

Closing the Literacy Gap: A Descriptive Analysis of the Influence of Gender Disparity on Learners' Early Literacy Skills Development in Lagos State

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Abstract: Gender inequality is a persistent form of discrimination where one group is disadvantaged based on gender. This disadvantage manifests itself differently depending on factors like race, culture, political climate, national context, and economic situation. Multiple explanations have been offered for gender differences in literacy skill development but little has been done on analyzing how gender disparity plays out in developing early literacy skills (reading, writing, phonemic awareness) in pre-primary school children in Lagos. Researchers propose two reasons for gender differences in literacy: biology and social-cultural factors. Biological explanations focus on brain development, suggesting girls develop reading skills earlier. Social-cultural explanations highlight how societal norms and expectations may favor girls, putting boys at a disadvantage. Focus. Hence, the study investigated the influence of gender inequality on pre – primary school children literacy skills development in Ojo Local Government Area, Lagos State. Descriptive survey research design was adopted for the study. 100 pre-primary school teachers were involved in the study. A self-designed instrument was used for data collection titled 'Influence of Gender Inequality on Literacy Skill Development in Children Questionnaire (IGILSDCQ)'. The instrument was validated and tested for reliability. The reliability index for IGILSDCQ ($\alpha = 0.79$). Five research questions were answered using descriptive (frequency count, simple percentage, mean and standard deviation). The findings showed that that gender inequality to some extent influence children phonemic awareness (WA=1.76), the extent to which gender inequality influence children awareness of print is high (WA=2.8), gender inequality to some extent influence children vocabulary development (WA = 2.4), the extent to which gender inequality influence children speaking skill development is high (WA = 2.5) and lastly, the extent to which gender inequality influence children comprehension ability is high (WA = 2.5). It was recommended among others that effort by the school administrators is necessary in the provision of reading materials and literacy skill development packages that are both male-oriented and female-oriented.

Keywords: Pre-primary, Literacy Skill Development, Phonemic Awareness, Awareness of Print, Vocabulary Development

Introduction

Globalization is transforming every aspect of our lives. Yet, amidst this change, a critical issue persists: gender inequality. It's well-established that all forms of inequality, from income to education, hinder economic development and well-being. However, gender inequality seems particularly detrimental, with biases against women disproportionately impacting progress (African Development Bank, 2002; Evans, 2011). While gender inequality and its impact on literacy development is a relevant topic, Rasinski (2003) argues that the term itself lacks a precise definition, leading to confusion. Regardless of definition, gender equality in pre-primary education is a fundamental human right and essential for a just society. However, achieving this equality challenges educators and educational systems to rethink their practices and perspectives.

Generally, behaviors and characteristics associated with males are considered masculine, while those associated with females are considered feminine. These encompass physical attributes like body shape and voice, as well as acquired traits like clothing and emotional expression (Kuhn & Stahl, 2003). Sex, on the other hand, refers to the biological differences between men and women. Sociologists use gender to not only describe these biological differences but also how societies construct masculinity and femininity, and how power is distributed between the sexes. Stromswold (2001) explains that the GII, introduced by the UNDP in 2010, measures gender disparity. It's a composite index that reflects the loss in achievement a country experiences due to gender inequality. The GII considers three dimensions: reproductive health, empowerment, and labor market participation.

This replaced earlier indices, the Gender Development Index (GDI) and the Gender Empowerment Measure (GEM), which had limitations. Pitts (2002) highlights the GII's three key dimensions, emphasizing that they are captured together to account for their interconnectedness. The UNDP points out that development level isn't a factor – a less developed country can have a good GII if gender inequality is low. Importantly, the GII recognizes that inequality in one dimension can affect others. This "association-sensitive" approach ensures that high achievement in one area doesn't mask low achievement in another. Gender differences in reading attainment is a well-documented phenomenon, with several recent reports indicating that boys' underachievement in reading, relative to girls, is an issue of concern (López, 2006), or that they mainly occur in low socioeconomic groups. However, evidence from international reports, such as the 2001, 2006 and 2011 PIRLS (Progress in International Reading and Literacy Study) and the 2003, 2006 and 2012 PISA (Program for International Student Assessment) studies, overwhelmingly point to a female

advantage in various aspects of reading ability, particularly in young and adolescent learners (Lane, 2007). Gender differences are typically reported in reading comprehension (McAfee, 2004), reading motivation, attitude and self-efficacy (Kidd, 2008). Furthermore, boys often have weaker linguistic skills (associated with reading) than girls (Burman, Bitan & Booth 2008). It seems fair to conclude that a gender gap in reading achievement exists globally, regardless of learning environment or socio-economic status – a situation which has been referred to as the ‘boy crisis’ and which has been debated extensively (Pikulski, 2005).

Furthermore, Phonological awareness skills are considered essential components that contribute in acquiring and developing reading in children. Research studies indicate that phonological awareness is an important indicator of literacy skills in school. The purpose of this study was to examine the effect of both gender differences and age level on phonological awareness skills for preschool children. The study adapted some of the tests included in the Phonological Awareness Test-Second Edition (PAT-2): rhyme discrimination, rhyme production, sentence segmentation, syllables segmentation, phone segmentation, isolation of first sound, isolation of final sound, isolation of middle sound, deletion of compound words, deletion of phonemes, substitution with cubes, blending of syllables, and blending of phonemes. The study also used two subtests from the Comprehensive Test of Phonological Processing (CTOPP-2): matching of the first sound and matching of the last sound. The results of the study showed no significant main effect of gender in phonological awareness tests. The results also showed a significant main effect of age level in favour of KG2 in most of the phonological awareness skills except for syllable blending. Previous research explored the impact of kindergarten print awareness on first-grade reading. This study's findings regarding the effectiveness of "immersion in print" compared to "immersion in print + teacher-led instruction" were mixed.

While the post-test CAPT scores (likely measuring print concept knowledge) were higher in the "immersion + teacher-led instruction" group, this didn't necessarily translate to better reading skills. Scores on reading readiness and word reading tests (WLAT, CAT) didn't show a clear benefit from teacher-led instruction compared to "immersion in print" alone. Findings of Research on Teacher-Led Instruction suggest that increased knowledge of print concepts (measured by CAPT) might not directly translate to improved reading skills (measured by WLAT and CAT). It's possible that other factors besides print concept knowledge are crucial for reading development. Research findings confirms gender gap for L1 bilingual acquisition, which was also reported for monolingual (Eriksson, 2012) and L2 acquisition (Rosén, 2001). Interestingly, gender was also correlated with the input situation in our data: being a girl is correlated with a later L2 AoO and a higher L1 use with the family and other people. Also, some other study explored gender differences in emerging language skills in 13,783 European children from 10 non-English language communities. It was based on a synthesis of published data assessed with adapted versions of the MacArthur-Bates Communicative Development Inventories (CDIs) from age 0.08 to 2.06. The results showed that girls are slightly ahead of boys in early communicative gestures, in productive vocabulary, and in combining words. The difference increased with age. Boys were not found to be more variable than girls. Despite extensive variation in language skills between language communities, the difference between girls and boys ability to develop early literacy skills remained enormous.

Research Questions

Research Question 1: What is the influence of gender inequality on learners' phonemic awareness?

Research Question 2: What is the influence of gender inequality on learners' Awareness of Print?

Research Question 3: What is the influence of gender inequality on learners' Vocabulary development of children?

Research Question 4: What is the influence of gender inequality on learners' spelling development?

Research Question 5: What is the influence of gender inequality on learners' comprehension ability in children?

METHODOLOGY

This study adopted a descriptive survey research design. This research design uses instruments such as questionnaires and interviews to gather information from groups of individuals. Surveys permit the researcher to summarize the characteristics of different groups or to measure their attitudes and opinions toward some issue (Donald, 2010). The population for the study is made up of all pre-primary class teachers in public and private schools in Ojoo Local Government Area, Lagos State. Simple random sampling technique was adopted for the study. Simple random sampling technique was adopted to select Ojoo Local government area. Also, simple random sampling was adopted to select 100 pre-primary class teachers in the local government. Two pre-primary class teachers were randomly selected in each school which comprises of 25 public and 25 private schools. The self-designed questionnaire titled Influence of Gender Inequality on Literacy Skill Development in Children Questionnaire has two sections. While section A of the questionnaire reveals the demographic characteristics of the respondents, section B contains 25 items which are grouped into 5 sub-sections. Each section has its content measuring Influence of Gender Inequality on Literacy Skill Development in

Children. For the validation process, the questionnaire was given to experts in early childhood education, test and measurement and also, language experts. This is done to ensure the face, construct and content validity of the questionnaire on the influence of gender inequality on literacy skill development in children. To determine the reliability of this instrument, the researcher used a test-re test reliability method. The correlation coefficient for the administered instrument was calculated using Cronbach Alpha reliability technique. The justification for this is that, the questionnaire contains statements which are rated on 4 point likert scale. Hence, the reliability coefficient of the instrument was ($\alpha=0.79$). Descriptive statistic of frequency count, percentage, mean, median and standard deviation were used to answer all the research questions.

RESULTS AND DISCUSSION

Research Question 1: What is the influence of gender inequality on learners’ phonemic awareness?

Table 4.5: Showing the Influence of Gender Inequality on Learners’ Phonemic Awareness

S/N	ITEMS	SA	A	D	SD	Mean	SD
A	PHONEMIC AWARENESS						
1	Male children demonstrate difficulty learning nursery rhymes that female pupils	9 (18)	18 (36)	22 (44)	1 (2)	2.30	0.7890
2	Gender inequality among male and female pupils is attributed to children having trouble counting out syllables in words	39 (78)	9 (18)	2 (4)	- -	1.26	0.5272
3	Male and female children differ in their level of difficulty noticing sound repetition or alliteration	29 (58)	16 (32)	5 (10)	- -	1.52	0.6773
4	Gender inequality have positive influence of the rate at which children identify the first sound they hear in words	31 (62)	9 (18)	7 (14)	3 (6)	1.64	0.9864
5	Male and female children have the same level of participation in rhyming words in word play	16 (32)	20 (40)	8 (16)	6 (12)	2.08	0.9864
WA = 1.76 (Low)							

The result on table above revealed that gender inequality to some extent influence children phonemic awareness (WA=1.76). The detail explanation is as follows; the result revealed that Male children demonstrate difficulty learning nursery rhymes that female pupils ($\pi=2.30$), also, that gender inequality among male and female pupils is attributed to children having trouble counting out syllables in words ($\pi=1.26$), also, Male and female children differ in their level of difficulty noticing sound repetition or alliteration ($\pi = 1.52$), also, gender inequality have positive influence of the rate at which children identify the first sound they hear in words ($\pi = 1.64$) and lastly Male and female children have the same level of participation in rhyming words in word play ($\pi = 2.08$).

Research Question 2: What is the influence of gender inequality on learners’ Awareness of Print?

Table 4.6: Showing the Influence of Gender Inequality on Learners’ Awareness of Print

B	Awareness of Print	SA	A	D	SD	Mean	SD
1	Male children have better skill in learning about book handling	68 (18.9)	87 (24.2)	116 (32.2)	89 (24.7)	2.37	1.05
2	Male children have better awareness on how to find the top and bottom on a page	65 (18.1)	100 (27.8)	115 (31.9)	80 (22.2)	2.42	1.03
3	Male and female children have the same level of skill on how to identify the front and back cover of a book	131 (36.4)	147 (40.8)	35 (9.7)	47 (13.1)	3.01	0.99
4	Gender inequality influence the children development of very important concept "word" – that meaning is conveyed through words	116 (32.2)	147 (40.8)	35 (9.7)	47 (13.1)	2.96	0.94
5	Gender of children influence the way they learn about how printed words are separated by spaces	181 (50.3)	169 (46.9)	8 (2.2)	2 (0.6)	3.47	0.57
WA= 2.8 (Average)							

The result on the table above revealed that the extent to which gender inequality influence children awareness of print is average (WA=2.8). The detail explanation is as follows; result on the table above revealed that Male children have better skill in learning about book handling ($\pi=2.37$), also that Male children have better awareness on how to find the top and bottom on a page ($\pi=2.42$), also that Male and female children have the same level of skill on how to identify the front and back cover of a book ($\pi=3.01$), also that Gender inequality influence the children development of very important concept "word" – that meaning is conveyed through

words ($\pi=2.96$), and finally that Gender of children influence the way they learn about how printed words are separated by spaces ($\pi=3.47$).

Research Question 3: What is the influence of gender inequality on learners' Vocabulary development?

Table 4.7: Showing the Influence of Gender Inequality on Learners' Vocabulary Development

C	Vocabulary Development	SA	A	D	SD	Mean	SD
1	Word consciousness does not have anything to with being male or female	1 (1)	1 (1)	81 (81)	17 (17)	3.14	0.45
2	Wide or extensive independent reading to expand word knowledge is more pronounced in males than female children	12 (12)	8 (8)	59 (59)	21 (21)	2.90	0.87
3	Learning instruction in specific words to enhance comprehension of texts containing those words is better demonstrated by male children	19 (19)	31 (31)	49 (49)	1 (1)	2.32	0.79
4	Learning instruction in independent word-learning strategies is better demonstrated by female children	42 (42)	48 (48)	5 (5)	5 (5)	1.57	0.70
5	Word consciousness and word-play activities that motivate and enhance learning is better demonstrated by male children	41 (41)	25 (25)	30 (30)	1 (1)	1.91	0.87
WA = 2.4 (Average)							

Table result on the table above revealed that gender inequality to some extent influence children vocabulary development (WA = 2.4). The detail explanation is as follows; the result on the table above revealed that Word consciousness does not have anything to with being male or female ($\pi = 3.14$), also Wide or extensive independent reading to expand word knowledge is more pronounced in males than female children ($\pi = 2.90$), also Learning instruction in specific words to enhance comprehension of texts containing those words is better demonstrated by male children ($\pi= 2.32$), Learning instruction in independent word-learning strategies is better demonstrated by female children ($\pi= 1.57$) and finally, Word consciousness and word-play activities that motivate and enhance learning is better demonstrated by male children ($\pi=1.91$).

Research Question 4: What is the influence of gender inequality on learners' spelling development?

Table 4.8: Showing the Influence of Gender Inequality on Learners' Spelling Development

D	Spelling Skills	SA	A	D	SD	Mean	SD
1	Using the school or local library helps male children develop better spelling skills	34 (56.7)	23 (38.3)	2 (3.3)	1 (1.7)	3.50	0.72
2	Female children often write about the things they like that male children	10 (16.7)	5 (8.3)	33 (55.0)	12 (20.0)	2.22	0.96
3	Male children develop words without assistance unless he asks for help than female children	28 (46.7)	21 (35)	5 (8.3)	6 (10)	3.18	0.97
4	Male children properly pronounce words before attempting to spell it that female children	3 (5)	13 (21.7)	27 (45.0)	17 (28.3)	2.03	0.84
5	Rhyming words is a game that build spelling skills in females that males	-	4 (6.7)	29 (48.3)	29 (45.0)	1.62	0.61
WA= 2.5 (Average)							

The result on the table above revealed that the extent to which gender inequality influence children speaking skill development is average (WA = 2.5). The detail explanation is as follows; the result on the table above revealed that Using the school or local library helps male children develop better spelling skills ($\pi=3.50$), also that Female children often write about the things they like that male children ($\pi=2.22$), also that Male children develop words without assistance unless he asks for help than female children ($\pi=3.18$), also that Male children properly pronounce words before attempting to spell it that female children ($\pi=2.03$), and finally that, Rhyming words is a game that build spelling skills in females that males ($\pi=1.62$).

Research Question 5: What is the influence of gender inequality on learners' comprehension ability?

Table 4.9: Showing the Influence of Gender Inequality on Learners' Comprehension Ability

E	Reading Comprehension	SA	A	D	SD	Mean	SD
1	Male children develop to be strong readers that female children	4 (6.7)	18 (30.0)	22 (36.7)	16 (26.7)	2.17	0.91
2	Male and female children have equal experience and knowledge of the world, vocabulary, language structure, and reading strategies to make sense of the text and know how to get the most out of it	7 (11.7)	24 (40.0)	8 (13.3)	21 (35.0)	2.28	1.08
3	Male and female children know when they have problems with understanding and what thinking strategies to use to resolve these problems when they pop up	9 (18.0)	19 (31.7)	12 (20.0)	20 (33.3)	2.28	1.09
4	Male and female children have equal understanding that comprehension is the reason for reading	15 (25.0)	11 (18.3)	23 (38.3)	11 (18.3)	2.50	1.07
5	Male develop to be good and active readers, and have the skills to absorb what they read, analyze it, make sense of it, and make it their own than female children	25 (41.7)	33 (55.0)	2 (3.3)	–	3.38	0.56
WA= 2.5 (Average)							

The table above revealed that the extent to which gender inequality influence children comprehension ability is high (WA = 2.5). The detail explanation is as follows; the result on the table revealed that, Male children develop to be strong readers that female children ($\pi=2.17$), Male and female children have equal experience and knowledge of the world, vocabulary, language structure, and reading strategies to make sense of the text and know how to get the most out of it ($\pi=2.28$), Male and female children know when they have problems with understanding and what thinking strategies to use to resolve these problems when they pop up ($\pi=2.28$), Male and female children have equal understanding that comprehension is the reason for reading ($\pi=2.50$), and finally Male develop to be good and active readers, and have the skills to absorb what they read, analyze it, make sense of it, and make it their own than female children ($\pi=3.38$).

Discussion of Findings

The finding of the study revealed that Gender inequality to some extent influence children phonemic awareness. Phonological awareness skills are considered essential components that contribute in acquiring and developing reading in children. Research studies indicate that phonological awareness is an important indicator of literacy skills in school. The purpose of this study was to examine the effect of both gender differences and age level on phonological awareness skills for preschool children. The study adapted some of the tests included in the Phonological Awareness Test-Second Edition (PAT-2): rhyme discrimination, rhyme production, sentence segmentation, syllables segmentation, phone segmentation, isolation of first sound, isolation of final sound, isolation of middle sound, deletion of compound words, deletion of phonemes, substitution with cubes, blending of syllables, and blending of phonemes. The study also used two subtests from the Comprehensive Test of Phonological Processing (CTOPP-2): matching of the first sound and matching of the last sound. The researcher used the Multivariate Analysis of Variance (MANOVA) to examine the effect of both gender and grade level on phonological awareness skills. The results of the study showed no significant main effect of gender in phonological awareness tests. The results also showed a significant main effect of age level in favour of KG2 in most of the phonological awareness skills except for syllable blending.

The finding of the study revealed that gender inequality to some extent influence children vocabulary development. However, other study revealed significant effects of children's gender on all language measures except case, as manifested in an advantage for girls. This is the first study that confirms the gender gap for L1 bilingual acquisition, which was also reported for monolingual (Bornstein, 2004; Eriksson, 2012) and L2 acquisition (Van Der Slik, 2015). Gender was also correlated with the input situation in our data: being a girl is correlated with a later L2 AoO and a higher L1 use with the family and other people. Also, some other study explored gender differences in emerging language skills in 13,783 European children from 10 non-English language communities. It was based on a synthesis of published data assessed with adapted versions of the MacArthur-Bates Communicative Development Inventories (CDIs) from age 0.08 to 2.06. The results showed that girls are slightly ahead of boys in early communicative gestures, in productive vocabulary, and in combining words. The difference increased with age. Boys were not found to be more variable than girls. Despite extensive variation in language skills between language communities, the difference between girls and boys remained. This suggests that the difference is caused by robust factors that do not change between language communities.

The finding of the study revealed that the influence of gender inequality on children speaking skill development is high. However, some other study established an overall gender difference exists in adult L2 acquisition, along the lines of the differences found in

L1 acquisition, with females outperforming males. The result of the finding revealed a consistent gender effect for speaking and writing proficiency: Female learners outperformed male learners, independent of country of origin and mother tongue. This gender gap remained remarkably robust when individual, learner characteristics were taken into account, such as education, age of arrival, length of residence and number of lessons, or context characteristics, such as country of origin and mother tongue. The occurrence of this effect corroborates the validity of the gender gap found. These characteristics are known to have an impact on L2 proficiency. The negative role of number of lessons (hours studying Dutch), however surprising at first sight, could also be explained, because successful learners may stop attending lessons as soon as they believe to have reached the required level to pass the test. Perhaps the number of lessons works in a positive way at starting levels of language acquisition, but not any longer at higher levels of proficiency, as tested by the state exam Dutch as a second language (CEFR B2). For listening proficiency, this gender gap was absent and for reading proficiency it was even reversed: male language learners scored significantly higher on the reading in Dutch proficiency test than female language learners, although the difference between males' and females' reading proficiency scores was actually quite small.

Conclusion

Based on the findings, the researchers arrived to the conclusion that gender inequality among pre-primary school children to some extent influence the literacy skill development of children; therefore, gender inequality would not always guarantee a good literacy skill development in children. Furthermore, gender inequality do not affect entirely the levels of reading comprehension skill of the child, the significant difference as concluded by the researcher in the literal and evaluative levels of male and female to reading comprehension skills is due to their reading attitudes and practices individually. Furthermore, one possible explanation for the superiority of the male students in the study is that males and females may not have been equally matched in their interests to the reading text. Although children might be at the same instruction level, the male students seemingly have been more proficient readers than their female counterparts. Thus, however, there should be a balance of reading materials, both male-oriented and female-oriented. Therefore, teachers can make use of reading materials that suit to the needs and genders, which consequently reinforce students' attitudes and practices towards reading.

Recommendations

It was recommended based on the finding that;

- i. Effort by the school administrators is necessary in the provision of reading materials and literacy skill development packages that are both male-oriented and female-oriented.
- ii. Teachers should make use of reading materials that suit to the needs and genders, which consequently reinforce students' attitudes and practices towards reading and also enhance their literacy skill development.
- iii. Also, government should at always ensure the effective use of the instructional tools provided for the development of the literacy skill development in public schools.

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