manipulatives (ex. blocks, abacus)	15	41.67
2. COOPERATIVE LEARNING		
a. Encourages group work	36	100.00
b. Makes use of demonstration (ex. shows the steps involved in the calculation)	36	100.00
c. Employs think-pair-share	21	58.33
d. Does outdoor Activity	11	30.56
e. Gives differentiated activities	27	75.00
3. INQUIRY-BASED LEARNING		
a. Ask questions about the lesson.	36	100.00
b. Makes real-life connections in problem-solving.	36	100.00
c. allow exploring a problem Independently.	29	80.56
d. Encourages to think critically about the Information.	26	72.22
e. Provides an opportunity to discover a new topic.	27	75.00
4. INTEGRATE TECHNOLOGY IN THE CLASSROOM		
a. Uses PowerPoint presentation.	31	86.11
b. Uses educational videos.	32	88.89
c. Use television	32	88.89
d. Employ interactive games in PowerPoint	29	80.56
e. Use an audio system or speaker.	26	72.22
5. BRAINSTORMING		
a. Encourages the freedom to express ideas.	36	100.00
b. Provides a generalization of the topic.	36	100.00
c. Activates schema (prior knowledge).	32	88.89
d. Develop higher-order thinking skills (HOTS)	28	77.78
e. Assist in identifying misconceptions about the Topic.	36	100.00

3.3 Frequency of Strategies and Activities Used by the Teachers in Mathematics

Table 6 shows the frequency of activities and strategies in participatory learning, cooperative learning, inquiry-based learning, integrating technology in the classroom, and brainstorming in teaching Mathematics 5. In participatory learning, the one with the highest weighted mean

of 3.64 and was always used was giving a short quiz. Meanwhile, using manipulatives has the lowest weighted mean of 2.08 and was sometimes used. The overall mean was 2.95 with a verbal interpretation of often. In cooperative learning, the one with the highest weighted mean of 3.67 was using demonstration. Meanwhile, doing outdoor activity has the lowest weighted mean of 1.72. Cooperative learning was often used to make learning engaging, with an overall mean of 2.94. As shown in the Table, the one with the highest weighted mean of 3.72 in inquiry-based learning was asking questions about the lesson. While providing the opportunity to discover the new topic, has the lowest weighted mean of 3.17. Inquiry-based learning was always used to engage learning, with an overall mean of 3.38.

Meanwhile, the one with the highest mean of 3.19 in integrating technology in the classroom was using PowerPoint presentations, interpreted as an often-used activity. Employing interactive games in PowerPoint have the lowest weighted mean of 2.28. It can be noted that the teachers often used technology integration in the classroom, with an overall mean of 2.56. In brainstorming, the one with the highest weighted mean of 3.75 encouraged the freedom to express ideas. Meanwhile, developing higher-order thinking skills has the lowest weighted mean of 3.19. The overall mean was 3.48, with a verbal interpretation of always.

Table 6. Teachers Activities and Strategies

	WM	QI
1. PARTICIPATORY LEARNING		
a. Utilizes drills (ex., mental computation, games)	3.08	Often
b. Gives Short Quiz	3.64	Always
c. Employs homework/Assignment	2.47	Sometimes
d. Make use of board work activities	3.47	Always
e. Uses manipulatives (ex. blocks, abacus)	2.08	Sometimes
Overall Mean	**2.95**	**Often**
2. COOPERATIVE LEARNING		
a. Encourages group work	3.64	Always
b. Makes use of demonstration (ex. shows the steps involved in the calculation)	3.67	Always
c. Employs think-pair-share	2.47	Sometimes
d. Does outdoor Activity	1.72	Never
e. Gives differentiated activities	3.22	Often
Overall Mean	**2.94**	**Often**
3. INQUIRY-BASED LEARNING		
a. Ask questions about the lesson.	3.72	Always
b. Makes real-life connections in problem-solving	3.58	Always
c. allow exploring a problem Independently.	3.22	Often
d. Encourages to think critically about the Information.	3.19	Often
e. Provides an opportunity to discover a new topic.	3.17	Often
Overall Mean	**3.38**	**Always**
4. INTEGRATE TECHNOLOGY IN THE CLASSROOM		
a. Uses PowerPoint presentation.	3.19	Often
b. Uses educational videos.	2.47	Sometimes
c. Use television	2.44	Sometimes
d. Employ interactive games in PowerPoint	2.28	Sometimes
e. Use an audio system or speaker.	2.42	Sometimes
Overall Mean	**2.56**	**Often**

5. BRAINSTORMING		
a. Encourages the freedom to express ideas.	3.75	Always
b. Provides a generalization of the topic.	3.64	Always
c. Activates schema (prior knowledge).	3.22	Often
d. Develop higher-order thinking skills (HOTS)	3.19	Often
e. Assist in identifying misconceptions about the Topic.	3.61	Always
Overall Mean	**3.48**	**Always**

Legend: 3.25-4.00 Always 2.50-3.24 Often 1.75-2.49 Sometimes 1.00-1.74 Never
*WM = Weighted Mean; QI = Qualitative Interpretation

Table 7 summarizes the teachers' frequency of using strategies and activities in Mathematics 5. The brainstorming strategy has the highest weighted mean of 3.48, while integrating technology in the classroom has the lowest weighted mean of 2.56. Overall, the strategies and activities have a 3.06 weighted mean with the qualitative interpretation of often used. This study raises the possibility that learning can be more engaging when varied strategies are used, particularly those that make learners interact, collaborate, participate, and inquire. This is further supported by the idea of Nashaat Abdelaziz, Mohamad Zaidin, and Basil Rasmi (2020) that there is a statistically significant correlation between the use of mathematics teachers for the various teaching strategies and the level of metacognitive skills and mathematics proficiency among eighth-grade students based on the results of the study, which revealed that eight-grade math teachers follow the various teaching strategies more than they depend on the traditional methods of teaching.

Table 7. Summary of the Frequency of Using Teacher's Activities and Strategies

Activities and Strategies	Weighted Mean	Qualitative Interpretation
1. Participatory Learning	2.95	Often
2. Cooperative Learning	2.94	Often
3. Inquiry-Based Learning	3.38	Always
4. Integrate Technology in the classroom	2.56	Often
5. Brainstorming	3.48	Always
Overall Mean	**3.06**	**Often**

Legend: 3.25-4.00 Always 2.50-3.24 Often 1.75-2.49 Sometimes 1.00-1.74 Never

3.4 Relationship between Learners' Level of Engagement and Teachers' Frequency Use of Activities and Strategies

Table 8 presents the relationship between behavioral, cognitive, and emotional engagement levels and teachers' strategies and activities. The data presents a negative significant relationship between the level of engagement in cognitive and inquiry-based learning as teachers' strategies/activities. At the same time, the rest of the strategies and activities indicated no significant relationship. The findings are supported by the study of Khalaf and Mohammed Zin (2018), who pointed out that inquiry-based learning improves students' understanding of fundamental ideas and methods. At the same time, cognitive engagement has something to do with the activities in inquiry-based learning. It is worth noting that learners become engaged when they are exposed to making real-life connections in problem-solving, asking questions about the lesson, exploring a problem independently, encouraging them to think critically about the information, and providing an opportunity to discover a new topic. Teachers must continuously utilize inquiry-based learning, allowing learners to be independent and motivated.

Table 8. Correlations Between Level of Engagement and Teachers' Strategies/Activities

Variables	Behavioral	Cognitive	Emotional
	r- value		
Participatory Learning	-0.07	-0.10	-0.14
Cooperative Learning	0.09	-0.08	-0.05
Inquiry-Based Learning	-0.18	-0.34*	-0.03
Integrate technology in the Classroom	0.09	0.03	-0.15
Brainstorming	0.12	-0.23	-0.01

Legend: * Significant ($p<0.05$)

3.5 Challenges Encountered by Teachers with Learners' Engagement in Mathematics

Table 9 provides teachers' challenges with learners' engagement in Mathematics 5. They are categorized into mastery of competencies, learning engagement, and learner's interest. The most challenging under the mastery of competencies is non-mastery of the four fundamental operations, while the least challenging is the broad competencies per subject matter. Under learning engagement, the challenges centered on learners who are not listening. On the other hand, the challenges experienced by teachers regarding learners' interest focused on boredom with math, difficulty solving problems, group activities, and difficulty concentrating. It can be interpreted that the challenges concentrated on learners, competencies/skills, and activities/strategies. Learners with appropriate activities become motivated, and mastering skills and competencies become easy and engaging.

Table 9. Challenges Encountered by Teachers with Learners Engagement in Mathematics

Category	Responses
Mastery of Competencies	· Non mastery of the four fundamental operations · Non mastery of concepts in one teaching session · Performing a series of more than two operations (PMDAS) · Uses divisibility rules to find the common factors of numbers. · Broad competencies
Learning Engagement	· Learners who are not listening. · learners have a fear of numbers · Lack of motivation for the lesson.
Learner's Interest	· not listening or are bored during the Math subject. · learners easily give up on solving a problem · group activities · don't pay attention in class because some are hungry.

3.6 Resource Package as Intervention to Address the Challenges of Teachers and Learners' Engagement in Mathematics 5

Figure 1 shows the layout and overview of the resource package. The purpose of this Resource Package is to serve as a guidebook for teachers in engaging learners in mathematics. This comprises five detailed lesson plans in 4 A's based on the least learned competencies, instructional materials, pamphlets, and outdoor math games. This Resource Package was created and compiled to support teachers. The materials are useful if the teachers reflect on their teaching strategies and activities aligned with the learning competencies, share ideas, and mentor beginning teachers.

Hence, they become aware of the importance of teaching strategies and activities in the learner's engagement. They want to develop the current work by providing suggestions and recommendations other than this package's present teaching strategies and activities.

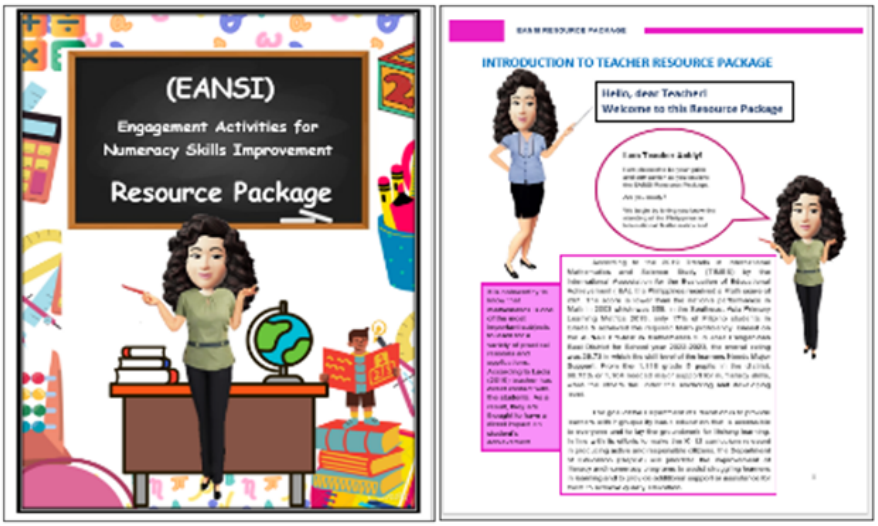

Figure 1. Layout and overview of the resource packagee

4 CONCLUSIONS

The study's findings indicated that teachers could do a lot to engage learners in behavioral, cognitive, and emotional engagement, like doing interventions, programs, and innovations. Learning can be more engaging when varied strategies are used, particularly those that make learners interact, collaborate, participate, and inquire. Overall, only inquiry-based learning had a negative significant relationship with cognitive engagement. At the same time, the rest of the strategies and activities indicated a weak positive relationship, which accepted the null hypothesis. Commonly, the teacher's challenges were concentrated on learners' nature and abilities, competencies/skills that must be mastered, and activities/strategies that must be provided. Learners with appropriate activities become motivated, and mastering skills and competencies becomes easy and engaging.

5 RECOMMENDATIONS

There's no better way to wholesome learning than by engaging learners with the lesson and the teacher. Hence, the following are recommended: 1)There must be connections among behavioral engagement, cognitive engagement, and emotional engagement so that learners would become highly engaged with the learning process; 2) Outdoor activities must be encouraged among teachers to use to break monotony of learning inside the classroom; 3) Integration of technology in the classroom must be sustained and enhanced; 4) Cooperative learning as a strategy is beneficial to both teachers and learners, therefore, it must be an integral part of teaching and learning particularly in Mathematics; 5) Inquiry-based learning must be utilized continuously by teachers particularly that it makes real-life connections in problem-solving; 6) Teachers must take into consideration the kind of learners in this modern era who are more visual and digital and so schools must provide training to teachers on using audio-video teaching tools and ICT resources for teachers' and learners' consumption; 7) To make learning engaging, challenges that teachers experience with learners' interests, engagement, and mastery of competencies must be addressed all at once; 8)Teachers are encouraged to create and add more engaging and creative activities to this package for learners to enjoy well the learning of Mathematics.

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