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Parental Characteristics Influencing Preschool Pupils' Access to Online Learning in Kibagabaga Area, Kigali, Rwanda

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Abstract

The study intended to analyse the relationship between parental characteristics and preschool children' access to online learning in the Kibagabaga area. The specific objectives of this study sought to examine the influence of parents' income on preschool pupils' access to online learning in the Kibagabaga area, to find out the influence of parents' level of education on preschool pupils' access to online learning in the Kibagabaga area and to establish the correlation between parents' experience and preschool children's access to online learning in the Kibagabaga area. The study adopted Vygotsky's sociocultural theory. The researcher adopted a descriptive research design. The study population consisted of 175 people, including 12 teachers, 51 parents, and 55 grade three children from the selected schools. Primary data was gathered through structured questionnaires and interviews in order to gain useful information. The data was analyzed using descriptive and correlational techniques. The results showed that parents' level of income, parents' level of education and parents' experience had a positive and significant correlation with preschool pupils' access to online learning. The study concluded that higher income levels are generally associated with greater access to technology, internet connectivity, and educational resources, enabling more opportunities for online learning engagement. Conversely, lower income levels can limit access, create a digital divide, and potentially impact a child's early learning experiences. The study concluded that parents with more education tend to be more involved in their children's education, which can translate into greater support for online learning initiatives. Higher education may foster a more positive attitude toward technology and its role in education, encouraging parents to embrace online learning for their children. The study concluded that parents with limited technology experience may struggle to navigate online platforms and provide adequate support, potentially hindering their child's learning progress. Policymakers should implement strategies to mitigate the impact of income disparities on online learning. This includes ensuring equitable access to technology and the internet, providing targeted support for low-income families, and promoting digital literacy for all parents. Administrators should provide resources and training to parents, especially those with lower levels of education, to help them effectively support their children's online learning experiences. Parents should also participate in their child's online learning activities, such as reviewing assignments, attending virtual classes (when appropriate), and discussing their child's learning progress.

Keywords: *Parental characteristics, access to online learning, parents' income, parents' level of education, parents' experience, preschool children*

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1. Introduction

In the early days, teaching and learning were more formal and took place in the classroom; however, rapid advances in technology and the outbreak of the coronavirus pandemic have changed how children learn (Dhawan, 2020). Learning and teaching materials are shifting from blackboards to more sophisticated devices that support the teaching and learning process in schools. As a result, children have had more online learning in recent years (Cope & Kalantzis, 2022). In this context, parents play an important role in their children's education, both at home and at school, supporting their academic learning, development, and participation (Rasmitadila et al., 2020). This implies that the characteristics of parents determine how well they are able to support and promote the learning of their children both in school and at home

Given that parental engagement is highly individualized, a thorough definition of parental involvement can cover the full range of expectations and beliefs families hold. To achieve this, Herrera, Porter, and Barko-Alva (2020) propose that interactions and connections among students, teachers, parents, and community members resemble partnerships. According to McCarthy and Guerin (2022), a family-centred strategy is the most efficient for obtaining positive results because it fosters the child's growth and development through overlapping support from parents, family, community, and the child's learning experiences. For online learning, therefore, parents and learners must stay connected; parents can do this by purchasing required gadgets, helping learners sign in to classes, and supporting them with any difficulties they may experience.

The Ministry of Education and the Rwanda Education Board (REB) have worked together to develop several initiatives to support remote learning students. They began airing instructional radio programs on April 4, 2020, and made them available on the Huye, Musanze, Rubavu, Nyagatare, Rusizi, and Parliament stations in the district. Additionally, they created the REB eLearning YouTube channel, which offered students on-demand content. To let students access these e-learning portals at home with their parents, REB also partnered with local telecoms providers like Multinational Telecommunication Network (MTN) Rwanda and Airtel to waive internet fees for students (Alacevich, 2020).

However, the COVID-19 pandemic disrupted students' lives in numerous ways, regardless of education level or course of study. It also interrupted the school curriculum, forcing students and educators to suddenly abandon their programs and focus on learners' well-being and mental health. In particular, those transitioning from one educational phase to another were most affected (Bozkurt et al., 2020). This included those switching from primary school to high school, high school to tertiary education, and tertiary education to employment. In a small way, it may also have affected preschool pupils preparing to move to primary school. In addition to not falling behind on their curriculum, these students were separated from their social group, which may have affected their development and likely contributed to increased socio-economic inequalities in education that challenge inclusive growth unless immediate and comprehensive measures are taken (Iram et al., 2020).

Therefore, the study aims to understand the association between parental variables, such as income, education, and experience with online learning, and preschoolers' educational outcomes. This is based on the idea that parents significantly influence their children's

academic careers. Therefore, parental traits may affect their children's educational outcomes, including how well they navigate online learning

1.1 Problem Statement

Today's rapid technological advancements have created new ways children learn. More advanced technology that enhances the teaching and learning process in schools is replacing chalkboards as the primary source of instructional materials. A successful online learning program for preschool children can be defined by parents' ability to spark children's interest in learning, provide learning resources, and ultimately guide them toward success while ensuring the goals they want their children to achieve are developmentally appropriate.

As a result of the COVID-19 pandemic, governments and other education stakeholders initiated online learning through different platforms so pupils could continue their courses. Nonetheless, most parents had never experienced online learning and therefore faced many difficulties helping their children, which compounded the problem. Some studies have highlighted the relationship between parental characteristics and online learning. These studies found that in countries with lower socio-economic backgrounds, access to online teaching and learning resources is a major challenge. Low levels of computer literacy and limited broadband access, along with the high costs of information and communication technology, assistive devices, and Internet access in developing countries in Africa alone, make implementing online learning difficult. However, no study has examined how parental characteristics influence preschool online learning in Rwanda, which is the purpose of this study. Therefore, this study aimed to answer the following question: How do parental traits affect online learning for preschoolers in Rwanda?

1.2 Research Objectives

1.2.1 Broad Objective

To examine how parents' characteristics influence preschool pupils' access to online learning in the Kibagabaga area.

1.2.2 Specific Objectives

1. Determine the influence of parents' income level on preschool pupils' access to online learning in the Kibagabaga area.
2. Examine the influence of parents' level of education on preschool pupils' access to online learning in the Kibagabaga area.
3. Assess the correlation between parents' experience and preschool children's access to online learning in the Kibagabaga area.

2. Literature Review

2.1 Theoretical Framework

According to Vygotsky's 91934) sociocultural theory, children learn cultural norms, ideas, and problem-solving techniques by conversing with more experienced members of the community. This is how social media affects human development. Vygotsky's theory includes ideas such as personal language, culturally specific tools, and the zone of proximal development. Because Vygotsky argues that community is essential to meaning-making, his theory (Vygotsky, 1978) also emphasizes the importance of social contact in cognitive development.

Vygotsky argues that thinking has social roots and that the social context in which cognitive development takes place must be considered to understand it. His hypothesis holds that social interaction is crucial for cognitive development, especially for developing higher-order thinking skills. Social interactions between a teacher and a student, or between a parent and their child, influence a child's thinking and behavior in other situations (Driscoll, 2000). This component is used in this study to show the connection between access to preschool online learning and parents' experiences. This matters because, to effectively support their children, parents must be familiar with online learning.

According to Vygotsky (1978), every cultural function in a child's development appears twice: once on the social level and once on the individual level. Interpsychologically, these functions occur between individuals, while intrapsychologically, they occur within the child. This technique, known as directed participation, involves a child actively acquiring new cognitive and problem-solving skills through a meaningful cooperative activity with an assisting adult (Rogoff, 1990). By working together to complete a variety of tasks, a learner internalizes socially shared experiences and their associated effects. Additionally, they acquire knowledge and practical skills (John-Steiner & Mahn, 1996; Scott & Palincsar, 2013). The guided participation and internalization processes expose the Vygotskian understanding of cognitive development "as the transformation of socially shared activities into internalized processes," or an act of enculturation, rejecting the Cartesian division between the internal and the external (John-Steiner & Mahn, 1996).

Vygotsky's second key concept focuses on language's role in the learning process. According to Vygotsky, social structures shape how individuals interact with one another and at work, which in turn affects how they feel, think, and view the world (Miller, 2011). By suggesting that tools and signs, or semiotics, such as language, numbering systems, conventional signs, and artwork, mediate human action at both the societal and individual levels, he advanced his line of thought. Vygotsky proposed that these instruments, or semiotic mediation, moderate societal and individual functioning and promote the co-construction of knowledge. Through appropriation, the process by which a person adopts or internalizes these socially accessible psychological tools to support future autonomous problem solving, these semiotic techniques play a significant role in learning and development (John-Steiner & Mahn, 1996). This implies that, to use existing tools, kids and students don't have to invent them. After being shown how to utilize a certain tool, individuals can apply it to a range of circumstances, including new occurrences (Scott & Palincsar, 2013). This component links parents' education level to preschool pupils' access to online learning. Parents need proper education to pass it on to their children.

The Zone of Proximal Development (ZPD) notion is arguably the most extensively used idea in sociocultural theory. Vygotsky (1978) defines it as "the gap between the actual developmental level as assessed by autonomous problem solving and the level of potential development as assessed by problem solving under adult supervision or in cooperation with more capable peers." Essentially, it is the space where learning takes place. Vygotsky believed education should be adapted to a child's developmental stage and argued that understanding the connection between learning and growth requires distinguishing between actual and potential stages of development. He believed that rather than just assessing children's autonomous abilities, the ZPD was a more accurate and dynamic measure of cognitive development (Scott & Palincsar, 2013). This component shows the relationship between all the independent variables and preschool learners' access to online learning. Parents need proper

education and experience with online learning to share knowledge and skills with learners. Moreover, parents need adequate income to afford the tools needed for online learning.

Vygotsky disagreed with Piaget's theory that children's development must come before their learning, arguing that "learning is a necessary and universal aspect of the culturally organized process of developing human psychological functions, in particular" (Vygotsky, 1978). Consequently, social learning usually precedes development.

Drawing on Vygotsky's sociocultural approach, the author adapted a child's cognitive development to the principles of more knowledgeable others. In relation to a specific task, procedure, or concept, someone with a higher level of ability or understanding than the student can help. The same academic claims that this kind of social connection involves a cooperative, collaborative conversation between a child and a parent that supports the child's cognitive development.

The implication is that the more knowledgeable one might be reflected as a teacher or an older adult with more knowledge or experience. This enables certain institutions to use electronic performance support tools to assist kids in their learning process while yet maintaining a more educated stance. Parental services are also used specifically in educational institutions to support and accompany their children in the learning process, provided they have more knowledge of the subject matter than the children.

Vygotsky agreed with Piaget that young children are inherently inquisitive and actively involved in creating and acquiring new knowledge. Vygotsky, by contrast, emphasized how society contributes to a child's growth, whereas Piaget stressed self-initiated learning. According to Vygotsky's (1978) theory, a child learns a great deal through social interactions with an experienced mentor who can model behavior and give verbal instructions. Vygotsky referred to cooperative or collaborative discussion. From this angle, kids strive to comprehend what their parents or teachers are telling them, internalize the knowledge, and then apply it to control or steer their own behavior. Therefore, the theory is convenient for the present study because it shows the value of parents in the child's cognitive development.

2.2 Empirical Review

2.2.1 Parents' income and preschool pupils' access to online learning

In Europe, Raudenská and Hamplová (2022) looked into how parental socioeconomic position affected Czech children's academic achievement. Data from the 2015–2016 Czech Household Panel Survey, which is nationally representative, were subjected to structural modeling. After adjusting for other family factors, the results showed that socioeconomic position had no discernible direct effects on academic achievement. Positive parenting, a literacy-rich environment, and parents' goals for their children all helped transmit the effects of parental money and education. However, the study focused on academic performance and did not include online learning. However, academic performance is part of online learning, so the study provides relevant knowledge.

In Rwanda, Shagembe and Mgonda's (2021) study investigates the connection between parents' socioeconomic position and the cognitive growth of young children. It specifically examined preschoolers' cognitive abilities in a household setting and the link between parents' income and their offspring's cognitive development. A total of 390 participants, 195 children ages 4 to 5 and their parents, completed a questionnaire in Msalala district, Shinyanga region. The results

showed no connection between preschoolers' problem-solving abilities and their parents' wealth. However, unlike the current study, it did not include online learning.

2.2.2 Parents' educational level in influencing preschool pupils' access to online learning

In Sri Lanka, Karunakaran et al. (2019) investigated the connection between students' secondary-level academic achievement in mathematics and their parents' educational background. The study took place in two districts in Sri Lanka's plantation regions. Seven hundred and one pupils, chosen at random, answered a questionnaire. The findings showed a statistically significant correlation between adolescents' academic achievement and their parents' educational background. The current study focuses on online learning in pre-schools, whereas the previous study was performed among secondary school students and did not specifically address online learning.

Darko-Asumadu and Sika-Bright (2021) examined the role of parental participation in the relationship between parents' socioeconomic status and their children's academic performance in the Cape Coast metropolis of Ghana. Using Walberg's theory of educational production, the findings came from surveys given to 120 randomly selected Kwaprow Basic School children, as well as 10 and 5 interviews with parents, respectively. The study found that parents' educational background had little bearing on students' academic performance. Unfortunately, the study did not focus on online learning.

In Nandi County, Kenya, Chemagosi (2020) aimed to determine the impact of parental educational attainment on pre-primary students' performance in curriculum-related activities. The study employed a descriptive survey design. The study used descriptive statistics such as frequencies and percentages to evaluate quantitative data, and simple linear regression for inferential analysis. The study analyzed and presented qualitative data narratively. According to the study, parents' educational attainment affects their children's performance in public pre-primary schools in Nandi County, Kenya. The study provided evidence that parental education level influences learners' performance, which could result from online learning. However, the study was based in Kenya.

2.2.3 Parents' Experience in Regard to Online Learning

Globally, in Tennessee, USA, Reeves (2021) examined how parents felt about their experiences with their child(ren)'s virtual learning. Parents whose children attended Madison Campus Elementary School and had at least one year of experience with virtual learning were eligible to participate. We used a survey sent via email through Andrews University's ClassClimate® survey technology to gather data. Fifty-five parents returned the survey. The results indicated that parents of many children were more likely to say that they struggled with distraction 80–100% of the time. Furthermore, parents' worry levels about the technology required for virtual learning varied significantly by race. Hispanic parents reported the highest stress about technology (87.5%). Overall, parents expressed concerns about their kids' excessive screen time, lack of social interaction, and their own inability to work while their kids were enrolled in virtual learning. However, the study didn't address how prior knowledge influenced access to online learning.

In Africa, Emmanuel and Ondiek (2021) investigated how the unexpected paradigm changes affected parents of children attending rural schools in Kenya during the pandemic. The survey design used was descriptive. Online surveys were used to gather primary data, and secondary data from previous studies were also gathered. The analysis was completed using a statistical program. The findings showed that many Kenyan parents may be open to remote learning:

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39.8% said they would advocate it after mentioning certain advantages, while 24.8% said they would not. However, it did not show how this affected online education.

3. Methodology

The researcher adopted a descriptive research design. The study population consisted of 175 people, including 12 teachers, 51 parents, and 55 grade three children from the selected schools. The study used simple random sampling to select schools. The study also selected children from the selected schools using simple random sampling. The study then used purposive sampling to select preschool teachers and headteachers. The study collected primary data through structured questionnaires and interviews. The data were analyzed using descriptive and correlational techniques.

4. Results and Discussion

4.1 Descriptive Statistics

Descriptive statistics are presented regarding parents' income level, education level, and experience.

4.1.1 Parents' Level of Income Influencing Children's Access to Online Learning

The findings related to parents' level of income and influence on preschool pupils' access to online learning are presented in Table 1

Table 1: How Parents' Level of Income Influences Children's Access to Online Learning

Statement	Strongly disagree	Disagree	agree	strongly agree	Mean	std. dev
Parents from Kibagabaga are too poor to support their preschool children's online learning	20 (50.0%)	10 (25.0%)	3 (7.50)	7 (17.5%)	1.93	1.14
Parents from Kibagabaga are poor to support their preschool children's online learning	27 (67.5%)	2 (5.0%)	1 (2.5%)	10 (25.0%)	1.85	1.31
The parents from Kibagabaga are not keen to support their preschool children in online learning	2 (5.0%)	12 (30.0%)	2 (5.0%)	24 (60.0%)	3.20	1.04
Financial constraints often determine how many pupils join online learning	1 (5.0%)	4 (10.0%)	3 (7.5%)	31 (77.5%)	3.57	0.87
Pupils from highly rich families have all the learning materials needed for online learning	1 (5.0%)	5 (12.5%)	8 (20.0%)	25 (62.5%)	3.40	0.90
Pupils from medium-income families access online learning	1 (2.5%)	0.0%	5 (10.0%)	35 (87.5%)	3.82	0.55
Pupils from low-income families rarely access online learning	5 (12.5%)	10 (25.0%)	2 (5.0%)	23 (57.5%)	3.07	1.16
Parental level of income impacts on preschool pupils' access to online learning	2 (5.0%)	4 (10.0%)	3 (7.5%)	31 (77.5%)	3.57	0.87

The study findings indicated that the majority of the respondents who were 30(75.0%) disagreed with the statement that parents from Kibagabaga are too poor to support their

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preschool children in online learning (mean=1.93, std.dev=1.14). Further results showed that most respondents (29; 72.5%) disagreed with the statement that parents from Kibagabaga are poor and unable to support their preschool children in online learning (mean=1.85, std.dev=1.31). In addition, 65.0% of respondents agreed that parents from Kibagabaga are not keen to support their preschool children in online learning (mean=3.20, std.dev=1.04). Further results showed that the majority of the respondents, who were 34(85.0%), agreed with the statement that financial constraints often determine how many pupils join online learning (mean=3.57, std.dev=0.87). In addition, most respondents (33; 82.5%) agreed that pupils from highly rich families have all the learning materials needed for online learning (mean=3.40, std.dev=0.90). Further results showed that most respondents (39; 97.5%) agreed that pupils from medium-income families access online learning (mean=3.82, std.dev=0.55). In addition, most respondents (25; 62.5%) agreed that pupils from low-income families rarely access online learning (mean=3.07, std.dev=1.16). Further results showed that most respondents (34; 85.0%) agreed that parental income level affects preschool pupils' access to online learning (mean=3.57, std.dev=0.87).

Teachers were also asked to indicate how parents' income level influences children's access to online learning. Table 2 shows the results.

Table 2: Teachers' views on how Parents' Level of Income Influences Children's Access to Online Learning

Statement	Strongly disagree	Disagree	agree	strongly agree	Mean	std.dev
Parents with low-income levels are unable to support their children in online learning	1 (4.0%)	3 (12.0%)	11 (44.0%)	10 (40.0%0	3.20	0.82
The parents in the middle-income earning level have little ability to support their children	2 (8.0%)	5 (20.0%)	9 (36.0%)	9 (36.0%)	3.00	0.96
Parents who are higher-income earners are able to support their children in online learning	4 (16.0%)	1 (4.0%)	10 (40.0%)	10 (40.0%)	3.04	1.06
Parents who have little income are unable to buy data bundles for their children	5 20.0%	2 8.0%	14 (56.0%)	4 (16.0%)	2.68	0.99
Parents with low income are also disadvantaged in terms of access to internet connectivity	7 (28.0%)	4 (16.0%)	10 (40.0%)	4 (16.0%)	2.44	1.08
Parents with less income cannot afford the infrastructure needed to learn online	7 (28.0%)	5 (20.0%)	9 (36.0%)	4 (16.0%)	2.40	1.08
Parents from rich backgrounds are able to give their children the needed infrastructure for online learning	5 (20.0%)	12 (12.0%)	5 (20.0%)	12 (48.0%)	2.96	1.21

The results showed that most respondents (21; 84.0%) agreed that parents with low income cannot support their children in online learning (mean=3.20, std.dev=0.82). Further results showed that most respondents who were 18 (72.0%) agreed that parents in the middle-income earning level have little ability to support their children (mean=3.00, std.dev=0.96). In addition, most respondents (20; 80.0%) agreed that higher-income parents can support their children in online learning (mean=3.04, std.dev=1.06). Further results showed that most respondents aged 18 (72.0%) agreed that parents with low income cannot afford data bundles for their children

(mean=2.68, std.dev=0.99). In addition, the results showed that most respondents who were 14 (56.0%) agreed that parents with low income are also disadvantaged in terms of access to internet connectivity (mean=2.44, std.dev=1.08). Further results showed that most respondents (52.0%) agreed that parents with lower income cannot afford the infrastructure needed for online learning (mean=2.40, std. dev.=1.08). In addition, results showed that the majority of respondents (68.0% agreed with the statement that parents from rich backgrounds are able to give their children the needed infrastructure for online learning (mean=2.96, std. dev.=1.21).

4.1.2 Parents' Level of Education on Preschool Pupils' Access to Online Learning

Table 3 presents the findings on parents' level of education and its influence on preschool pupils' access to online learning.

Table 3: Parents' Level of Education on Preschool Pupils' Access to Online Learning

Statement	Strongly disagree	Disagree	agree	strongly agree	Mean	std.dev
A good number of parents in Kibagabaga did not attend school	3 (7.5%)	5 (12.5%)	3 (7.5%)	29 (72.5%)	3.45	0.99
Most of the parents attended non formal education	11 (27.5%)	9 (22.5%)	3 (7.5%)	17 (42.5%)	2.65	1.29
A large number of parents from Kibagabaga only presented themselves for basic education	9 (22.5%)	4 (10.0%)	7 (17.5%)	20 (50.0%)	2.95	1.24
A few parents joined VTC programs	4 (10.0%)	7 (17.5%)	23 (7.5%)	26 (65.0%)	3.28	1.09
Only a few of parents from Kibagabaga went for schooling in TVET program	3 (7.5%)	10 (25.0%)	2 (5.0%)	25 (62.5%)	3.23	1.07
Only a few of parents from Kibagabaga went for schooling in secondary education	4 (10.0%)	7 (17.5%)	2 (5.0%)	27 (67.5%)	3.30	1.09
Having a higher level of education is advantage to a parent when it comes to online learning	10 (25.0%)	9 (22.5%)	3 (7.5%)	18 (45.0%)	2.73	1.28
Having a form of formal schooling for a parent adds to the possibility of a child joining online learning	2 (5.0%)	4 (10.0%)	7 17.5%	27 (67.5%)	3.48	0.88
It is impossible for a parent to support a child in online learning if the parent has never been to school	27 (67.5%)	2 (5.0%)	1 (2.5%	10 (25.0%)	1.85	1.31
Having been to a formal educational setting for a parent enables them to navigate the digital platforms to support children's learning	4 (10.0%)	0.0%	) (10.0%)	32 (80.0%)	3.60	0.93

The results showed that most respondents (31; 80.0%) strongly agreed that many parents in Kibagabaga did not attend school (mean=3.45, std.dev=0.99). The results also showed that most respondents aged 21 (50.0%) agreed that most parents attended non-formal education (mean=2.65, std.dev=1.29). Further results showed that most respondents (27; 67.5%) agreed

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that many parents from Kibagabaga attended only basic education (mean=2.95, std.dev=1.24). In addition, most respondents (29; 72.5%) agreed that only a few parents joined TVET programs (mean=3.28, SD=1.09). Further results showed that most respondents (27; 67.5%) agreed that only a few parents from Kibagabaga enrolled in a TVET program (mean=3.23, SD=1.07). In addition, most respondents aged 29 (72.5%) agreed that only a few parents from Kibagabaga pursued secondary education (mean=3.30, SD=1.09). Further results showed that most respondents aged 21 (52.5%) agreed that a higher level of education is an advantage for a parent in online learning (mean=2.73, SD=1.28). In addition, results showed that the majority of the respondents who were 34(85.0%) agreed with the statement that having a form of formal schooling for a parent adds to the possibility of a child joining online learning (mean=3.48, std.dev=0.88). Further results showed that most respondents (29; 67.5%) disagreed with the statement that it is impossible for a parent to support a child in online learning if the parent has never been to school (mean=1.85, std.dev=1.31). In addition, most respondents (34; 90.0%) agreed that having been to a formal educational setting as a parent enables them to navigate digital platforms to support learning (mean=3.60, std.dev=0.93).

Teachers were also asked to describe how parents' education level affects preschool pupils' access to online learning. Results are shown in Table 4.

Table 4: Teachers' views on how Parents' Level of Education influences Preschool Pupils' Access to Online Learning

Statement	Strongly disagree	Disagree	agree	strongly agree	Mean	std.dev
Parents who have not acquired any form of education have difficulties supporting their children in online learning	2 (8.0%)	4 (16.0%)	8 (32.0%)	11 (44.0%)	3.12	0.97
Having at least basic education for parents is helpful for parents to support their children in online learning	2 (8.0%)	5 (20.0%)	9 (36.0%)	9 (36.0%)	3.00	0.96
Parents who have secondary education are able to easily navigate online platforms for learning	2 (8.0%)	3 (12.0%)	10 (40.0%)	10 (40.0%)	3.12	0.93
Parents who have acquired vocational training have the advantage of having an easy time navigating the online platforms for learning	2 (8.0%)	3 (12.0%)	8 (32.0%)	12 (48.0%)	3.20	0.96
Parents with TVET education are able to help their children learn through online platforms	2 (8.0%)	3 (12.0%)	13 (52.0%)	7 (28.0%)	3.00	0.87
Formal educational attainment by parents has an influence on access to online learning by pupils	1 (4.0%)	3 (12.0%)	10 (40.0%)	11 (44.0%)	3.24	0.83

The results showed that most respondents (19; 76.0%) agreed that parents without any education have difficulty supporting their children in online learning (mean = 3.12, SD = 0.97). Further results showed that most respondents (18; 72.0%) agreed that having at least basic education helps parents support their children in online learning (mean = 3.00, SD = 0.96). In addition, most respondents (20; 80.0%) agreed that parents with secondary education can easily

navigate online learning platforms (mean = 3.12, SD = 0.93). Further results showed that most respondents (20; 80.0%) agreed that parents with vocational training find it easier to navigate online platforms (mean = 3.20, SD = 0.96). In addition, most respondents (20; 80.0%) agreed that parents with TVET education can help their children learn through online platforms (mean = 3.00, SD = 0.87). Further results showed that most respondents (21; 84.0%) agreed that parents' formal educational attainment influences pupils' access to online learning (mean = 3.24, std. dev. = 0.83).

4.1.3 Parents' Experience on Preschool Pupils' Access to Online Learning

Table 5 presents the findings on parents' experiences and their influence on preschool pupils' access to online learning.

Table 5: Parents' Experience on Preschool Pupils' Access to Online Learning

Statement	Strongly disagree	Disagree	agree	strongly agree	Mean	std.dev
The parents have the expertise to involve their preschool children in accessing online learning	4 (10.0%)	1 (2.50%)	5 (12.5%)	30 (75.0%)	3.53	0.96
Parents are able to tell the duration their children spend on screen products for learning activities	3 (7.5%)	1 (2.5%)	4 (10.0%)	32 (80.0%)	3.63	0.87
Parents are able to know when their children make it possible to complete online learning without parental assistance	1 (2.5%)	1 (2.5%)	5 (12.5%)	33 (82.5%)	3.75	0.63
Parents are able to help their children do so many more learning activities or assignments online during class suspension	1 (2.5%)	6 (15.0%)	8 (20.0%)	25 (62.5%)	3.43	0.84
Parents are satisfied with the online learning/learning activities provided by the school during class suspension since they have expertise in that area	6 (12.5%)	7 (17.5%)	5 (10.0%)	24 (60.0%)	3.18	1.13
Parents who are professionals encourage their children's online learning	5 (12.5%)	0.0%	3 (7.5%)	32 (80.0%)	3.55	1.01
Mothers who work all day have enough time to assist their children in out-of-school learning since they are experts in online learning	2 (5.0%)	8 (20.0%)	3 (7.5%)	27 (67.5%)	3.38	0.98
Parents experience so many difficulties when supporting their children	2 (5.0%)	4 (10.0%)	3 (7.5%)	31 (77.5%)	3.57	0.87

The results showed that most respondents (35; 87.5%) agreed that parents have the expertise to involve their preschool children in accessing online learning (mean=3.53, std.dev=0.96). Further results showed that most respondents (36; 90.0%) agreed that parents can tell how long their children spend on screen products for school learning activities (mean=3.63, std.dev=0.87). In addition, most respondents (36; 95.0%) agreed that parents can tell when their children can complete online learning without parental assistance (mean=3.75, std.dev=0.63). Further results showed that most respondents (38; 82.5%) agreed that parents can help their

children complete many more learning activities or assignments online during class (mean=3.43, std.dev=0.84). Further results showed that most respondents (33; 70.0%) agreed that parents are satisfied with the online learning/learning activities provided by the school during class suspension because they are experts in online learning (mean=3.18, std.dev=1.13). In addition, results showed that majority of the respondents who were 28(87.5%) agreed with the statement that parents who are professionals encourage their children's online learning (mean=3.55, std.dev=1.01). Further results showed that most respondents who were 35 (75.0%) agreed that mothers who work all days have enough time to assist their children with out-of-school learning because they are experts (mean=3.38, std.dev=0.98). In addition, results showed that majority of the respondents who were 34(85.0%) agreed with the statement that parents experience so many difficulties when supporting their children during online learning (mean=3.57, std.dev=0.87).

The teachers were further asked to describe how parents' experience on preschool pupils' access to online learning. Results are shown in Table 6.

Table 6: Teachers' views on how Parents' Experience influences Preschool Pupils' Access to Online Learning

Statement	Strongly disagree	Disagree	agree	strongly agree	Mean	std.dev
Parents who have experience in using digital platforms are able to support their children in online learning	1 (4.0%)	3 (12.0%)	12 (48.0%)	9 (36.0%)	3.16	0.80
Parents who have experience with online learning are able to easily navigate online learning platforms for their children	1 (4.0%)	5 (20.0%)	10 (40.0%)	9 (36.0%)	3.08	0.86
Parents must have time to learn how to use online platforms in order to support their children	1 (4.0%)	3 (12.0%)	9 (36.0%)	12 (48.0%)	3.28	0.84
Having professionals who are in a better position to support their children in online learning	2 (8.0%)	3 (12.0%)	7 (28.0%)	13 (52.0%)	3.24	0.97
Parents face a lot of difficulties in helping their children learn through online platforms due to a lack of experience	2 (8.0%)	5 (20.0%)	8 (32.0%)	10 (40.0%)	3.04	0.98

The results showed that most respondents aged 21 (84.0%) agreed that parents with experience using digital platforms can support their children in online learning (mean=3.16, std.dev=0.80). Further results showed that most respondents (76.0%) agreed that parents with experience in online learning can easily navigate online learning platforms for their children (mean=3.08,

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std.dev=0.86). In addition, most respondents (21; 84.0%) agreed that parents must have time to learn how to use online platforms to support their children (mean=3.28, std.dev=0.84). Further results showed that most respondents (20; 80.0%) agreed that professionals are better positioned to support their children in online learning (mean=3.24, std.dev=0.97). In addition, most respondents aged 18 (72.0%) agreed that Parents face many difficulties helping their children learn through online platforms due to a lack of experience (mean=3.04, std.dev=0.98).

4.1.4 Preschool Pupils' Access to Online Learning

Parents were also asked to rate their child's access to online learning.

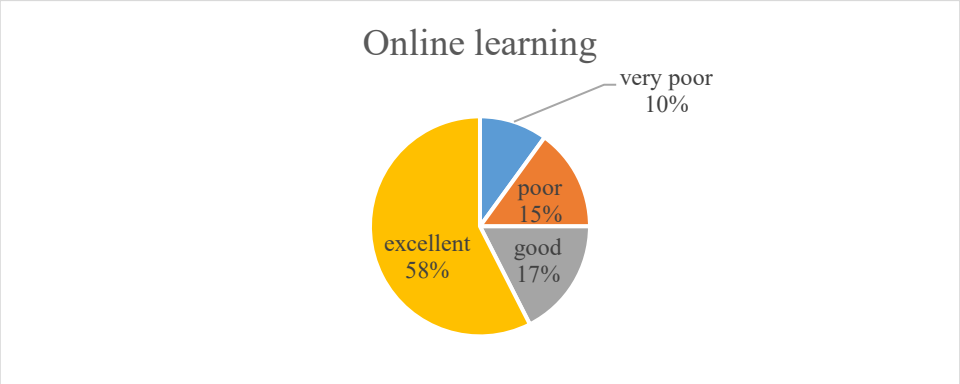


Figure 1: Child Access to Online Learning

Most respondents (58%) reported excellent access to online learning; 17% reported good access, 15% reported poor access, and 10% reported very poor access.

4.2 Correlation Analysis

Correlation analysis was conducted to determine the association between the independent variables (parents' income level, parents' education level, and parents' experience) and the dependent variable (online learning). Results are presented in Table 7.

Table 7: Correlation Results

		Online learning	Parent's level of income	Education level	Parents experience
Online learning	Pearson Correlation	1			
	Sig. (2-tailed)				
Parent's level of income	Pearson Correlation	.659**	1		
	Sig. (2-tailed)	0.000			
Education level	Pearson Correlation	.849**	.563**	1	
	Sig. (2-tailed)	0.000	0.000		
Parents experience	Pearson Correlation	.630**	.686**	.458**	1
	Sig. (2-tailed)	0.000	0.000	0.003	

The results showed that parents' income level was positively and significantly correlated with preschool pupils' access to online learning (r=0.659, p=0.000). This means that higher parental income is strongly and reliably linked to greater access to online learning for preschool children. Therefore, as parental income increases, access to online learning opportunities for preschool-aged children tends to improve. The study findings align with Masereka et al. (2023), who found that parental income and academic performance may be linked through online learning; therefore, this study provides relevant knowledge.

In addition, parents' education level was positively and significantly correlated with preschool pupils' access to online learning (r=0.849, p=0.000). The value of 0.849 indicates a very strong correlation because it is close to 1. This suggests the two variables are strongly associated. This suggests that higher parental education levels are often linked to greater parental involvement in a child's education, which can positively influence access to and success in online learning environments. The study findings align with Chemagosi (2020), who found that parents' educational attainment affects their children's performance in public pre-primary schools in Nandi County, Kenya. This did not align with Darko-Asumadu and Sika-Bright (2021), who found that parents' educational background had little bearing on students' academic performance.

Further results showed that parents' experience was positively and significantly correlated with preschool pupils' access to online learning (r=0.630, p=0.000). A correlation coefficient of 0.630 is generally considered a strong positive correlation. This suggests that parents' experience strongly influences their children's access to online learning. This suggests that parents' experience helps them engage more with their children's online learning. The study findings agree with Agaton and Cueto (2021) that parents' real-world experience as home-schooling instructors is enhanced by online learning.

5. Conclusion

The study concluded that parents' income level was positively and significantly correlated with preschool pupils' access to online learning. A strong positive correlation exists between a parent's income level and a preschool pupil's access to online learning. Higher income levels are generally associated with greater access to technology, internet connectivity, and educational resources, enabling more opportunities for online learning engagement. Conversely, lower income levels can limit access, widen the digital divide, and potentially affect a child's early learning experiences.

The study concluded that parents' education level was positively and significantly correlated with preschool pupils' access to online learning. Parents with higher education are more likely to be digitally literate and have access to necessary resources like computers, the internet, and other online learning tools. Higher education can equip parents with a better understanding of how online learning works and how to navigate it effectively, allowing them to guide their children. More educated parents tend to be more involved in their children's education, which can translate into greater support for online learning initiatives. Higher education may foster a more positive attitude toward technology and its role in education, encouraging parents to embrace online learning for their children.

The study concluded that parents' experiences were positively and significantly correlated with preschool pupils' access to online learning. Parents' technology experience is positively correlated with their child's success in online learning. Parents with stronger technology skills tend to create a more supportive and effective learning environment for their children, leading

to better academic outcomes in online settings. Conversely, parents with limited technology experience may struggle to navigate online platforms and provide adequate support, potentially hindering their child's learning progress.

6. Recommendations

The study recommends that policymakers should implement strategies to reduce the digital divide caused by income disparities. This includes providing equitable access to technology and internet connectivity for all households, offering financial or material support to low-income families, and creating programs that ensure every child can participate fully in online learning. School administrators should identify students from lower-income families and provide targeted support, such as lending devices, subsidized internet access, or additional learning resources, to ensure inclusive participation in online learning initiatives.

The study recommends that school administrators provide training and resources to parents, particularly those with lower educational levels, to enhance their ability to support online learning. This may include workshops on using online learning platforms, guidance on establishing a structured home learning environment, and strategies for monitoring and supporting student progress. Schools should also facilitate peer-learning networks or parent support groups, allowing parents to share experiences and support one another, thereby fostering a more inclusive learning community.

The study recommends encouraging parents to improve their digital literacy and technology skills to better support their children's online learning. This can include attending training sessions, learning to navigate educational platforms, and actively participating in their child's online learning activities, such as reviewing assignments or, when possible, attending virtual classes. Schools can also provide tutorials or guidance materials tailored for parents with limited technology experience to help them support their children effectively.

References

Agaton, C. B., & Cueto, L. J. (2021). Learning at Home: Parents' Lived Experiences on Distance Learning during COVID-19 Pandemic in the Philippines. *International Journal of Evaluation and Research in Education*, *10*(3), 901-911. https://eric.ed.gov/?id=EJ1313094

Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, *49*(1), 5-22. DOI:10.1177/0047239520934018

Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, G., ... & Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education*, *15*(1), 1-126.

Cope, B., & Kalantzis, M. (2022). The changing dynamics of online education: Five theses on the future of learning 1. In *Foreign Language Learning in the Digital Age* (pp. 9-33). Routledge. DOI:10.13140/RG.2.2.25664.97287

Darko-Asumadu, D. A., & Sika-Bright, S. (2021). Parental involvement and pupils' academic performance in the cape coast metropolis, Ghana. *Open Education Studies*, *3*(1), 96-109. DOI:10.1515/edu-2020-0142

Emmanuel, J., & Ondiek, C. (2021). The Impact of Online Learning as Emerging Technology on Parents: Case Study of Parents of Primary School Children in Nairobi,

Kenya. *Journal of Language, Technology & Entrepreneurship in Africa*, *12*(2), 131-148. file:///C:/Users/User/Downloads/ajol-file-journals_353_articles_221694_submission_proof_221694-4213-542892-1-10-20220218.pdf

Herrera, S. G., Porter, L., & Barko-Alva, K. (2020). *Equity in school–parent partnerships: Cultivating community and family trust in culturally diverse classrooms*. Teachers College Press. https://www.researchgate.net/publication/342079314_Herrera_S_G_Porter_L_Barko-Alva_K_2020_Equity_in_school-parent_partnerships_Cultivating_community_and_family_trust_in_culturally_and_linguistically_diverse_classrooms_New_York_NY_Teachers_College_Pres

Karunakaran, S., Jusoh, M., & Chinna, K. (2019). Impact of Parents' Educational Qualifications on Students' Academic Performance in the Plantation-Sector Schools. *European Journal of Social Sciences Studies*. file:///C:/Users/User/Downloads/672-2677-3-PB.pdf

Masereka, B., Muhammad, T., & Rahim, A. (2023). Influence of Family Income Level on Academic Performance Among Secondary School Students of Kitswamba and Rugendabara-Kikongo Town Councils, Kasese District, Uganda. https://www.researchgate.net/publication/375293551_Influence_of_Family_Income_Level_on_Academic_Performance_Among_Secondary_School_Students_of_Kitswamba_and_Rugendabara-Kikongo_Town_Councils_Kasese_District_Uganda

McCarthy, E., & Guerin, S. (2022). Family-centred care in early intervention: A systematic review of the processes and outcomes of family-centred care and impacting factors. *Child: Care, Health and Development*, *48*(1), 1–32. https://doi.org/10.1111/cch.12901

Rasmitadila, R., Aliyyah, R. R., Rachmadtullah, R., Samsudin, A., Syaodih, E., Nurtanto, M., & Tambunan, A. R. S. (2020). The perceptions of primary school teachers of online learning during the COVID-19 pandemic period. *Journal of Ethnic and Cultural Studies*, *7*(2), 90-109. https://doi.org/10.29333/ejecs/388

Raudenská, P., & Hamplová, D. (2022). The Effect of Parents' Education and Income on Children's School Performance: The Mediating Role of the Family Environment and Children's Characteristics, and Gender Differences. *Polish Sociological Review*, *218*(2), 247–272. https://doi.org/10.26412/psr218.06

Reeves, S. (2021). *The Effect of Virtual Learning on Parents During Covid-19* (Doctoral dissertation, Andrews University). https://dx.doi.org/10.32597/theses/190/

Shagembe, M., & Mgonda, N. L. (2021). The Relationship Between Parents' Socio-Economic Status and Pre-schoolers' Cognitive Development in Tanzania. *Journal of Education, Humanities & Sciences*, *10*(6). https://www.researchgate.net/publication/364059424