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VIEW Program: Developing Positive Attitude Towards Mathematics to Enhance Numeracy Level

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ABSTRACT

This action research examined the effectiveness of the VIEW Program in developing a positive attitude towards Mathematics and enhancing the numeracy skills of Grade 7 students at Dasmariñas East Integrated High School Year, 2020-2021. The VIEW Program-comprising Video presentations, Interactive games, Enhancement activities, and Window cards-was designed to provide engaging, mastery-oriented learning experiences for non-numerate students. A one-group pre-test post-test design was employed to measure changes in students' attitudes and numeracy levels, while Pearson's Chi-square test assessed the relationship between these variables. Findings revealed a significant improvement in students' attitudes, with increased confidence, enjoyment, and perception of Mathematics as relevant to daily life. Numeracy levels also showed significant gains across whole numbers, decimals, and fractions. Moreover, a strong positive correlation was observed between attitude and numeracy, highlighting that fostering positive attitudes directly supports skill development. The study underscores the value of integrating non-cognitive skill development into Mathematics instruction to enhance learning outcomes.

KEYWORDS: *VIEW Program, Mathematics Attitude, Numeracy Skills, Non-cognitive Skills, Action Research.*

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INTRODUCTION

Being numerate means possessing the confidence and skills to use numbers and mathematical approaches in all aspects of life-at work, in practical everyday activities at home, and as informed citizens understanding the world around them (Oxford Dictionaries, 2020.). Numeracy refers to the ability to reason with numbers and other mathematical concepts and to apply them in a variety of contexts to solve problems. Good numeracy is essential, as decisions in life are often based on numerical information; to make informed choices, individuals must be numerate (National Numeracy, 2019.).

The digital age presents an unprecedented abundance of numerical data, placing a premium on numeracy skills. While computers can perform complex calculations, strong numeracy is necessary to use digital tools effectively. Currently, around 90% of new graduate jobs require high levels of digital skills, which are built on strong numerical understanding (Race Online, 2012). Poor numeracy can negatively affect confidence and self-esteem. According to Schleicher (2010), students entering secondary school with very low numeracy skills face higher exclusion rates, truancy, and increased likelihood of unemployment compared to peers with strong numeracy.

At Dasmariñas East Integrated High School (DEIHS), 54 out of 1,089 Grade 7 students (4.96%) were identified as non-numerate based on the 2017 Numeracy Test conducted by the Mathematics Department. Poor numeracy among these students poses a significant risk of low performance in Mathematics 7, with potential repercussions in the National Achievement Test. Despite interventions, such as remedial programs, peer tutoring, and curriculum adjustments under the K to 12 program, students' numeracy levels have remained largely unaddressed (Bactin, 2016). Factors affecting performance extend beyond what teacher-made tests or intelligence assessments can measure.

Research indicates that a positive attitude toward mathematics is a crucial precursor to numeracy success (Foreman, 2005). However, many students

exhibit mathematics negativity caused by low self-expectation, parental bias, inadequate learning strategies, and fear of mistakes. This negativity leads to stress, low motivation, boredom, behavioral problems, and avoidance of mathematics classes, all of which hinder professional and academic success (Buckley, 2015). At DEIHS, 48 of the 54 non-numerate students reported feeling nervous in Mathematics classes, 13 found the subject boring, and 5 believed it was acceptable to perform poorly in mathematics.

The importance of non-cognitive skills in academic performance is increasingly recognized, especially under the K to 12 Basic Education Program. Gutman and Schoon (2013) and Rosen, Walton, and Stoll (2010) highlighted that non-intellective skills can influence academic outcomes as significantly as cognitive skills. This underscores the need for interventions that simultaneously develop cognitive and non-cognitive skills to improve numeracy outcomes.

Innovation, Intervention, and Strategy

To address these challenges, the **VIEW Program** (Video presentations, Interactive games, Enhancement activities, and Window cards) was developed as an intervention for non-numerate students at DEIHS. This program integrates varied learning experiences to enhance both numeracy and positive attitudes toward mathematics. Video presentations introduce concepts in an engaging manner, expanding attention spans and generating interest (Mendoza, Carato, & David, 2015; Faustino, 2017). Interactive games allow students to explore mathematical concepts while receiving immediate feedback, supporting active and visual learning (Randel, Morris, Wetzel, & Whitehill, 2015; McLester, 2005). Enhancement activities, using teacher-made or downloaded worksheets, deepen understanding, recognize students' prior knowledge, and foster personal and social development (AQA, n.d.). Window cards under time constraints facilitate deliberate practice, supporting mastery and reinforcing retention (Ericsson, 2000).

Implementation of the VIEW Program is guided by structured steps to ensure effectiveness:

1. **Arrange conference with parents** - Parents are oriented on the program to encourage consistent support and positive reinforcement (Foreman, 2004).
2. **Build Math positivity** - Establish a psychologically safe environment and assure students that they will be supported rather than criticized.
3. **Start with care** - Activate motivation through memories of positive school experiences and affirm the teacher's commitment to student success.
4. **Demonstrate the value of mathematics** - Show practical, localized applications of mathematics to make lessons relevant and inspiring.
5. **Retest to distress** - Provide opportunities for students to reassess their learning, promoting accountability and self-reliance.
6. **Have students assess you** - Encourage feedback to ensure a psychologically healthy learning environment and adjust instruction as needed.
7. **Monitor students regularly** - Track attendance and participation, reporting concerns promptly to parents.

Action Research Questions

The study focuses on testing the effectiveness of the VIEW Program in developing positive attitudes toward mathematics while enhancing students' numeracy levels. Specifically, it seeks to answer the following questions:

1. What is the numeracy level of the respondents before the VIEW Program?
2. What is the attitude towards Mathematics of the respondents before their exposure to the VIEW Program?
3. What is the numeracy level of the respondents after the VIEW Program?
4. What is the attitude towards Mathematics of the respondents after their exposure to the VIEW Program?
5. Is there a significant difference between the numeracy level of the respondents before and after the VIEW Program?
6. Is there a significant difference between the attitude towards Mathematics of the respondents before and after their exposure to the VIEW Program?
7. Is there a significant relationship between the respondents' attitude towards Mathematics and numeracy level?

This research is significant in providing educators with an evidence-based strategy to integrate cognitive and non-cognitive skill development. Enhancing numeracy through the VIEW Program can foster student confidence, engagement, and long-term mathematical competence, preparing learners for academic success and real-life problem solving (Mata, Monteiro, & Peixoto, 2012; McLester, 2005).

Literature Review:

Numeracy and mathematical competence are essential components of students' academic success and everyday functioning. Numeracy refers to the ability to use mathematical knowledge effectively in real-life situations, enabling individuals to make informed decisions and solve practical problems (Oxford University Press, 2022; National Numeracy, 2022). In today's data-driven society, individuals are constantly required to interpret numerical information, making numeracy a critical life skill.

The increasing demands of the digital age further highlight the importance of numeracy. With the widespread use of technology and data analytics, individuals must possess strong numerical and analytical skills to function effectively. Approximately 90% of new graduate jobs require digital competencies that are fundamentally built upon numeracy (Race Online, 2012). This underscores the need for students to develop strong mathematical foundations early in their education.

Despite its importance, many learners continue to struggle with numeracy. Bactin (2016) emphasized that traditional instructional approaches often fail to address the underlying causes of poor academic performance, particularly those related to non-intellective skills. The study suggests that improving learning outcomes requires a more holistic approach that considers both cognitive and non-cognitive factors.

Non-cognitive skills, such as motivation, self-confidence, and perseverance, play a crucial role in academic achievement. Gutman and Schoon (2013) found that these skills significantly influence students' educational outcomes and long-term success. Similarly, research published in *Child Development Research* (2012) highlights that emotional and social competencies contribute to students' engagement and overall academic performance.

In Mathematics education, students' attitudes toward the subject are particularly important. Mata, Monteiro, and Peixoto (2012) found that attitudes toward Mathematics are influenced by individual, motivational, and social support factors. Negative attitudes often lead to anxiety, avoidance, and poor performance. Supporting this, findings from the International Conference on Mathematics Education Research (2010) indicate that students' attitudes are strong predictors of their achievement in Mathematics.

Effective instructional strategies are essential in addressing negative attitudes and improving learning outcomes. Gilderdale and Kiddle (2009) emphasized that teaching approaches that promote engagement, confidence, and independence significantly enhance student learning. When students feel supported and actively involved, they are more likely to develop positive attitudes toward Mathematics.

The use of video-based instruction has been shown to be an effective teaching strategy. Mendoza, Carato, and David (2015) found that video presentations enhance students' understanding and retention of concepts by providing visual and contextualized explanations. Similarly, Faustino (2017) reported that video-aided instruction improves learning outcomes by increasing student engagement and attention.

In addition, video-instructed tools have been found to be particularly beneficial for low-performing students. Guban and Tepora (2017) demonstrated that such tools help simplify complex concepts and make learning more accessible. These findings suggest that integrating multimedia resources into instruction can significantly improve students' comprehension and interest in the subject.

Another effective strategy in Mathematics instruction is the use of educational games. Randel, Morris, Wetzel, and Whitehill (n.d.) found that games promote active learning, immediate feedback, and reduced anxiety among students. This approach allows learners to explore mathematical concepts in an engaging and less intimidating environment, thereby improving both understanding and attitude.

Targeted interventions are also critical in addressing students' learning needs. Center (n.d.) emphasized the importance of identifying specific learning difficulties and implementing appropriate instructional strategies to address them. Furthermore, research from the *International Journal of Nursing Science* (2015) supports the idea that positive learning environments and student attitudes significantly influence performance outcomes.

Overall, the reviewed literature highlights the importance of integrating cognitive and non-cognitive approaches in Mathematics instruction. Strategies such as video presentations, interactive games, and targeted interventions have been shown to improve both students' attitudes and academic performance. These findings strongly support the implementation of the VIEW Program as an effective approach to enhancing numeracy and fostering positive attitudes toward Mathematics.

Methodology:

Research Methods

A. Participants and/or sources of Data and Information

Purposive sampling was utilized in this study. The participants were Grade 7 students of DEIHS who were assessed to be in "Non-numerate" level based on the Numeracy Test Result conducted every opening of the school year.

B. Data Gathering Methods

Initially, upon identification of the non-numerate students, their parents were called for an orientation regarding the Intervention Program. Parents were asked to accomplish a waiver allowing their children to come back after their respective classes for the intervention program.

The respondent's numeracy level were measured using their self-made numeracy test questionnaire validated and checked by Mathematics teachers from different schools in the City Schools Division of Dasmarinas. The total scores derived from the questionnaire determined the numeracy level of each participant and were interpreted as follows:

Score Percentage	Interpretation
96%-100%	Very High Numerate
86%-95%	High Numerate
66%-85%	Above Average Numerate
36%-65%	Average Numerate
16%-35%	Emergent
0-15%	Non-numerate

On the other hand, the researchers adapted the survey questionnaire from the study entitled "Measuring Student Attitude in Mathematics Classroom" by Arden Brookstein of the University of Massachusetts (2011) to assess students' attitude towards Mathematics.

Assessments were conducted before and after the participants' exposure to the VIEW Program.

C. Statistical Treatment of Data

The researchers used frequency counts, percentage, and mean to assess the attitude towards Mathematics and Numeracy Level of the respondents. To test for significant difference on the attitude towards Mathematics and Numeracy Level of the respondents before and after the VIEW Program, paired sample t-test was used. Paired sample t-test compares the mean scores in order to determine whether there is statistical evidence that the associated population means are significantly different. T-test is used at 0.05 level of significance. Chi-Square was used to test if there is a significant relationship between the participants' attitude towards Mathematics and Numeracy Level.

Results:

Table 1. Attitude Towards Mathematics of the Participants Before the VIEW Program

Attitude towards Mathematics	Mean Pretest	Standard Deviation	Interpretation
1. I think mathematics is important in life.	3.63	1.020	Agree
2. My math teachers listened carefully to what I had to say.	2.29	0.067	Disagree
3. I feel confident in my abilities to solve Mathematics problem.	1.37	0.364	Strongly Disagree
4. I have enjoyed math class.	2.12	1.325	Disagree
5. I receive good grades on math tests and quizzes.	1.24	0.689	Strongly Disagree
6. I never get nervous when I see Math problems.	2.38	1.113	Disagree

Table 1 shows the attitude towards Mathematics before their exposure to the VIEW Program. It yielded that the participants strongly disagree that they find themselves confident with their abilities to solve Mathematics problem and they also strongly disagree that they received good grades on Mathematics tests with mean response of 1.37 and 1.24 respectively. Moreover they also disagree that their teachers listen to what they say in class, that they never get nervous whenever they see Math problems, and they enjoy previous classes before gaining a mean responses of 2.29, 2.12, and 2.38. On the other hand, they can still see Mathematics is important in their lives with a mean response of 3.63.

The result implies that the participants are generally of negative attitude towards Mathematics. It reflects that they were previously exposed to less engaging learning activities and learning environment which do not encourage healthy exchange of thoughts and free from the stress of making mistakes in class. Yet, they it was somehow clear to them that Mathematics is vital for everyday life.

Table 2. Attitude Towards Mathematics of the Participants After the VIEW Program

Attitude towards Mathematics	Mean Post Test	Standard Deviation	Interpretation
1. I think mathematics is important in life.	4.75	0.765	Strongly Agree
2. My math teachers listened carefully to what I had to say.	4.56	0.863	Strongly Agree
3. I feel confident in my abilities to solve Mathematics problem.	3.57	0.313	Agree
4. I have enjoyed math class.	4.62	0.250	Strongly Agree
5. I receive good grades on math tests and quizzes.	3.64	0.039	Agree
6. I never get nervous when I see Math problems.	3.05	1.023	Neutral

Table shows the attitude towards mathematics of the participants after their exposure to the VIEW Program. It indicates that they strongly agree that Mathematics is important in life (4.75), that their Mathematics teachers listen to them carefully (4.56), and they already enjoyed their Mathematics class (4.62). They also agree that they are now confident with their mathematical abilities, to solve mathematics problem (3.57), and they received good grades in Mathematics (3.64). On the other hand, they still take no side when asked about being nervous whenever they see Mathematics problem (3.05).

It reveals that students were able to enjoy the implementation of the VIEW program in the sense that it was able to showcase to them learning experiences which are not boring, engaging, and interactive resulting to a more interesting and lively class. Teachers were also able to cater their needs without inflicting anxiety to the students resulting to the shift of perception - that they are now confident with their problem solving abilities although some still get nervous solving mathematics problem.

Table 3. Numeracy Level of the Participants Based on Pre-Test

Topic	Mean Score	Percentage	Interpretation
Operations on Whole Numbers	5.56	18.5%	Non-numerate
Operations on Decimals	3.66	12.2%	Non-numerate
Operations on Fraction	3.61	12.0%	Non-numerate
Over - All	**4.27**	**14.2%**	**Non-numerate**

The table indicates the numeracy level of the participants based on their mean scores on the pre-test. Evidently, they are generally non-numerate. They got the lowest mean score on operations on fractions with a mean of 3.61, followed by operations on whole numbers with 5.56 mean scores, and 3.66 mean scores on operations on decimals.

It is quite reasonable that they got the lowest mean score on fractions for it is the most complicated concept among the three. However, it is not impossible to get higher level of mastery on the said competencies if provided with appropriate interventions

Table 4. Numeracy Level of the Participants Based on Post-Test

Topic	Mean Score	Percentage	Interpretation
Operations on Whole Numbers	21.27	70.9%	Above Average Numerate
Operations on Decimals	21.94	73.1%	Above Average Numerate
Operations on Fraction	15.45	51.5%	Average Numerate
Over - All	**19.55**	**65.1%**	**Above Average Numerate**

This table shows the numeracy level of the participants based on the mean score of the post test result. It shows that the mean score in the operations on whole numbers is 21.27 or 70.9% interpreted as above average numerate, 21.94 or 73.1% on the operations on decimals interpreted as above average numerate, 15.45 or 51.5% on the operations on fractions interpreted as average numerate. Over-all mean score is 19.55 or 65.1% interpreted as Above Average.

The mean score reveals that the participants have the ability to perform fundamental operations involving whole numbers, decimals, and fractions.

Table 5. Test for Significant Difference on Attitude Towards Mathematics of the Partcipants Before and After the VIEW Program

	Mean	Mean difference	t-value	p- value	Remarks
Before	2.176	1.822	0.367	0.003	Have significant difference
After	3.998				

The table shows the test for significant difference between the attitude towards Mathematics of the participants before and after their exposure to the VIEW program. The computed t-value is greater than the computed p-value which implies that there is a significant difference.

It reveals that the VIEW Program is effective in developing positive attitude towards Mathematics of the attitude towards Mathematics of the participants. Specifically, VIEW program has been effective in providing learning experiences which are generally promoting the worth of Mathematics for daily lives, in the provision of highly engaging and very enjoyable learning experiences that they found themselves learning while just playing and having fun with the activities provided. Teacher facilitators were successful in catering and addressing the needs of the participants and effective in eradicating the fear of participating classroom activities, instead confidence was developed on the part of the participants particularly when it comes to believing in themselves that they can solve the problem.

Hence, developing positive attitude towards Mathematics is not a hopeless case. It will just take copious effort, a wide range of consideration, and appropriate package of learning activities just like the VIEW Program.

Table 6. Test for Significant Difference on the Pre-test and Post Test Scores of the Participants

Topic	Mean		Mean difference	t-value	p- value	Remarks
Whole Number	Pre-test	5.56	15.71	3.416	0.045	Has significant Difference
	Post-test	21.27				
Decimal	Pre-test	3.66	18.28	4.072	0.003	Has significant Difference
	Post-test	21.94				
Fraction	Pre-test	3.61	11.84	1.869	0.013	Has significant Difference
	Post-test	15.45				
Over-All	**Pre-test**	**4.27**	**15.28**	**3.125**	**0.024**	**Has significant Difference**
	Post-test	**19.55**				

The table shows the test for significant difference on the numeracy level of the participants based on their pre-test and post-test mean scores. Results confirm that on operation on whole numbers, t-value (3.416) is greater than the p-value (0.045) interpreted as with significant difference. On the operations on decimals, computed t-value is (4.072) and the p-value is 0.003 which means that there is a significant difference. Lastly, comparison on the performance on the operations on fractions has computed t-value of 1.869 which is greater than the p-value 0.013, interpreted as with significant difference. Over-all, the computed p-value is 3.125 which is greater than the computed p-value 0.024 which means that there is a significant difference on the numeracy level of the participants before and after their exposure to the VIEW program.

The result of the comparison reveals that the VIEW program has been effective in enhancing the numeracy level of the identified non-numerates of Dasmarinas East Integrated High School. It can be an indication that the utilization of variety of video presentations to introduce the concept, engaging interactive games for the students to explore, enhancement activities for fixing skills and correcting misconceptions, and window card to develop mastery were all effective.

Such kind of activities complemented with the genuine concern of the teachers steer the interest of the students towards the subject and develops confidence among the participants which radiate to their improved performance in Mathematics.

Table 7. Test for Significant Relationship between Attitude Towards Mathematics and Numeracy Level

	X(1)	P-value	P-value and x(1) Relationship	Interpretation
Pearson Chi square	0.216	0.485	>	Strong Positive Association

The table shows the test for significant association between the participants attitude towards mathematics and numeracy level after their exposure to the VIEW program. It yielded that the computed x(1) value is 0.216 is less than the p-value 0.485 interpreted as with strong positive correlation.

This is an implication that attitude towards mathematics is directly related to their numeracy level. The more positive their attitude towards Mathematics the higher the probability that they will also fall into a better numeracy level.

Furthermore, this implies that mathematics teachers should establish first a positive attitude towards mathematics among the learners to ensure that they will appreciate and perform better in Mathematics. Teachers

should always put into consideration the development of non-cognitive skills and not solely with the cognitive skills. A teacher should genuinely provide learning experience that does not only focus on learning the concept but in the appreciation of the value of the concept as well.

Many strategies might be introduced but teachers should not also forget that it is the utmost concern for the students to learn coming from them that will generate a more active and fruitful learning experiences. The manner how a teacher attends the concern of student may affect the students' attitude towards mathematics. Remedial programs should be interactive, engaging, enjoyable and relatable for the students. Such kind of strategies are fertile ground in honing students with high numeracy level and highly positive attitude towards the subject. Students who are confident with their ability to perform mathematical operations and are keen in dealing with problem solving.

Thus, VIEW Program is highly recommended by the researchers in developing positive attitude towards mathematics to enhance students' numeracy level.

Discussion:

The findings of this study provide strong evidence that the VIEW Program is an effective intervention in improving both students' attitudes toward Mathematics and their numeracy levels. The results directly address the research questions by demonstrating significant improvements in both variables after the implementation of the program, as well as a positive relationship between them.

Prior to the intervention, participants exhibited negative attitudes toward Mathematics, characterized by low confidence, anxiety, and lack of engagement. These findings are consistent with the work of Foreman (2005) and Buckley (2015), who emphasized that students often develop negative perceptions of Mathematics due to prior experiences, fear of failure, and lack of meaningful engagement. Similarly, Mata et al. (2012) highlighted that students' attitudes toward Mathematics are shaped by motivational and social factors, which influence their academic performance.

After exposure to the VIEW Program, students demonstrated significantly more positive attitudes toward Mathematics. They reported increased enjoyment, confidence, and perception of teacher support. This supports the findings of Gilderdale and Kiddle (2009), who emphasized that engaging and supportive learning environments promote confidence and independence among learners. The use of interactive and student-centered strategies in the VIEW Program created a psychologically safe environment that encouraged participation and reduced fear.

The significant improvement in numeracy levels further confirms the effectiveness of the intervention. From being classified as non-numerate, students progressed to average and above-average numeracy levels. This aligns with the findings of Bactin (2016), which emphasized the need for targeted interventions that address both cognitive and non-cognitive aspects of learning. The improvement suggests that when students are motivated and engaged, their academic performance also improves.

The integration of video presentations contributed significantly to students' understanding of mathematical concepts. This supports the findings of Mendoza et al. (2015) and Faustino (2017), who reported that video-based instruction enhances comprehension, attention, and retention. Additionally, Guban and Tepora (2017) found that video-instructed tools are particularly effective for low-performing students, as they simplify complex concepts and make learning more accessible.

The use of interactive games also played a crucial role in improving students' learning experiences. Randel et al. (n.d.) found that educational games promote active learning, reduce anxiety, and increase student engagement. In this study, games allowed students to explore mathematical concepts in a non-threatening environment, which contributed to their improved confidence and performance.

Furthermore, the findings revealed a positive relationship between students' attitudes toward Mathematics and their numeracy levels. This supports the claims of Gutman and Schoon (2013) and Rosen et al. (2010), who argued that non-cognitive skills such as motivation, confidence, and attitude significantly influence academic outcomes. The results imply that improving students' attitudes can lead to better academic performance in Mathematics.

Overall, the study confirms that integrating cognitive and non-cognitive strategies in instruction is essential in addressing learning gaps. The VIEW Program, through its combination of video presentations, interactive games, enhancement activities, and mastery exercises, provided a comprehensive approach that improved both the affective and cognitive domains of learning.

Conclusion

This study aimed to determine the effectiveness of the VIEW Program in developing positive attitudes toward Mathematics and enhancing the numeracy levels of Grade 7 students. The findings revealed that the intervention significantly improved both students' attitudes and their numeracy performance. Additionally, a positive relationship between attitude and numeracy level was established, indicating that students who develop more favorable perceptions of Mathematics are more likely to perform better academically.

The results highlight the importance of addressing not only cognitive skills but also non-cognitive factors such as motivation, confidence, and emotional engagement in Mathematics instruction. The VIEW Program proved to be an effective strategy in creating a supportive and engaging learning environment that fosters both skill development and positive attitudes.

However, studying has certain limitations. The use of a one-group pre-test post-test design limits the generalizability of the findings, as there was no control group for comparison. Additionally, the study focused only on a specific group of Grade 7 students, which may not represent all learners in different contexts. Future research may consider using a larger sample size, multiple schools, and experimental designs with control groups to strengthen the validity of the findings.

Despite these limitations, the study offers significant practical implications. Teachers are encouraged to adopt innovative and interactive instructional strategies that integrate both cognitive and affective learning components. Schools may also consider implementing structured intervention programs like the VIEW Program to support struggling learners. Ultimately, fostering positive attitudes toward Mathematics is a critical step in improving students' numeracy skills and overall academic success.

Action Plan and Recommendations for the VIEW Program

The following action plan integrates the objectives, activities, and time frame for implementing the VIEW Program while aligning with the recommendations derived from this study. It is designed to enhance students' numeracy skills and foster a positive attitude towards Mathematics.

Objectives	Project/Program	Time Frame	Expected Output	VIEW Strategy/Recommendation
Determine the numeracy level of Grade 7 and 8 students	Administration of Numeracy Test	June	Students have taken the test; List of numerates and non-numerates students	**Baseline Assessment**: Establish initial performance levels to tailor interventions (Bactin, 2016)
Orient students and parents about the numeracy program	Orientation Program	June	Parents and students are well oriented; Memorandum of agreement signed	**Parental Involvement (I)**: Encourage active support from parents to reinforce positive attitudes (Foreman, 2004)
Improve students' numeracy level and develop positive attitude towards Mathematics	VIEW Program: A Numeracy Intervention Program of DEIHS	July - October	Non-numerate students improve numeracy; Students develop a positive attitude towards Mathematics	**V - Video Presentations**: Use contextualized and engaging videos to introduce concepts (Mendoza, Carato, & David, 2015; Faustino, 2017)
Establish clear directions for the implementation of the VIEW Program	Planning of Preparation and Implementation of VIEW Program	October	Program of activities and working committee	**Positive Learning Environment**: Create a psychologically safe, supportive classroom to motivate students (Buckley, 2015; Gutman & Schoon, 2013)
Improve students' numeracy level by providing varied and	Production of Instructional Materials; Creation of Activities	October - March	Updated instructional materials and student activities for VIEW Program	**I - Interactive Games & E - Enhancement Activities**: Incorporate games and worksheets to reinforce learning, provide hands-on

meaningful activities				exploration, and correct misconceptions (Randel, Morris, Wetzel, & Whitehill, 2015; Norberto & Tepora, 2017; AQA, 2020)
Achieve mastery in fundamental operations through practice	Window Card Practice	October - March	Students demonstrate mastery in fundamental operations	**W - Window Card Practice**: Repeated, time-bound exercises to build fluency and confidence (Ericsson, 2000)
Ensure sustainability and continuous improvement	Monitoring and Evaluation	Ongoing	Regular assessment of program effectiveness; adjustments based on feedback	**Sustainability and Monitoring**: Conduct pre-tests, post-tests, and gather student feedback to refine interventions (Bactin, 2016)
Expand program to other contexts	Replication and Expansion	Future	VIEW Program implemented in other grade levels or schools	**Replication and Expansion**: Adapt program for wider use to support non-numerate or low-performing students (Macapaz, 2020)

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