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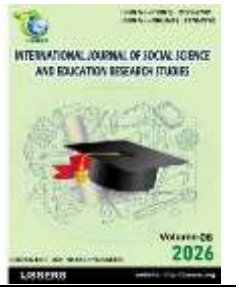


# Touch-Me-Math Teaching Technique Strategies in Selected Kindergarten Pupils

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**ABSTRACT**

Numeracy is one of the fundamental skills that a learner must develop. Being numerate can help every person to be confident and use it in everyday living. Department of Education (DepEd) as well as the school develop project and aims that every learner must be numerates. However, In Kindergarten it should be taught at early age to become confident in solving basic Math problems into complex as they step to another grade level. The basis of this study is to identify the learners who are struggling in identifying and recognizing numbers from 0-10 and their corresponding value. Related to such, the researchers pursue the causes of the problem through the help of TOUCH-ME- MATH. Therefore, the study focuses on the pupils' needs to fill in the gap of pupils' performance, particularly in Math for third and fourth quarter. The study utilized an experimental quantitative design. Pre- and Post-Assessment were administered to compare the performance of the kindergarten pupils and provided proposed comprehensive interventions cited above. The result shows that the intervention made was effective as seen in the increase of pupil performance from below satisfactory to a satisfactory level. Hence the increase of localized teaching materials contributed to the school Learning Resource and Management Development System (LRMDS). The study emphasizes the unified comprehensive intervention for academically challenged pupils significant to the success of the study.

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**KEYWORDS:**

Education, Numeracy, MELCS (Most Essential Learning Competency) Least Intervention, Mathdemix, Experimental Quantitative Design

## I. INTRODUCTION

Mathematics is an important subject that plays a critical role in the development of children's cognitive and problem-solving skills. Early childhood education provides a crucial foundation for children's mathematical learning and development. Studies in the field of early numeracy have reported large individual differences among children before the onset of formal education (Aunio, Hautamäki, Sajaniemi, & Van Luit, 2009; Jordan, Kaplan, Ramineni, & Locuniak, 2009; Wright, 1991). The TOUCH-ME-MATH technique is a hands-on approach that involves the use of manipulatives and physical objects to teach mathematical concepts. The technique is based on the idea that young children learn best through sensory experiences and exploration. For example, teachers may use blocks, counting beads, or other physical objects to teach children about numbers, shapes, and patterns.

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The technique has been widely used in kindergarten classrooms, and research studies have shown that it can be effective in improving children's mathematical skills. For instance, a study conducted by Sarama and Clements (2009) found that children who received instruction using manipulatives outperformed their peers who received traditional instruction on measures of mathematical achievement.

While the TOUCH-ME-MATH technique has shown promise in improving children's mathematical skills, its implementation in kindergarten can be challenging. One factor that can facilitate the successful implementation of the technique is teacher training and support. Teachers who receive training on how to use manipulatives effectively are more likely to use the technique in their classrooms and to promote children's learning. On the other hand, lack of resources and time constraints can hinder the successful implementation of the technique. Additionally, it is important to note that the TOUCH-ME-MATH technique is not the only effective approach to teaching mathematics in kindergarten. Other approaches, such as visual representations and games,

can also be effective in promoting children's mathematical learning.

**Research Question**

The study aims to determine the effect of the project to the Kindergarten pupils of Southville 6 Elementary School. Specifically, it aims to answer the following question.

1. What is the pre-assessment of Kindergarten pupils in Southville 6 Elementary School?
2. What is the post-assessment score of Kindergarten pupils in Southville 6 Elementary School?
3. What project will be proposed to enhance numeracy skills of Kindergarten pupils?

**Scope and Limitation of the Study**

The research was conducted within the bounds of Southville VI Elementary School among Kindergarten pupils from third and fourth quarter for the school year 2023-2024. The Kindegarten pupils were the pupils who were struggling in number recognition.

The researcher limited the study to the effectiveness of the implementation of the Project Touch-Me-Math.

**Framework**

The proponents gather account-related materials that were deemed helpful in attaining an in-depth discussion of the research problem and development of the research framework.

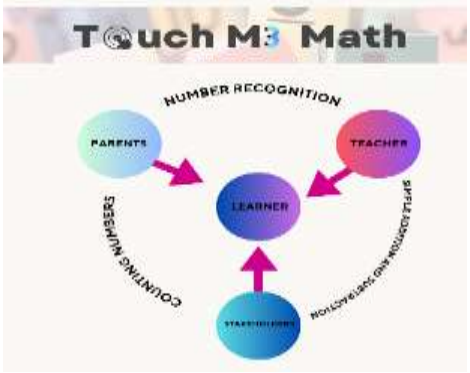


**Figure 1. Conceptual Framework of the Study**

The framework shows how the project affects the different members of the project. The stakeholders and the parents played a vital role in fulfilling the project, full support to all learners was provided in the entire implementation of the project. Learners were cited in the middle of the framework represented as the primary source of the interventions created namely project TOUCH-ME-MATH. Hence, Stakeholders including teachers, the prime movers of the project, supported by the barangay officials and parents were also the team players of the success of the project as seen in figure 1.

## II. METHODOLOGY

This chapter provides information on the study's research methods and describes in detail how the research was conducted. It discussed the study's research design, sampling, participants, instruments, and data collection procedure employed to study the impact of implementing Project TOUCH-ME MATH on a specific group of learners, and data analysis.

**Research Design**

The research design employed in the study was experimental quantitative. The study incorporated a group of learners engaged in the learning process. The learners completed a pre-assessment. Subsequently, a series of teacher demonstrations were carried out for the selected pupils at Southville VI Elementary School. Following the implementation of for the third and fourth quarter evaluations, the learners completed a post-assessment.

**Respondents of the Study**

The respondents in this study consisted of pupils selected Kindergarten learners at Southville VI Elementary School. The research project was conducted throughout the third and fourth quarters of the academic year 2023-2024. The selection of respondents was conducted using purposive sampling. A group of 20 learners was chosen and actively engaged in the research endeavor. All the participants in the study had below-average performance in numeracy during the initial and succeeding grading periods.

**Research Instrument**

The researchers obtained the required authorizations and consent from the principal, parents, and teachers involved, as well as the active participation and collaboration of the participants. Furthermore, all participants were given an overview of the study's desired outcomes. The data collection period spanned from March 14, 2024, through May 30,2024 The EGMA results were the basis for identifying the pupils' respondents. The analysis focused on evaluating the efficacy and efficiency of the localized materials and the process itself. The data was validated by assessing the analysis for the post-test results.

**Data Gathering**

Two sets of data were gathered within the bounds of Southville VI Elementary School particularly pupils with unsatisfactory level from first to second grading period. The initial data were derived from the learners' existing schema about the topic area. The second dataset was obtained from the outcomes of the post-assessment carried out by the specialized Math teacher. This data analysis aims to identify the effectiveness and efficiency of the project TOUCH-ME MATH through the utilization of localized materials and teaching strategies employed such as in-door and out-door math engagement activities.

**Statistical Treatment**

The analysis focused on assessing the pre- and post-assessment of learners' competence on the leased learned lessons in Mathematics using simple mean and percentage.

**Research Ethics**

Ethical considerations were diligently implemented during the study, thereby protecting all participants' rights, and preventing potential violations. The participants of the study have appropriately signed the consent forms. The collected data has been and will continue to be handled with confidentiality by the researchers.

## III. RESULTS

This chapter shows the data and analysis derived from the results based on the research questions of the study. The pre-test and post-test results on the implementation of Project TOUCH-ME-MATH through utilization of validated materials and teaching strategies of teachers in Mathematics.

**Pre-test and Post-test Result**

The participants took the pre-test prior to the implementation of the project TOUCH-ME-MATH. The tool used was teacher-made and validated by the 1 principal inclined in Mathematics 2 master teachers and 3 teachers with more than ten years' experience in teaching Math in elementary. The tool comprises 20 items with multiple choices, and the questions constructed were all least learned lessons in third and fourth quarter. The results were shown in table 1.

**Table 1. Pre-test Scores of Selected Kindergarten pupils**

| Group | Pre-test | Post-test |
|---|---|---|
| Mean | 1.4 | 4.9 |
| MPS | 28.00 | 98.00 |
| N | 20 | 20 |
| Ave. Score | 3 | 5 |

Table 1 shows the Pre-test scores of Klndergarten pupils in Mathematics for quarter three and four. It shows that most of the pupils obtained 28 percent or 3 correct answers out of 5 items among 20 pupils with poor academic performance in Math. Also, the 28.00 mean or the 32.58 means that most of the least learned lessons in Kindergarten shall be taught and served as basis for intervention. However, the average score of Kindergarten pupils was 5 with 98 percent. Thus, resulted to 4.9 mean and 98.00 MPS with 70.00 difference which is significantly contributed to the performance of the pupils in Math. The 20 pupils who undergone the Project TOUCH-ME-MATH were all graduates and attained the satisfactory level. More so, the lesson in project TOUCH-ME-MATH were delivered by 1 teacher in key stage 1 and scheduled every day after class from Monday to Friday at 3:30-4:00 in the afternoon while in the morning provided with parent consent and BLGU Memorandum of Understanding (MOU) and Deed of Donations (DODA).

## IV. DISCUSSION

The chapter discussed the implementation process of Project TOUCH-ME-MATH and its effect on the pupil's performance.

As a result, the MPS increased from 1.40% on the pretest to 98.00% on the posttest. From the third to fourth quarter, 100% of the participants' quarterly grades improved from below satisfactory to at least satisfactory level. It simply means that the project is efficiently and effectively implemented as seen in the post test results and quarterly grades of the pupils. Also, the demonstration teachings of teachers and the strategies and techniques used seemed to be effective as seen in the average MPS. The average MPS was 98.00%, with a mean of 4.9 which signifies that the pupil-participant somehow attained mathematical knowledge and skills aligned to the least learned in Math based on the Most Essential Learning Competencies (MELCS) RO 10, s. 2020.

## REFERENCES


1. Dampog, M. (2021). Impact of Teaching
2. Mathematics using the Distance Learning
3. Delivery Modalities to the Performance of Grade
4. 5 pupils' school Baras Pinugay Elementary
5. School. 10.13140/rg.2.2.23522.25285.
6. Hosein, A., & Harle, J. (2018). The relationship
7. between students' prior mathematical
8. attainment, knowledge and confidence on
9. their self-assessment accuracy. Studies in
10. Educational Evaluation, 56, 32-41.
11. https://doi.org/10.1016/j.stueduc.2017.10.008
12. San Juan, R. (2019). Deped welcomes PISA
13. results, recognizes 'gaps' in education
14. quality. PhilStar global. https://www.philstar.com/headlines/2019/12/04/1974229/depedwelcomes-pisa-results-recognizes-gaps-education-quality
15. OECD. (2019). Programme for international s
16. tudents' assessment (PISA) results from
17. PISA 2018. OECD 2019, 1(3), 1-12.
18. https://www.oecd.org/pisa/publications/PISA2018_CN_PHL.pdf
19. Mullis, I., Martin, M., Foy, P., Kelly, D., &
20. Fishbein, B. (2019). TIMSS 2019
21. international results in mathematics and
22. science. TIMSS & PIRLS International
23. Study Center, Lynch ISSN 2719-0633
24. (Print) 2719-0641 (Online) | 85 School of
25. Education and Human Development, Boston
26. College and International Association for
27. the Evaluation of Educational Achievement
28. (IEA), 9. https://timss2019.org/reports/wp-content/themes/timssandpirls/download-center/TIMSS-2019-International-Results-in-Mathematics-and-Science.pdf