# THE RELATIONSHIP BETWEEN PARENTAL BACKGROUND AND PRESCHOOLERS' NUMERACY SKILLS IN OGBA/EGBEMA/NDONI LOCAL GOVERNMENT AREA OF RIVERS STATE

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## Abstract

The parental background of preschoolers serves as a compass to the preschoolers' numeracy skills. This study examined the relationship between parental background and preschoolers' numeracy skills in Ogba/Egbema/Ndoni Local Government Area of Rivers State. It made use of two research questions and corresponding hypotheses. Thepopulationforthisstudycomprisedallthe parents of the Nursery Three (Transition class) in ECCDE CentresinOgba/Egbema/Ndoni Local Government Area, summing up to 3,760. The sample for the study was 376 pupils from the five selected ECCDE centres in the said Local Government Area. The Sample was obtained through random sampling technique. The instrument used for data collection was a checklist designed by the researcher entitled, "The Relationship between Parental Background and Preschoolers' Numeracy Skills Checklist"(RPBPNSC) which was administered and tested using mean and standard deviation. Simple random sampling technique was used to select the sample size. The study implored a correlational design. It was face and content validated by three experts. It has a reliability coefficient of 0.52. The findings indicated that parental educational and income levels related to the preschoolers' numeracy skills. Therefore, it was recommended among others that parents, should been courage to engage in numeracy-related activities with their children while the care givers should provide targeted supports and resources for preschoolers from disadvantaged backgrounds to enhance their numeracy skills.

**Keywords:** Parental Background, Parental Education, Parental Income, Preschoolers, Numeracy Skills.

## Introduction

The parental background of preschoolers plays a decisive role in shaping their numeracy skills experiences and outcomes. Parental background encompasses various dimensions, including socioeconomic status, parental education level, income level, and family size, all of which significantly influence the teaching-learning process and pupils' learning performance (Kim & Kim, 2020). In contemporary society, where learning is increasingly modernized with both basic and advanced instructional materials, the impact of parental background on pupils' numeracy skills cannot be overemphasized.Research indicates that parental background can affect pupils in both positive and

negative ways. Pupils from low socioeconomic backgrounds often face challenges such as nutritional deficiencies, inadequate numeracy materials, and limited access to educational resources, which can hinder their numeracy skills (Bradley & Corwyn, 2022). Conversely, pupils from higher socioeconomic backgrounds tend to have better access to educational resources, including tutoring services and extracurricular activities, which can enhance their academic success (Davis-Kean, 2022). The first factor to be considered here is the parental level of education.

The educational level of parents is a critical component of socioeconomic status that profoundly influences a child's academic performance. Parents with higher levels of education are more likely to engage actively in their child's educational development, set high academic expectations, and provide a supportive learning environment (Henderson & Berla, 2020). Studies have shown that parental education can positively impact pupils' academic performance by providing them with additional learning support and resources (Musarat et al., 2022). Parental Level of Education and Pupils' Numeracy Skills. Parental level of education can significantly impact pupils' numeracy skills in several ways. Parents with higher education levels may have better access to educational resources, such as math games, books, and online materials, which can support their child's numeracy development (Susperreguy et al., 2020). Additionally, educated parents are more likely to be involved in their child's education, providing guidance and support with math homework, and encouraging their child to practice numeracy skills (Zippert et al., 2020). They may also engage in more math-related activities with their children, such as counting, basic arithmetic operations, and problem-solving, which can enhance their child's numerical proficiency (Klibanoff et al., 2006). Furthermore, parents with higher education levels may create a more conducive learning environment for their child, providing a quiet and dedicated space for studying and practicing math (LeFevre et al., 2009). Finally, educated parents may have higher expectations for their child's academic achievement and provide more support and encouragement to help their child meet those expectations (Purpura et al., 2022). Parental level of education is a significant predictor of pupils' numeracy skills, children of highly educated parents tend to perform better in math (Susperreguy et al., 2020; Zhang et al., 2022). This is because educated parents are better equipped to provide their children with the necessary support and resources to develop their numeracy skills. Contrarily, Susperreguy et al., (2020) explained that parents with lower levels of education may struggle to provide effective support and guidance for their children's numeracy skills, potentially hindering the children's progress.

Parental educational level can be measured using various indices, which can be broadly classified into three categories - Educational Attainment: This index assesses the highest level of formal education completed by parents, such as primary, secondary, or tertiary education (Bradley & Corwyn, 2020). Educational attainment is a critical predictor of parental involvement in children's education and their ability to support their children's academic development. Further more, it has Years of Education: This measures the total number of years of formal education completed by parents, providing a quantitative indicator of their educational level (Hartas, 2022). Research has shown that parents with more years of education tend to have higher expectations for their children's academic achievement and provide more support for their educational development. Finally, there is Parental Literacy and Skills Level: This index assesses parents' literacy and numeracy skills, which can impact their ability to support their children's


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educational development (Purpura et al., 2022). Parents with strong literacy and numeracy skills are better equipped to engage in activities that promote their children's cognitive and academic development. Another variable that comes to mind is the parental level of income.
Parentallevelofincomereferstotheannualhouseholdincomeorsocioeconomicstatusofparentsorguardians, whichcansignificantlyinfluencetheresourcesandopportunitiesavailabletotheirchildren(Bradley&Corwyn, 2020).This construct encompasses not only the financial means of parents but also their ability to provide a supportive and stimulating environment that fosters cognitive and academic development (Hartas, 2022). It is a critical predictor of children's educational outcomes, including their numeracy skills (Zhang et al., 2022). Parents with higher income levels tend to have greater access to educational resources, such as private tutors, online learning materials, and extracurricular activities, which can enhance their children's math performance and overall academic achievement (Purpura et al., 2022). Conversely, parents with lower income levels may face significant challenges in providing their children with the necessary resources and support to develop their numeracy skills, potentially exacerbating existing achievement gaps (Susperreguy et al., 2020). Parental level of income refers to the amount of money earned by parents or guardians, typically measured in terms of annual household income or socioeconomic status. It can impact the resources and opportunities available to their children, including access to quality education, educational materials, and extracurricular activities. On the other hand, Zhangetal(2022) asserted that lower-income parents may have limited access to resources and materials that support numeracy skills, such as educational games, books, and technology. Parental level of income can be categorized.

**Categories of parental levels of income**:
Low-income: This refers to limited financial resources, potentially impacting access to educational resources and opportunities. It also has the middle-income. In this level, there are moderate financial resources, allowing for some access to educational resources and opportunities. The last level the high - income which entails significant financial resources, providing ample access to educational resources and opportunities. Parental level of income can influence various aspects of a child's life, including their educational outcomes, health, and overall well-being. In fact, parental level of income is a critical predictor of children's educational outcomes, including their numeracy skills (Zhang et al., 2022). Parents with higher income levels tend to have greater access to educational resources, such as private tutors, online learning materials, and extracurricular activities, which can enhance their children's math performance and overall numeracy skills (Purpura et al., 2022). On the other hand, access to educational resources may not be easy for lower income parents.
Parents with lower income levels conversely, may face significant challenges in providing their children with the necessary resources and support to develop their numeracy skills, potentially exacerbating existing achievement gaps (Susperreguy et al., 2020). Therefore, it is essential to consider the impact of parental level of income on children's educational outcomes and to develop targeted interventions that support children from disadvantaged backgrounds. Impact of Lower Parental Income on Children's Numeracy Skills. Parents with lower income levels, can have a profound impact on their children's numeracy skills. Research has consistently shown that parents with higher income levels are better

equipped to provide their children with access to quality educational resources, including math-related activities and materials, which can significantly enhance their numerical proficiency and overall math performance (Susperreguy et al., 2020). Conversely, parents with lower income levels may face significant challenges in providing their children with the necessary resources and support, potentially exacerbating existing achievement gaps (Zhang et al., 2022). The impact of lower parental income on children's numeracy skills can be attributed to various factors, including limited access to educational resources, parental stress and anxiety, and reduced parental involvement (Hartas, 2022). Nevertheless, according to Purpuraetal. (2022) parents can leverage free online resources, incorporate numeracy skills into daily activities, and foster a positive attitude towards number work to support the numeracy skills of the preschoolers.

**Preschoolers: A Critical Stage of Development**

Preschoolers refer to children between the ages of 3 and 5 years old, who are in the pre-primary stage of education (Kagan & Kauerz, 2020). During this period, children undergo significant cognitive, social, and emotional development, laying the foundation for future academic success and lifelong learning. Preschoolers are naturally curious and begin to explore their environment, developing essential skills such as numeracy, literacy, and problem-solving. High-quality preschool education can have a lasting impact on children's cognitive and socio-emotional development, particularly for disadvantaged children (Weiland & Yoshikawa, 2022). Preschool programs that focus on play-based learning, social-emotional development, and parental involvement can foster a strong foundation for future success of the Preschoolers' Numeracy Skills.

Numeracy Skills is a foundation for Mathematical Literacy. Numeracy skills refer to the ability to understand, apply, and manipulate mathematical concepts in everyday life (Organisation for Economic Co-operation and Development, 2020). These skills encompass a range of mathematical abilities, including number sense, arithmetic operations, and problem-solving. Numeracy skills are essential for individuals to navigate the world effectively, making informed decisions about personal finance, health, and other aspects of life. The skills are a strong predictor of later mathematical achievement and overall academic success (Purpura et al., 2022). Developing numeracy skills in early childhood is critical, as it lays the foundation for more advanced mathematical concepts and problem-solving abilities. Effective numeracy instruction should focus on developing a deep understanding of mathematical concepts, rather than just procedural fluency (Susperreguy et al., 2020). Developing numeracy skills in early childhood is critical because it lays the foundation for future mathematical understanding and academic achievement. Research has consistently shown that early numeracy skills are a strong predictor of later mathematical achievement, and that children who struggle with numeracy in early childhood are more likely to experience persistent math difficulties (Purpura et al., 2022; Zhang et al., 2022). Furthermore, early numeracy skills are also linked to broader cognitive and socio-emotional outcomes, including problem-solving, critical thinking, and confidence (Susperreguy et al., 2020) beyond ordinary theory.

Theoretical base of this study is anchored on the Social Cognitive

Family Investment Theories. First on the list is the Social Cognitive Theory.

**Social Cognitive Theory**

The Social Cognitive Theory (Bandura, 1986) suggests that parental background influences children's numeracy skills through observational learning and social interaction. Parents with a strong educational background can provide a supportive learning environment, model positive attitudes towards math, and engage in activities that promote numeracy development. This theory is significant to the present study because it highlights the importance of parental involvement in shaping children's numeracy skills. Social Cognitive Theory, finding that parents' math anxiety and attitudes towards math can impact their children's math achievement (Susperreguy et al., 2020).

**Family Investment Theory**

The Family Investment Theory (Conger & Donnellan, 2007) posits that parents invest resources, including time, money, and energy, in their children's education to promote their cognitive and academic development. Parents with a strong educational background and socioeconomic status are more likely to invest in resources that support numeracy development, such as math games, books, and tutoring. This theory is significant to the present study because it highlights the role of parental resources in shaping children's numeracy skills. Family Investment Theory, finding that parents' educational level and socioeconomic status are significant predictors of children's numeracy skills (Zhang et al., 2022). By understanding the role of parental resources in shaping children's numeracy skills, educators

Significance of both SocialCognitive and Family Investment Theories:

**Social Cognitive Theory**

- Highlights the role of parental education in shaping children's numeracy skills through observational learning and social interaction.
- Parents' educational level influences their attitudes and behaviors towards math, impacting children's numeracy development.

**Family Investment Theory**

- Emphasizes the impact of parental income and education on investments in resources that support numeracy development.
- Parents with higher education and income levels can provide more resources, such as educational materials and activities, to promote children's numeracy skills.

**Statement of the Problem**

The development of numeracy skills in preschoolers is a critical foundation for future academic achievement, with research showing that early numeracy skills are strongly predictive of later mathematical proficiency. However, despite its importance, there is evidence to suggest that many preschoolers struggle with numeracy skills, and that parental background may play a significant role in shaping these skills. Specifically, parents' educational level and income have been identified as potential predictors of children's numeracy development, yet the mechanisms by which these factors influence numeracy skills are not well understood.



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The significance of this problem lies in the long-term consequences of early numeracy skills on future academic achievement and socioeconomic outcomes. Children who struggle with numeracy skills in early childhood are more likely to experience difficulties in mathematics and other subjects later on, which can limit their educational and career opportunities. Furthermore, the development of numeracy skills is closely tied to broader cognitive and socio-emotional outcomes, including problem-solving, critical thinking, and confidence.

Despite the importance of parental background in shaping preschoolers' numeracy skills, there is a notable gap in existing research on the specific relationship between parental education and income levels and preschoolers' numeracy skills in diverse contexts. While previous studies have examined the relationship between parental background and the preschoolers' numeracy skills, few have specifically investigated the mechanisms by which parental background relates to numeracy skills in preschoolers. This study aims to fill this gap by investigating the relationship between parental background and the preschoolers' skills, specifically parental education and income levels, preschoolers' numeracy skills, with a view to informing targeted remedies and support strategies for parents and educators.

**Purpose of the Study**

The purpose of the study is to determinethe relationship between Parental Background and the Preschoolers' Numeracy Skills.Specifically, the objectives are stated as follows:

4. To examine the relationship between parental level of education and preschoolers' numeracy skills.
5. To investigate if parents' income level relates to the preschoolers' numeracy skills.

**Research Questions**

The following research questions guided the study:

1. To what extent does parental level of education relate to thepreschoolers' numeracy skills?
2. To what extent does parental level of income relate to the preschoolers' numeracy skills?

**Hypotheses**

The study was guided by the following hypotheses:

1. There is no significant relationship between parental level of education and the pre-schoolers' numeracy skills.
2. There is no significant relationship between parental level of income and the pre-schoolers' numeracy skills

**Methods**

The study employed a correlation survey design. This design is suitable for this study since the researcher intends to survey and examine the relationship between parental levels of education and income on pre-schoolers' numeracy skills. The study was conducted in Ogba/Egbema/Ndoni Local Government Area. Ogba/Egbema/Ndoni Local Government Area is located in Rivers State, South-South Nigeria, within the geographical coordinates of 5°20' 18.00"N latitude and 6°39'11.99"E longitude. It covers an area of approximately 1,621 square kilometers. The estimated population of Ogba/Egbema/Ndoni is around 283,294 people, according to the recent census, with a projected population of 407,400 in 2022. The

headquarters of Ogba/Egbema/Ndoni Local Government Area is Omoku. Ogba/Egbema/Ndoni is bounded by Imo State to the east,

Delta State: to the west, Bayelsa State: to the south west, Anambra State: to the north, Ahoadaes: to the south east, Ahoada East: to the south and Emohua Local Government Areas to the south. The area has significant oil and gas exploration activities, with companies like, AGIP, Total Energies and Shell/NPDC. The area's connection to Onitsha World Market via River Niger suggests accessibility by water ways and potentially by road through neighboring areas. Unfortunately, there are no higher institutions within Ndoni itself. However, neighboring areas have institutions that serve the community like Federal College of Education FCE (T), Omoku. The main occupation of the people in Ogba/Egbema/Ndoni includes farming-the area has vastarable and fertile land suitable for agriculture; Oil and Gas Exploration-the area is home to significant oil and gas reserves. Business activities in the area revolve around Oil and Gas Exploration with several producing fields operated by major oil companies; Agriculture: Leveraging the fertile land for farming and related activities; Trading: With access to Onitsha World Market and trade is likely an important economic activity. The artisans of Ogba/Egbema/Ndoni Local Government Area in Rivers State, Nigeria, engage in various traditional crafts and skills. These artisanal activities showcase the community's creativity and skill, contributing to their cultural heritage and economic well-being. When parents attain to parental literacy and skills level, their children, being the pre-schoolers would equally attain corresponding heights. In Ogba/Egbema/Ndoni, parents and educators in collaboration with the companies can foster community engagement, encouraging them to promote numeracy skills among the pre-schoolers.

The population for this study comprised all the pupils in all the parents in ECCDE Centres in Ogba/Egbema/Ndoni Local Government Area, summing upto 3,760. The sample for the study was 376 pupils from the five selected ECCDE centres in the said Local Government Area. The Sample was obtained through random sampling technique. On the spot the instrument used for data collection was a checklist entitled, "THE RELATIONSHIP BETWEEN PARENTAL BACKGROUND AND PRESCHOOLERS" NUMERACY SKILLS CHECKLIST" (RPBPNSC). The instrument was used to escavate information from the respondents and it was made up of twenty items. A researcher-made Checklist was designed and structured in four point scale of Strongly Agreed (SA), Agree (A), Disagree (D) and Strongly Disagree (SD).

The instrument used was scored as follows:

| Rank | Point |
|---|---|
| Strongly Agree | SA=4 |
| Agree | A=3 |
| Disagree | D=2 |
| Strongly Disagree | SD=1 |

The instrument, "THE RELATIONSHIP BETWEEN PARENTAL BACKGROUND AND PRESCHOOLERS" NUMERACY SKILLS CHECKLIST" (RPBPNSC) which was researcher - made implored. It was face and content validated by three experts in the Department of Measurement and Evaluation, Federal College of Education (Technical), Omoku. A test re-test method of testing reliability was used to test the reliability of the instrument. In order to test the reliability, fifty copies of the

instrument were administered on a different set of respondents with similar characteristics in another local government area and the scores were recorded. The instrument was administered on the main group after two weeks and the scores of the two tests were correlated. The correlation co-efficient of 0.52 obtained showed that the test was reliable. The instrument was administered by the researcher and two research assistants on the respondents in their various centres, was collected and was administered on the subjects and collected on the spot for two weeks to avoid misplacement. All the completed questionnaires were used for data analysis. Data collected was analysed by the use of Mean (X) statistics. Specifically, correlations statistics was used to test the hypotheses formulated while mean count and standard deviation were used to answer the research questions. This was subjected to computerization through the use of Statistical Packages for Social Sciences (SPSS).

From the rating scale of

SA = 4
A = 3
D = 2
SD = 1
$\sum X$ = 4+3+2+1 = 10
N = 4 (Size of the rating scale)
Therefore x = $\sum X = \frac{10}{4} = 2.5$

Any Mean (X) response equal to or more than 2.5 was accepted as a factor. Any Mean (X) response less than 2.5 was rejected as a factor.

**Presentation of Results.**

**Research Questions**

Research Question One: 1. To what extent does parental level of education relate to the pre-schoolers' numeracy skills?

Table 2: Mean rating on the relationship between parental level of education and the pre-schoolers' numeracy skills.

| S/N | ITEM | SA | A | D | SD | N | X | REMARK |
|---|---|---|---|---|---|---|---|---|
| 1 | Talk with your child regularly | 75<br>260 | 80<br>220 | 130<br>263 | 106<br>100 | 353 | 2.2 | Rejected |
| 2 | Count objects together with your child. | 155<br>595 | 110<br>334 | 60<br>135 | 50<br>50 | 353 | 2.7 | Accepted |
| 3 | You ask your child to count his books. | 186<br>754 | 116<br>352 | 40<br>83 | 31<br>31 | 353 | 3.1 | Accepted |
| 4 | You engage your child in playing number games. | 163<br>658 | 120<br>364 | 94<br>191 | 87<br>87 | 353 | 3.2 | Accepted |
| 5 | You shop with your child. | 94<br>386 | 97<br>291 | 94<br>191 | 86<br>90 | 353 | 2.6 | Accepted |

Table2 shows the relationship between the level of education and the pre-schoolers' numeracy skills in Ogba/Egbema/Ndoni Local Government Area of Rivers State. Analysis of the table shows five factors (items) of parental level of education on the pre-schoolers' numeracy skills with a mean ranging from



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2.2–3.2 respectively. This shows that they were all accepted and agree that parental level of education has relationship with the pre-schoolers' numeracy skills; talking with the child, counting objects together with the child, asking the child to count his books engaging your child in playing number games and shopping with the child apart from item one on the table, whose indication contrary and was not accepted.

Research Question Two: To what extent does parental level of income relate to the pre-schoolers' numeracy skills?

Table 2: Mean rating on the extent to which parental level of income relate to the pre-schoolers' numeracy skills.

| S/N | ITEM | SA | A | D | SD | N | X | REMARK |
|---|---|---|---|---|---|---|---|---|
| **6** | I often buy counting objects for my child. | 179<br>692 | 132<br>388 | 49<br>108 | 20<br>16 | 403 | 3.4 | Accepted |
| **7** | I provide atmosphere that promote putting together | 136<br>554 | 118<br>334 | 82<br>155 | 67<br>55 | 405 | 2.7 | Accepted |
| **8** | I expose my child to sharing things. | 114<br>432 | 96<br>292 | 104<br>194 | 72<br>72 | 405 | 2.7 | Accepted |
| **9** | Provide materials that tailor my child to calculations. | 264<br>669 | 146<br>452 | 44<br>87 | 25<br>6 | 405 | 3.5 | Accepted |
| **10** | You buy stop-watches to regulate your child's activities. | 216<br>942 | 144<br>434 | 24<br>34 | 6<br>6 | 379 | 3.5 | Accepted |

Table 2 above shows the mean range of X from 2.5 –3.4. The first item on the checklist was accepted, which indicates that parents who often buy counting objects for their children afford the children to stand a better grasp of the necessity of numeracy skills. The second item was also accepted at a tabulated mean of 2.7 shows that parental level of income is related to pre-schoolers' numeracy skills. Parental level of income is associated to operations of division (sharing) for numeracy skills as it was equally accepted at 2.7. At 3.5 tabulated mean, item 8 was accepted signifying that children whose parental level of income is high have the abilities to grasp numeracy skills. Furthermore, at 3.5 tabulated mean, item 9 was likewise accepted showing that parents who buy materials for calculate give the children the opportunity to stimulate their numeracy skills effectively and efficiently. The last item was also accepted at a tabulated mean of 2.5 shows that parental level of income is related to pre-schoolers' numeracy skills as the children start using stop watches early which naturally usher them into numeracy skills.

**Hypotheses Testing**

There were two hypotheses set to guide the study. Pearson Product-Moment Correlation Statistic was used to test all the hypotheses at 0.05 level of significance.

Research Hypothesis 1: There is no significant relationship between parental level of education and the pre-schoolers' numeracy skills.

Table 6: Mean, SD and t-test showing the relationship between parental level of education and the pre-schoolers' numeracy skills.

| S/N | ITEMS | X | S.D | T-CAL |
|---|---|---|---|---|
| | REMARK | | | |
| 1 | Parental level of income and. | 2.9. | 0.46. | 3.68. |
| | Accepted | | | |

Pre-schoolers' Numeracy Skills
Significant P< .05

The standard deviation is 0.46, indicating a moderate spread of responses around the mean. The t-statisticis 3.68, which is greater than the critical t-value of 1.96 for a two-tailed test with 375 degrees of freedom at the 0.05 level of significance. This means that the null hypothesis is rejected. The data provides statistically significant evidence that parental level of education relates to the pre-schoolers' numeracy skills.

Research Hypothesis 2: There is no significant relationship between parental level of education and the pre-schoolers' numeracy skills.

| S/N | ITEMS | X. | S.D | T-CAL | REMARK |
|---|---|---|---|---|---|
| 1. | Parental level of income | 3.6. | 0.66. | 3.72. | Accepted |
| | and pre-schoolers' numeracy skills. | | | | |

Significant P<.05

The standard deviation is 0.66, indicating a moderate spread of responses around the mean. The t-statistic is 3.72, which is greater than the critical t-value of 1.96 for a two-tailed test with 375 degrees of freedom at the 0.05 level of significance. This means that the null hypothesis rejected. The data provides statistically significant evidence that parental level of income relates to the pre-schoolers' numeracy skills.

**Discussion of Findings**

Table 2 shows the extent to which parental level of education relates to the pre-schoolers' Numeracy Skills. It was evident from the findings that the parental level of education plays a significant role in preschoolers' Numeracy Skills; talking with the child regularly, counting objects with the child, asking the child to count his books, engaging the child in playing number games and shopping with the child channel the child to numeracy skills. This is in line with the findings of Bradley & Corwyn, Hartas (2022) and Purpura et al. (2022). However, the result is not in consonance with the study of Susperreguy Et.al.,(2020) who explained that parents with lower levels of education may struggle to provide effective support and guidance for their children's numeracy skills, potentially hindering the children's progress.

Table 3 shows how parental level of income relates to the pre-schoolers' numeracy skills. It was evident from the findings that parents with higher levels of income have better opportunities of buying learning materials that energize their children in numeracy skills. This findings is line with the findings of Henderson & Berla, 2020; Zippert et al., 2020 and Musarat et al., 2022) who opened that parental level of income encourages pre-schoolers' numeracy skills since it helps parents provide materials that can enhance numeracy skills. However, it negates the finding of Zhang et al (2022) who obliged that

lower-income parents may have limited access to resources and materials that support numeracy skills, such as educational games, books, and technology.

## Conclusion

The study concludes that parental background, particularly parental level of education and income, plays a significant role in shaping pre-schoolers' numeracy skills. Parents with higher education levels and income are better equipped to provide resources and support that promote numeracy skills, while those with lower education levels and income may face challenges in providing necessary support. The study stated the need for targeted remedies and support strategies to enhance pre-schoolers' numeracy skills, particularly for those from disadvantaged backgrounds.

## Recommendations

Based on the study's findings, the following recommendations are made:

1. Parents should be encouraged to engage in numeracy-related activities with their children, such as counting objects and playing number games.
2. Caregivers should provide targeted support and resources for pre-schoolers from disadvantaged backgrounds to enhance their numeracy skills.
3. Policymakers should develop and implement policies that promote equal access to quality education and resources for all pre-schoolers, regardless of their parental background.
4. Parents with lower education levels and income should be provided with resources and support to help them promote their children's numeracy skills, such as free online resources and numeracy materials.
5. Further research should be conducted to explore the mechanisms by which parental background influences pre-schoolers' numeracy skills and to develop effective interventions to support pre-schoolers' numeracy development.

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