Parents' Strategies for Enhancing Counting Skills in 5-6-Year-Old Children

Ni Ketut Erawati[1] , Hapidin[2], Sri Wulan[3]

[1] Department of Education, Universitas Negeri Jakarta, Indonesia
[2] Department of Education, Universitas Negeri Jakarta, Indonesia
[3] Department of Education, Universitas Negeri Jakarta, Indonesia

Abstract

This study explores parents' strategies to support their 5-6-year-old children's understanding of counting. The research adopts a qualitative descriptive design, allowing for an in-depth understanding of parents' experiences and practices through interviews and live observations. The informants are parents from a private kindergarten (TK) in Jakarta, Indonesia, who actively teach their children counting activities. The findings reveal that parents utilize three main strategies: mathematics discussions, integrating numeracy into daily activities, and using educational games such as 'Monopoly' or digital applications like 'ABC mouse'. These strategies help children develop their understanding of basic mathematical concepts naturally and enjoyably. The results have significant implications for early childhood education. The practices adopted by parents have proven effective in enhancing children's mathematical comprehension. Integrating numeracy into everyday activities allows children to connect mathematical concepts with real-life situations, while mathematical conversations enrich their learning experiences. The use of educational games also facilitates engaging and interactive math learning. Based on these findings, it is recommended that parents and educators continue to promote these strategies to support early childhood mathematical learning and develop resources to facilitate their implementation. With a holistic and integrated approach, this research can provide children with a solid mathematical foundation for future success in learning mathematics.

Keywords: parenting strategies; counting comprehension; early childhood education.

1. Introduction

Identifying numbers or displaying acceptable levels of mathematical skills in early childhood is significant for forming numeral effectiveness in the future. Even in an educational context, numeracy is one of the abilities parents can support and nurture through numeracy practices in the home setting. The findings of several investigations suggest that home numeracy interactions and home numeracy environment significantly influence children's mathematics learning. According to Girard et al. (2021), studies provide evidence of a strong link between home numeracy practices, including engaging in number games or using numbers in any way with children, and various forms of mathematics in early primary schooling. This shows that parents' involvement in daily number-related activities to help children be numerate is very beneficial. This underscores that parental participation in daily numeracy activities can significantly enhance children's skills.

Furthermore, Litkowski et al. (2020) state that the development of numeracy knowledge in preschool children begins early through interactions with parents. They mapped the development of early childhood mathematical skills and found that children learn specific numeracy skills through simple yet meaningful activities at home. Therefore, parents must actively participate in activities that teach basic mathematical concepts from an early age.

Additionally, Napoli et al. (2021) identified that literacy and numeracy practices carried out by parents with their preschool children have specific characteristics that strongly support the development of numeracy skills. For example, reading books involving numbers and counting everyday objects can provide a strong foundation for children's understanding of numeracy. This indicates that simple activities performed at home can long-term impact children's mathematical development. Research by Susperreguy et al. (2020) also supports the idea that the home numeracy environment, including the frequency and quality of numeracy interactions between parents and children, predicts the growth of children's mathematical skills in kindergarten. They found that children frequently

engaged in home numeracy activities showed faster mathematical development than children who did not.

Moreover, Sitopu et al. (2024) emphasised the importance of mathematical literacy in the primary education curriculum, which aligns with the role of parents in introducing basic mathematical concepts at home. They highlighted that integrating mathematical literacy in primary education is crucial for establishing a solid foundation for children's future mathematical abilities. Furthermore, Timoteo (2024) found that the language used at home is also related to children's math learning outcomes. This suggests that parents who use language that supports numeracy and mathematical understanding at home can help their children develop these skills more effectively. Various studies indicate that parental involvement in home numeracy practices is vital for developing early childhood skills. Parents can help their children build a strong foundation for future mathematical success by creating an environment rich in numeracy activities and providing continuous support. This support helps children understand basic mathematical concepts and fosters their interest and confidence in this field.

Despite numerous studies identifying the importance of the home numeracy environment and parental interactions in the development of children's numeracy skills, there still needs to be a significant research gap concerning effective specific strategies for parents of children aged 5-6 years. Studies by Girard et al. (2021) and Susperreguy et al. (2020) emphasise the correlation between home numeracy practices and children's mathematical abilities but need to provide detailed insights into the most effective methods or approaches for this age group. Similarly, Litkowski et al. (2020) and Napoli et al. (2021) describe various numeracy activities commonly conducted by parents but need to explicitly map out the strategies most successful in enhancing numeracy understanding in children aged 5-6 years.

Furthermore, although research by Sitopu et al. (2024) and Timoteo (2024) provides insights into the importance of integrating mathematical literacy and the language of instruction in teaching mathematics, they need to examine how parents can adapt these strategies at home for preschool children. These studies focus on the school context and formal curriculum, leaving a gap in understanding the best

practices in the home environment. Therefore, more detailed and evidence-based research is urgently needed to explore specific strategies parents can implement to support numeracy development in children aged 5-6 effectively. Such research would provide practical guidance that parents can use to maximise their children's mathematical potential at this critical stage of development.

2. Literature Review

2.1 Early Childhood Numeracy Comprehension

Early numeracy understanding is a critical foundation for developing more complex mathematical skills later in life. Various theories and research studies have examined the factors influencing the growth of these skills, including environmental variables, parental involvement, and children's cognitive and linguistic abilities. Research by Bernabini et al. (2020) emphasises that ecological variables and intergenerational pathways play a significant role in the development of children's numeracy. A home environment rich in numeracy stimuli and parental numeracy practices can enhance children's numeracy skills. Bernabini and colleagues found that parental involvement in activities involving numbers and calculations, such as playing math games or daily counting activities, positively impacts children's numeracy abilities. Furthermore, these practices often transmit parental numeracy skills to children, highlighting the importance of intergenerational pathways in numeracy development.

DePascale, Prather, and Ramani (2021) highlight the importance of children's spontaneous focus on numbers (SFON) and math talk during play activities. They found that children spontaneously interested in numbers and mathematics tend to have better numeracy skills. Additionally, parental involvement in math talk during play contributes to children's mathematical skills development. When parents actively discuss numeracy concepts and encourage children to think about numbers in play, children are more likely to understand and internalise these concepts. Del Río et al. (2021) investigated the role of parental beliefs and feelings about mathematics in children's mathematical achievement in Chile. They found that positive parental beliefs about the importance of mathematics and their confidence

in their mathematical abilities are closely related to their children's mathematical achievement. Children whose parents have a positive attitude toward mathematics tend to perform better. This indicates that parental attitudes and beliefs can influence how they support their children's mathematics learning at home.

Dini (2021) emphasises the role of parents in shaping the Home Learning Environment (HLE) for young children. A supportive learning environment, including providing numeracy materials and involving children in activities that stimulate counting skills, is crucial for developing children's numeracy. Parents who actively create an HLE rich in numeracy stimuli help their children build a strong foundation for future mathematical skills. Eason and Ramani (2020) explore the importance of math talk between parents and children, particularly in formal learning and guided play activities. They found that when parents actively engage in math talk, especially about fractions, children demonstrate a better understanding of these mathematical concepts. Structured activities involving math talk reinforce children's knowledge and enhance their ability to apply mathematical concepts in various situations.

Early numeracy understanding is influenced by various factors, including environmental variables, parental involvement, and children's cognitive and linguistic skills. A home environment rich in numeracy stimuli and frequent interactions with parents is crucial for developing children's counting abilities. Additionally, parents' beliefs and attitudes toward mathematics and math talk during play activities play a vital role in developing children's numeracy skills. By understanding and implementing these strategies, parents can effectively support early numeracy development in their children, building a solid foundation for future mathematical achievement.

2.2 The Role of Parents in Understanding Numeracy in Children Aged 5-6 Years

The role of parents in shaping the numerical understanding of children aged 5-6 is highly significant, and various empirical studies have identified factors and strategies that parents can implement to enhance their children's numeracy skills.

Research by Susperreguy et al. (2020) emphasises that the home numeracy environment greatly influences the development of children's mathematical skills. A numeracy-rich environment, including math books, educational games, and everyday activities involving numbers, can enhance children's numerical comprehension. Parents who actively integrate numbers into daily activities help their children build a better understanding of numeracy. For example, parents can involve children in counting objects around the house or measuring ingredients while cooking, indirectly teaching basic mathematical concepts.

Zhang et al. (2020) demonstrate that numeracy activities between parents and children, such as games involving numbers and applying numeracy concepts in daily life, can predict children's mathematical development from preschool to elementary school. Parents who consistently engage their children in numeracy activities tend to help them develop strong counting skills. Playing board games that involve counting or using play money to run a mock store can strengthen children's numerical understanding. Timoteo (2024) highlights the importance of the language used at home in children's mathematics learning outcomes. Language that supports math learning, such as clear and explicit language in explaining numeracy concepts, can help children better understand mathematics. Parents who use language rich in mathematical terminology in everyday interactions help their children build the vocabulary and concepts needed for mathematical comprehension.

Sitopu et al. (2024) emphasise the importance of integrating mathematical literacy into the primary education curriculum, aligning with the role of parents in introducing math concepts at home. By understanding the importance of mathematical literacy, parents can be more proactive in teaching and discussing math concepts with their children. For instance, parents can use storytime to read books containing math concepts or discuss the numbers and shapes they encounter daily. Zippert and Rittle-Johnson (2020) found that the home math environment, which encompasses more than just numeracy, includes verbal interactions about math, which are crucial for children's mathematical development. Math-related conversations between parents and children, including discussions about math

concepts in everyday contexts, help children understand and internalise mathematical concepts more effectively. Parents can encourage their children to talk about math by asking questions that stimulate mathematical thinking, such as "How many apples do we need if everyone wants two?" or "How can we divide this cake so everyone gets an equal piece?"

Overall, the role of parents in the numerical understanding of children aged 5-6 is crucial. Empirical research shows that the home numeracy environment, joint numeracy activities with parents, the use of appropriate instructional language, the integration of mathematical literacy in learning, and math-related discussions at home all contribute to the development of children's numeracy skills. Parents who are actively involved and create a supportive learning environment not only help their children understand basic mathematical concepts but also build a strong foundation for future academic success. By implementing these strategies, parents can play a significant role in supporting their children's mathematical development, providing them with the tools and confidence needed to succeed in this field.

3. Materials and Methods

3.1 Study Design

This study employs a descriptive qualitative design to explore the strategies used by parents in supporting the arithmetic comprehension of children aged 5-6 years. This design was chosen because it allows the researcher to understand parents' experiences and practices through interviews and direct observations. This research focuses on parents' specific strategies and their impact on children's numeracy skills. The informants in this study are parents with experience teaching arithmetic activities to their children aged 5-6 years. The informants were selected from a private kindergarten in Jakarta, Indonesia. The criteria for selecting informants included parents who are actively involved in their children's education and have diverse backgrounds to provide a range of perspectives.

3.2 Data Analysis

The data analysis in this qualitative descriptive research follows the approach outlined by John W. Creswell. This approach encompasses several critical steps to ensure systematic and valid data analysis.

1. Data Collection

   Data were collected through semi-structured interviews and observations. Semi-structured interviews allowed for flexibility in asking additional questions based on informants' responses. At the same time, observations provided direct insight into how parents implement counting strategies in daily interactions with their children.

2. Transcription

   The results of the interviews and observations were transcribed verbatim to ensure that all information was recovered. These transcripts served as the foundation for further analysis.

3. Reading and Initial Coding

   The transcripts were read multiple times to gain a thorough understanding. Subsequently, the initial coding process involved marking text segments relevant to the research topic, specifically the strategies parents use to teach counting.

4. Theme Grouping

   The identified codes were categorised into main themes. Creswell suggests grouping data by themes to identify patterns and relationships within the data. These themes include, for instance, types of counting activities, frequency of numeracy interactions, and specific teaching techniques parents use.

5. Description of Themes and Sub-themes

   Each theme was elaborated on in detail, providing in-depth descriptions of emerging sub-themes. These descriptions included concrete illustrations from the data, demonstrating how these strategies were applied and their impact on children's understanding of numeracy.

6. Data Presentation

   The analysed data were presented in a narrative form, using direct quotations from interviews to support the findings. This presentation helps to depict

parental practices concretely and provides a rich context for the research results.

7. Data Validation

Triangulation was conducted to ensure data validity and reliability by comparing interview data with observational results. Additionally, member checking was performed by asking informants to review the formulated findings to ensure the accuracy and alignment of the researchers' interpretations with their experiences.

Through these qualitative descriptive data analysis steps, this research aims to provide a comprehensive and in-depth depiction of parental strategies for supporting the numeracy understanding of children aged 5-6. Creswell's approach enables researchers to systematically organise data, identify central themes, and provide detailed descriptions, resulting in a rich and informative understanding of the researched topic.

4. Result

According to the perspectives obtained from observations and interviews, informants identified at least three ways to promote numeracy understanding in children aged 5-6. Some of these strategies are as follows: The first strategy involves involving children in Mathematics discussions, the second consists of trying to incorporate numeracy into the children's day events, and finally, the third involves using educational games.

Mathematics discussions

" *During the daily routines, I practice discussing numbers and ideas related to math with my child. For example, while walking, I ask him how many steps we have travelled, or he has to count the number of cars we have come across. In shopping, I involve him in tallying the items we want to purchase or the prices of items of interest. Such utterances ensure that my child grasps Mathematical ideas in context."*

The informant explained that they frequently discuss numbers and mathematical concepts with their child during everyday activities. For instance, during walks, they inquire about how many steps they have taken or ask their child to count the number of cars passing by. Additionally, they encourage their child to tally the total items in the shopping basket or compare prices while shopping. The informant believes such conversations help their child grasp mathematical concepts in real-life contexts.

During a visit to the market, it was observed that the informant engaged their child in counting the number of apples they purchased. They asked the child, "If we add two more apples, how many do we have now?" The child responded enthusiastically, using their fingers to count. Furthermore, the informant also requested their child's assistance in calculating the total price of the items they were buying, providing an initial introduction to the concepts of addition and subtraction. Through this interaction, it was evident that the child was actively engaged and beginning to understand how mathematics is applied in real-life situations.

The results of interviews and observations indicate that the informant actively involves their child in mathematical discussions during everyday activities. By posing questions and encouraging their child to perform simple calculations, the informant helps them comprehend mathematical concepts in real-world contexts. Through these interactions, the child appears to be active, interested, and starting to develop a deeper understanding of mathematics. This approach creates a supportive learning environment and assists children in connecting mathematical concepts with everyday situations, strengthening their overall knowledge.

Incorporate numeracy into the children's daily activities.

This study highlights the importance of integrating numeracy into daily activities to support children's understanding of arithmetic. Through interviews with Informants, it was conveyed that they actively involve their children in various activities involving numbers. While cooking together, children are encouraged to measure ingredients such as flour or sugar and count the number of eggs used. Additionally, they often count objects around the house, such as toys or fruits. During shopping trips, children are prompted to count the number of items

purchased and understand the prices. Findings from the interviews with Informants provide a strong illustration of the significance of these practices in aiding children's understanding and application of mathematical concepts in real-life contexts. By involving children in everyday activities involving numbers, parents can help them develop arithmetic skills naturally and enjoyably.

"*In any case, I always try to incorporate the little ones into activities that involve numbers in their daily lives. For instance, our cooking exercise involves requesting them to help measure materials such as flour or sugar. We also often count objects around the house: toys or fruits are named, for instance. Furthermore, whenever we buy something, I advise them to keep count of the items bought and make them understand prices.*"

The interview showed that the informant was highly proactive in utilising everyday opportunities to engage their child in numeracy activities. While cooking together, they prepared meals, allowing the child to learn to measure ingredients and grasp quantity concepts. Furthermore, this practice extended to other daily activities, such as counting toys or fruits around the house and understanding the prices of items while shopping. Thus, this consistent practice not only aids the child in developing numeracy skills but also links mathematical concepts to relevant everyday situations, reinforcing their overall understanding.

The significance of integrating numeracy into daily activities is not confined to mathematical learning alone but also brings other benefits to child development. Through these practices, children can develop critical problem-solving, decision-making, and time-management skills. They also learn to relate mathematical concepts to everyday situations, strengthening their understanding of the relevance of mathematics in real life. Thus, integrating numeracy into daily activities conducted by parents can be one of the practical approaches to supporting children's mathematical learning. Parents need to recognise the importance of seizing daily opportunities to help their children reinforce their numeracy skills, thus preparing them to face future mathematical challenges with confidence and enhanced capabilities.

Educational Games

" Sometimes I focus on the games likely to interest the child, including 'Monopoly.' Thus, in this game, my child improves her skills in counting steps and number recognition, along with the primary ideas of arithmetic, including addition and subtraction. For instance, in the game 'Monopoly', for every round that is played, my child needs to count the dots on the dice and then determine how many steps to take, basing it on the total count. This assists him in learning his numbers and growing his ability to count. Also, my child gets to read cards like 'Chance' or 'Community Chest' and then perform actions that too often involve paying some money or receiving it from the bank. These situations help me apply addition and subtraction skills in a fun way, and these are the situations that my child experiences frequently."

During the observation, the Informant engaged his child in a Monopoly game. He began by patiently explaining the game's rules, ensuring his child understood each step. When it was time for his child to roll the dice, the Informant asked him to count the points on the dice and calculate the number of steps to be taken accordingly. This helped his child become familiar with numbers and reinforced basic counting skills. As the game progressed, his child landed on a square that required paying rent to another player. The Informant seized this opportunity to teach how to calculate the money to be paid. He asked his child to count the money physically, aiding his understanding of subtraction in a natural and enjoyable context. Furthermore, when his child drew a 'Chance' card that required receiving or paying money, the Informant taught how to calculate the total amount received or paid. He provided step-by-step guidance and ensured his child understood each part of the calculation. Through this approach, the Informant successfully turned mathematics learning into a fun and engaging activity for his child, who appeared enthusiastic and actively involved in the game.

"We also engage them in using digital applications based on mathematics, such as the 'ABCmouse'. This is an easy-to-use application that contains several fun

numeracy games that are to be played by children. For example, children playing with toys can find toys equal in quantity to a given number or solve other math problems. This application is precious as it helps my child understand new material in a more colourful approach to what he uses, which he enjoys tremendously."

The informant explained that they also utilise digital applications specifically designed for mathematics education, such as 'ABC mouse'. This application offers various interactive numeracy games tailored to children's developmental stages. For instance, there are games where children are asked to match numbers with corresponding amounts of objects or solve mathematical puzzles. The informant considers this application highly beneficial because their child can learn more visually and interactively, which they find particularly engaging for their child. The interview findings indicate that the informant acknowledges the usefulness of digital applications like 'ABC mouse' in supporting children's numeracy comprehension. This application provides interactive numeracy games designed to meet children's educational needs. Through visually and interactively presented games, children can engage in mathematics learning in a fun and captivating way. This approach creates a stimulating learning environment and helps children develop numeracy skills more effectively.

In this manner, board games like Monopoly and digital applications such as ABC mouse serve as entertainment tools and effective educational means to teach fundamental mathematical concepts to children. Children learn numbers and calculations through this method and develop critical thinking skills and problem-solving abilities in relevant and enjoyable contexts.

5. Discussion

The research findings highlight parents' three main strategies for facilitating numeracy understanding in 5—to 6-year-old children: mathematical discourse, numeracy integration in daily activities, and educational games. The theories and citations bolster these findings by offering empirical and theoretical foundations

supporting the importance of these strategies in early childhood numeracy development.

Firstly, the strategy of mathematical discourse is closely related to the theory that verbal interaction between parents and children while discussing numbers and mathematical concepts in everyday contexts can enrich children's learning experiences (Sitopu et al., 2024). This finding is consistent with previous research indicating that mathematical discourse within the family environment can significantly contribute to children's mathematical abilities (Del Río et al., 2021). By engaging children in everyday mathematical discourse, parents provide opportunities for children to sharpen their numeracy skills in accurate and relevant contexts.

Secondly, integrating numeracy into daily activities reflects the theory that mathematical experiences occurring within everyday life can help children build a more robust understanding of mathematics (Bernabini et al., 2020). Informants in the study consistently demonstrated this practice by utilising activities such as cooking, shopping, and playing at home as opportunities to involve children in numeracy. This is consistent with research by Susperreguy et al. (2020), which found that a numerate home environment, including everyday activities involving numbers, can predict children's early mathematical skill growth. By integrating mathematical concepts into daily activities, parents create a natural and supportive learning environment for children to develop mathematical understanding.

Lastly, educational games, whether traditional board games or digital applications are also supported by theory and empirical research. Vygotsky's theory of learning through play emphasises the importance of games in developing children's cognitive skills (Sitopu et al., 2024). The findings that educational games like 'Monopoly' allow children to hone numeracy skills, learn numbers, and understand essential addition and subtraction concepts align with this theory. Additionally, digital applications such as 'ABCmouse' reflect early childhood education's increasingly popular technology-based learning approach (Timoteo, 2024). Research by Zhang et al. (2020) supports the idea that using digital

applications specifically designed for mathematics can predict the development of children's mathematical skills from preschool to elementary school.

Overall, this research consistently supports the importance of parents' strategies in facilitating early childhood numeracy understanding. By engaging children in mathematical discourse, integrating numeracy into daily activities, and using educational games, parents make significant contributions to children's mathematical development. These findings have important implications in early childhood education, highlighting the crucial role of parents in shaping a supportive learning environment for children to develop their numeracy skills effectively.

6. Conclusion, Implications, and Recommendations

The findings show that informants employ three main strategies to enhance the numeracy understanding of 5-6-year-old children. Firstly, they actively involve children in mathematical conversations during everyday activities, such as walking or shopping, which assist children in grasping mathematical concepts in real-life contexts. Secondly, they integrate numeracy into daily activities, such as cooking together or shopping, allowing children to naturally and enjoyably develop counting skills. Finally, they utilise educational games in board game form like 'Monopoly' or digital applications like 'ABCmouse' to provide children with interactive and enjoyable mathematical learning experiences.

As for the implications, interview results and observations indicate that these practices are effective in helping children strengthen their understanding of basic mathematical concepts. Parents can help children develop counting skills naturally and joyfully by engaging them in everyday activities involving numbers. Integrating numeracy into daily activities also enables children to associate mathematical concepts with real-life situations, reinforcing their overall understanding. Furthermore, using educational games such as 'Monopoly' or 'ABCmouse' helps children engage in mathematical learning in a fun and appealing manner while also developing critical thinking and problem-solving skills.

Therefore, recommendations for parents and educators are to continue promoting the use of these strategies in supporting early childhood mathematical

learning. Parents must know the importance of seizing everyday opportunities to strengthen children's counting skills. In contrast, educators need to integrate these practices into preschool education curricula. Additionally, it is crucial to continue developing and providing resources that support implementing these strategies, such as digital educational applications specifically designed for young children. With a holistic and integrated approach, we can lay a solid mathematical foundation for children from an early age, preparing them for success in both mathematical learning and their everyday lives in the future.

7. References

Bernabini, L., Tobia, V., Guarini, A., & Bonifacci, P. (2020). Predictors of children's early numeracy: Environmental variables, intergenerational pathways, and children's cognitive, linguistic, and non-symbolic number skills. Frontiers in Psychology, 11, 505065.

DePascale, M., Prather, R., & Ramani, G. B. (2021). Parent and child spontaneously focus on numbers, mathematical abilities, and mathematical talk during play activities. Cognitive Development, p. 59, 101076.

Del Río, M. F., Susperreguy, M. I., Strasser, K., Cvencek, D., Iturra, C., Gallardo, I., & Meltzoff, A. N. (2021). Early sources of children's math achievement in Chile: The role of parental beliefs and feelings about math. Early Education and Development, 32(5), 637-652.

Dini, J. P. A. U. (2021). The role of student's parent in shaping Home Learning Environment (HLE) for early childhood. Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini, 5(2), 1512-1535.

Eason, S. H., & Ramani, G. B. (2020). Parent–child math talk about fractions during formal learning and guided play activities. Child development, 91(2), 546-562.

Girard, C., Bastelica, T., Léone, J., Epinat-Duclos, J., Longo, L., & Prado, J. (2021). The relation between home numeracy practices and a variety of math skills in elementary school children. PLoS One, 16(9), e0255400.

Litkowski, E. C., Duncan, R. J., Logan, J. A., & Purpura, D. J. (2020). When do preschoolers learn specific mathematics skills? Mapping the development of early numeracy knowledge. Journal of experimental child psychology, 195, 104846.

Napoli, A. R., Korucu, I., Lin, J., Schmitt, S. A., & Purpura, D. J. (2021, March). Characteristics related to parent-child literacy and numeracy practices in preschool. In Frontiers in Education (Vol. 6, p. 535832). Frontiers Media SA.

Sitopu, J. W., Khairani, M., Roza, M., Judijanto, L., & Aslan, A. (2024). The Importance Of Integrating Mathematical Literacy In The Primary Education Curriculum: A Literature Review. International Journal of Teaching and Learning, 2(1), 121-134.

Susperreguy, M. I., Di Lonardo Burr, S., Xu, C., Douglas, H., & LeFevre, J. A. (2020). Children's home numeracy environment predicts growth of their early mathematical skills in kindergarten. Child development, 91(5), 1663-1680.

Timoteo, A. V. (2024). Medium of instructions and its relationship on pupils' learning outcomes in Mathematics. World Journal of Advanced Research and Reviews, 22(1), 1035-1060.

Zhang, X., Hu, B. Y., Zou, X., & Ren, L. (2020). Parent–child number application activities predict children's math trajectories from preschool to primary school. Journal of Educational Psychology, 112(8), 1521.

Zippert, E. L., & Rittle-Johnson, B. (2020). The home math environment: More than numeracy. Early Childhood Research Quarterly, 50, 4-15.