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Wealth and Learning Achievement of Pupils in Primary Schools in Uganda: Implications for Government Economic Empowerment Programs

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Abstract: This paper examines the possession of family wealth and its impact on the academic achievement of primary school students in Eastern Uganda. A correlational survey design was employed to analyse UWEZO secondary data collected from eight districts in the eastern region of Uganda, encompassing 6,302 children and 6,031 families. Descriptive statistics and Pearson chi-square tests were employed for data analysis. The findings indicate that socio-economic factors positively influence children's literacy and numeracy achievements. Families possessing solar lighting, mobile phones, tables, chairs, textbooks, and a reliable source of water demonstrated higher proficiency in literacy and numeracy skills. It is likely that children in households with these possessions were able to engage in private study at home, given the conducive study environment, well-lit rooms, essential furniture, and access to textbooks. Furthermore, these children were more likely to receive additional tutoring after school and had access to the internet through mobile phones and computers, allowing them to access crucial educational information. Based on these findings, we recommend that the government provide sustainable livelihood options for struggling families.

Keywords: Family wealth, learning achievement, primary schools, economic empowerment.

1. Introduction

Primary school education worldwide provides the first step in a child's formal education and can greatly impact their perception of education as a crucial human need (Shirley et al., 2020). In many African countries, including Uganda, primary education is considered the foundation and most important level of formal education (Considine & Zappalà, 2018). Recognising the significance of primary education, governments have made significant efforts to ensure that children remain engaged and fully benefit from their educational experiences (McEwan, 2018). Various measures have been implemented to minimise distractions and sustain students' interest in primary education. For example, in the 1950s and 60s, there was a focus on enhancing teacher quality and competencies, as it was believed that teachers' conduct in the classroom was the most pivotal factor in maximising students' educational experiences (Scheerens, 2018). In later years, the role of learning infrastructure in providing quality learning outcomes and experiences in primary education was also recognised (Roussel et al., 2020).

In the 1990s, international initiatives such as Universal Primary Education (UPE) and the Education for All targets (EFA) were launched to ensure that all children, regardless of their socio-economic status, had access to quality education and positive learning experiences that amplified the benefits of the primary school curriculum (Ditsuwan & Ketkajorn, 2022). Many African countries, including

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Uganda, have implemented educational policies and provided substantial government funding to develop learning infrastructure and improve teacher competence (Scheerens, 2018).

Moreover, stakeholder participation has been encouraged to support students in achieving the desired learning outcomes. Stakeholders such as parents, guardians, and the community have been found to play a significant role in delivering widely accepted, effective, and democratic educational services (Ezeah & Clive, 2018). This aligns with the Stakeholders Theory, which suggests that public educational programs can succeed when implementers (government and schools) give key stakeholders (parents, guardians, and the community) the opportunity to influence decisions. In Uganda, parents and guardians are encouraged to actively contribute to their children's learning achievement. The Stakeholders Theory also assumes that key stakeholders, either as groups or individuals, can make substantial contributions to achieving program objectives (Mok et al., 2015).

This has been evident in the recent growing debate on the relationship between socio-economic background and the educational achievement of children (Yinusa & Basil, 2008; Basil, 2017). For example, there is a notion that schools alone may not significantly enhance students' academic outcomes beyond what they bring from home, and this idea is gaining traction (Bysenk & Locksoh, 2018). However, recognising the inequalities imposed on children by their homes, neighbourhoods, and peers may also undermine their future success in education and adulthood, and this topic is attracting more research attention worldwide (Baliyan et al., 2019). Therefore, it is now common to consider students' socio-economic background in studies on potential influences on academic achievement (Akhtar, 2018). However, information on how socio-economic background promotes educational achievement in primary pupils in a developing context like Uganda is still limited.

Since the inception of Universal Primary Education (UPE) in Uganda, there has been a strong emphasis on ensuring that primary school children fully benefit from their educational experiences. This emphasis was motivated by legislators and international bodies that fund education programs, thus calling upon the central government to be accountable for the substantial UPE budget (Lemuel et al., 2020). Starting in 2000, the government placed greater emphasis on improving teachers' quality, school infrastructure, and curricula to ensure that learners in primary schools receive a better education (Jell, 2019). The government of Uganda has also implemented other interventions, some of which are funded by international grants, such as the Strengthening Education Systems for Improved Learning (SESIL) program. Based on the M4R (Managing for Results) model, this program aims to improve learning experiences at the lower primary level and sustain children's interest in learning (MOES, 2018). Different stakeholders in the education sector in Uganda have been allowed to implement numerous mechanisms to promote learner education achievement. For example, parents, in particular, have been encouraged to use their available resources to contribute to their children's education by providing scholastic materials and supporting classroom construction (Omal, 2019).

Despite efforts, the failure of learners to acquire necessary learning competencies remains high, particularly in areas with lucrative socio-economic activities (UWEZO, 2016). The NAPE Report (2018) also revealed that lower primary pupils in the Eastern Uganda region had generally low learning achievements due to their involvement in attractive socio-economic activities such as fishing, sugar cane growing, and sand mining. According to the 2018 NAPE report, the reading proficiency of learners in Eastern Uganda was 44.2%, which is about 3 points lower than the national average of 47.4%. The report also discovered that pupils from districts in Eastern Uganda struggled to understand and interpret examination questions in the national Primary Leaving Examinations (Masembe, 2018). The Buikwe District Education Department Report (2020) revealed that a significant number of children completed primary education without obtaining basic literacy and numeracy skills, essential for further learning and independent living. The persistent low proficiency in key learning areas among pupils in areas with lucrative socio-economic activities necessitates an

investigation into the effects of family socio-economic characteristics, such as wealth, on the educational outcomes of primary learners.

1.1 Problem statement

The government of Uganda, together with international educational partners, has implemented numerous interventions to ensure that pupils fully benefit from primary education. These interventions include improved learning infrastructures, enhanced teachers' quality and competencies, regular school supervision, and provision of learning materials (MOES, 2019).

However, despite these measures, the majority of primary school learners in Eastern Uganda, especially in areas where lucrative socio-economic activities are common, continue to experience low academic achievement. Reports from NAPE (2018) and UNEB (2020) indicate that many pupils from this area struggle to interpret written material, answer exam questions correctly, and express themselves clearly both orally and in writing. The NAPE Report (2018) also revealed that reading proficiency in government-aided schools in Iganga, Namutumba, and Butaleja districts is below 45% among learners in lower primary. Additionally, the Minister of Education, in response to the results of the Primary Leaving Examination 2023 released by the Uganda National Examination Board, urged the general public not to ridicule the poor performance of PLE 2023 (Abet, 2024, 2024). These findings clearly indicate that the challenges affecting learners' achievements in the selected languages still persist to this day.

While school inspectors attribute this situation to a lack of parental support, there is limited research in the Ugandan context that explores the impact of families on the educational achievements of primary school learners in Eastern Uganda. If this issue is left unaddressed, the country runs the risk of having primary school graduates who are unable to earn a decent living, thus increasing the proportion of vulnerable groups and leading to a waste of public resources allocated to primary education. This situation calls for an examination of the link between the ability of families to provide a conducive educational environment and support, as demonstrated by their wealth, and the educational achievement of primary school pupils.

1.2 Purpose

This paper examines the social and economic characteristics of families (wealth) and their impact on the learning achievement of primary school students in Uganda. The objectives of this study are:

- To analyse the resources available within families that can be used to support children's educational attainment.
- To determine the correlation between family resources and students' achievement in reading and numeracy.

2. Literature Review

2.1 Theoretical review

This paper is based on the Socio-Ecological Theory (SET) advanced by Ostrom (1990). The SET theory perceives a child's environment as the centre for sustaining their educational achievement. The child's environment (school, family, community) is seen as having a system of actors who work together to enhance a child's motivation to engage in the learning provided by the school (Binder et al., 2013). Through collaboration, the school and family work together to enhance the learning gains of learners in primary education. The SET explains how the family (parents and guardians) can support and guide the child to enhance their educational achievement (Pianta et al., 2016). The theory also assumes that parents have defined roles and expectations in a child's life to support primary education effectively (Ditsuwan & Ketkajorn, 2022). When parents accept and fulfil these roles responsibly, the school system is sustainable and operates to achieve its aims. This theory is relevant in understanding how the socio-economic characteristics of the family can impact the academic

achievement of individual learners in the school system, specifically looking at literacy and numeracy results obtained by pupils in primary three.

The Socio-Ecological Theory is relevant to the present study as it sheds light on how families, particularly parents and guardians, can effectively collaborate with the school's guidance to enhance learners' educational achievements. The theory emphasises that individuals in a child's life, such as parents, have distinct roles and expectations aimed at providing meaningful support during primary education (Pianta et al., 2016). It assumes that when parents embrace and fulfil their designated roles responsibly, the school system becomes more sustainable and operates more efficiently to achieve educational objectives. Applying this theory is particularly appropriate in examining how the socio-economic characteristics of families can influence the academic achievements of individual learners, with a specific focus on literacy and numeracy results obtained by pupils in primary three.

2.2 Conceptual review

The key variables of this study were family wealth and learner achievement. In this paper, family wealth was perceived from a functionalist perspective. For example, Murdock (1949), a functionalist, defined a family as a social group consisting of individuals related by blood, adoption, or marriage characterised by common residences, economic cooperation, and reproduction. The family may include adults of both the father and mother, at least two of whom maintain a socially approved sexual relationship, and one or more children (Bogges, 2017). The key functions of the family include reproduction, sustenance, support relationships, and nurturing of children (Evans et al., 2019). The Constitution of Uganda, 1995, recognises the family as the "natural and basic nurturing and supportive unit of society that is entitled to protection by society and the state" (p.34). Thus, the family in Uganda plays a big role in the child's development and welfare through its child-rearing functions. Using their wealth, such as land, farm, employment, and income, families in Uganda support their children's education (Onzima, 2019). Hence, this paper considers the supportive role of the family in a child's education.

Family wealth is a result of the social, economic, and cultural status of the family (Usman et al., 2016). This variable is often measured as occupational status, income levels, and the highest level of parents' education (Yinusa & Basil, 2008; Basil, 2017). In this study, family wealth was perceived as possessions of the family that may reflect the likelihood of parents or guardians to provide academic support and an environment to enhance their children's educational achievement. The family possessions adopted from UWEZO (2021) dataset included a family having electricity, books, televisions, radios, computers, mobile telephones, a vehicle, motorcycle, bicycle, table and chairs, cattle, sheep/goats, cookers/ovens, a source of water, and toilet facilities.

Learner achievement is related to the overall educational benefits that learners accrue from an educational system (Scheerens, 2018). According to Ditsuwan and Ketkajorn (2018), the attributes of the school system, such as its learning outcomes, academic programs, and values, enhance the development of learners. The primary education school system is expected to support the development of basic skills, such as reading, writing, knowledge, and understanding of the world, and encourage learners to develop their own thinking and reasoning skills. Primary schools are also supposed to develop respect for individual differences, culture, and spirituality. In this paper, learner achievement was perceived as the development of the reading and numeracy skills of pupils.

2.3 Empirical review

The relationship between a student's socio-economic background and their educational achievement is widely recognised and significant (Ghaemi & Yazdanpanah, 2018). Multiple studies (Usman et al., 2016; Habibullah & Ashraf, 2017; Kakumbi et al., 2019) demonstrate that socio-economic status is associated with significant notable differences in educational performance across most countries. A meta-study conducted by Marks (2017) also revealed that students from higher socio-economic

backgrounds tend to outperform their disadvantaged peers by a large margin. While the strength of this relationship varies from very strong to moderate across different countries, it is consistently present in each country. In a study conducted by Evans et al. (2019) in Australia, students from the highest socio-economic background performed on average at a level approximately three years higher than their counterparts.

Although the contribution of socio-economic status to a child's educational achievement is widely accepted, its impact in developing contexts, such as Eastern Uganda, is still not fully understood. Evidence suggests that the relationship between socio-economic background and educational achievement is only moderate, and the effects of socio-economic status are relatively small when considering cognitive ability or prior achievement of children (Evans et al., 2019). Cognitive ability is also considered to be a genetic attribute, with schools having only a limited influence on its effects (Baranowska-Rataj et al., 2015). Others (Schmidt et al., 2017; Filmer & Pritchett, 2020) argue that students from low socio-economic backgrounds face disadvantages in schools due to a lack of supportive academic home environments, which can hinder their academic success. A study by Adhanja et al. (2016) found that the number and type of books in the home were among the most influential factors in students' achievement. Considine and Zappalà (2019) also observed that parents with higher socio-economic status are better positioned to provide their children with financial support and home resources for individualised learning. According to Kakumbi et al. (2019), parents with higher socio-economic status, who are more likely to have higher levels of education, also provide a more stimulating home environment that promotes cognitive development. Filmer and Pritchett (2020) found that parents from higher socio-economic backgrounds typically offer higher levels of psychological support for their children through supportive environments that encourage the development of skills necessary for success in school.

The impact of school-level socio-economic background on achievement is also gaining attention. For example, lower levels of educational resources may affect student achievement due to lower expectations from teachers and parents, as well as reduced levels of student self-efficacy and enjoyment (Nyakan & Yambo, 2016). Amoo et al. (2018) also note that lower socio-economic students have more limited opportunities to learn, particularly in mathematics, with systematically weaker content provided to lower-income students (Shen, 2017). According to a report by NAPE (2021), a survey conducted to identify hindering factors to learning progress in schools attributed other variables, such as home chaos (81.1%), casual labour (67.6%), lack of learning materials (13.5%), and loss of interest (10.8%), in addition to socio-economic status.

Without a clear understanding of these factors, schools can unintentionally worsen educational inequalities instead of reducing them. Therefore, it is crucial to gain a comprehensive understanding of the socio-economic characteristics of families that could impact a child's education.

3. Methodology

A correlational design was used to understand the magnitude and direction of relationships among the study variables (Bloomfield & Fisher, 2019). Descriptive and inferential statistics were employed to identify the relationships between family possessions and learners' achievement in literacy and numeracy. The study utilised secondary data from UWEZO (2021) from 112 out of 135 districts in Uganda (https://uwezouganda.org/publications/datasets/). Specifically, the study focused on eight districts in the eastern region: Kamuli, Mbale, Pallisa, Namisindwa, Bugiri, Namutumba, Kumi, and Kapchorwa. The study included a total of 6032 children from 6031 families, with 3127 boys and 3174 girls. The socio-demographic characteristics of the respondents were analysed using frequencies and percentages. The socio-economic indicators considered in this paper included the source of lighting, television, radios, computers, mobile phones, vehicles, bicycles, tables and chairs, cattle, books, cookers, type of toilet, motorcycles, and source of water. Descriptive statistics such as mean

and standard deviations were used to establish the status of family wealth and learner achievement. The association among the variables was analysed using the Pearson chi-square test.

The reliability and validity of the data in this study are crucial to ensure the trustworthiness and accuracy of the findings. The use of secondary data from UWEZO (2021), a reputable institution, enhances the reliability of the information as it has been collected systematically using established methodologies. The large sample size of 6032 participants from diverse socio-demographic backgrounds adds to the reliability of the study's results, providing a comprehensive representation of the population. Additionally, the study's focus on family possessions and learners' achievement in literacy and numeracy aligns with the theoretical framework, highlighting the content validity of the data. By employing well-established statistical measures such as descriptive statistics and the Pearson chi-square test, the study ensures the strength of its findings, contributing to both internal and external validity. The consideration of socio-economic indicators further reinforces the validity of the study by aligning with the research objectives.

The analysis in this study is based on secondary data obtained from the reputable institution UWEZO Uganda, which is accredited. The ethical clearance for this data collection, denoted by the reference number "SS959ES," was granted by the Uganda National Council for Science and Technology. This ensures that the original data collection adhered to ethical standards, including obtaining informed consent and upholding participant confidentiality. The acknowledgement of UWEZO Uganda's accreditation and the specific ethical clearance number from the Uganda National Council for Science and Technology underscores the commitment to ethical research practices and maintains the integrity of the study when utilising this secondary dataset.

4. Results and Discussion

Information on learners' achievements, family possessions that support educational attainment in reading and numeracy, and how the government can enhance the contribution of families towards children's educational attainment is provided in Tables 1-4.

In relation to pupil learning achievement, the results in Table 1 indicate that the mean reading score was .12 (SD=.32) and the mean numeracy score was 3.49 (SD=2.36). Overall, pupils performed well in both subjects, as indicated by the smaller standard deviations.

Table 1: *Descriptive statistics of learning achievement of pupils*

Statistic	Minimum	Maximum	Mean	SD
Combined weight	348.97	2009.16	845.84	311.26
District weight	.65	1.90	.99	.22
Reading	0	1	.12	.32
Numeracy	1	7	3.49	2.36

N=6302(M=3127, F=3174 mean age= 8.12, SD=4.58)

To respond to the first objective regarding family possessions, the results in Table 2 below show that the majority of households in Uganda had adequate resources such as tables, chairs, cows, sheep, books, water from boreholes, solar as the main source of light, and did not use slap pit latrines. It is worth noting that the smaller standard deviation of approximately 1.69 supports the idea that family possession of wealth significantly affects the academic performance of learners in the selected core disciplines of literacy and numeracy.

Table 2: *Family possessions*

Possessions	Mean	SD
Number of TVs	.10	.31
Number of Radios	.48	.56
Number of Computers in HH	.02	.20

Number of Mobile Telephones in HH	1.30	1.2
Vehicle	.03	.29
Number of Motorcycles in HH	.14	.51
Number of Bicycles in HH	.45	.62
Number of Table and chairs	4.81	3.62
Number of Cattle in HH	1.00	1.69
Number of Books	1.27	3.24
Number of Sheep/goats	1.34	2.13
Number of Cookers/Ovens	.12	1.08
MAIN source of water for the Household?	Borehole (58.2%)	
MAIN Source of lighting used in the house	Solar (41.5%)	
Main type of toilet used	No slab pit (59.8%)	

N=6031 households

To respond to the second objective, we used the chi-square test of independence to establish the relationship between family possession and children's learning achievement, as shown in Table 3. The p-value being lower than 0.05 indicates a positive association between a specific possession and learners' achievement.

Table 3: *Relationship between Family Possessions and children's numeracy*

Possession	Chi-square	Df	P-value
Lighting	65.12	24	.001*
Television	45.13	18	.000*
Radios	75.58	24	.000*
Computers	33.45	12	.001*
Mobile phones	209.66	60	.000*
Vehicle	26.43	18	.090*
Motorcycle	50.97	24	.001*
Bicycle	79.76	30	.000*
Tables and chairs	214.91	126	.000*
Cattle	127.66	84	.002*
Books	203.93	102	.000*
Cooker	110.53	90	.070*
Source of water	122.02	48	.000*
Type of toilet	126.02	45	.000*

Key; p<.01**, p<.05*

The findings in Table 3 show that learners' achievement in numeracy had a positive interaction with all 14 possessions that were assessed, with the exception of Vehicle $X^2(18) = 26.43$, $p>0.05$ and cooker $X^2(90) = 110.53$, $p>0.05$. This implies that overall, family wealth has a positive impact on learners' educational achievement in numeracy. This conclusion is supported by the p-value being less than 0.05, unlike the case of the motorcycle, which has a p-value of 0.126. Other family possessions, such as sources of lighting, television, radios, computers, mobile phones, bicycles, tables and chairs, cattle, books, types of toilets, and sources of water, also showed a positive interaction with learners' achievement in numeracy.

Table 4: *Relationship between Family Possessions and children's reading and comprehensions*

Possession	Pearson Chi-squar	Df	P-value
Source of Lighting	38.60	4	.000*
Television	23.22	3	.000*
Radios	11.41	4	.022*
Computers	8.45	2	.015*

Mobile phones	91.72	10	.000*
Vehicle	10.74	3	.013*
Motorcycle	7.18	4	.126*
Bicycle	14.06	5	.015*
Tables and chairs	115.71	21	.000*
Cattle	34.8	14	.002*
Books	58.89	17	.000*
Cooker	5.65	7	.58*
Source of water	23.86	8	.002*
Type of toilet	23.45	9	.001*

Key; p<.01**, p<.05*

In connection to the relationship between family possessions and children's reading and comprehension, findings in Table 4 show that children's achievement had a positive interaction with all 14 possessions that were assessed, except for motorcycle $X^2(4) = 7.18$, $p>0.05$ and cooker $X^2(7) = 5.65$, $p>0.05$. This implies that overall family wealth has a positive impact on children's educational achievement in reading and comprehension. This is supported by the p-value being less than 0.05, unlike the motorcycle, which has a p-value of 0.126. The other family possessions, including but not limited to the source of lighting, television, radios, computers, mobile phones, vehicles, bicycles, tables and chairs, cattle, books, cooker, type of toilet, and source of water, also had a positive interaction.

5. Discussion

As per the first objective of the study, this finding is consistent with several scholars (Alamsyah et al., 2022; Almaiah & Al-Khasawneh, 2020; Eli-Chukwu et al., 2023; Ismail et al., 2020; Rahman et al., 2022; Rajchelt-Zublewicz et al., 2019; Saleh et al., 2022) who revealed that tangible resources have a significant relationship with e-learning in schools. However, the finding was inconsistent with Masood et al. (2019), who reported that tangible resources had no impact, and Rajchelt-Zublewicz et al. (2019), who reported a weak correlation. Nonetheless, since the finding is consistent with most previous scholars, it can be affirmed that family wealth possession has a significant influence on the learning achievement of pupils in primary schools.

Furthermore, the study identified the following household resources such as tables, chairs, cows, sheep, books, water from boreholes, and solar as the main sources of light, and found that these resources act as enablers in supporting learners' achievement in schools. This has also been pointed out by Kyomuhendo et al. (2024), who emphasised that school resources enhance learning. In this research, the focus was on family wealth possession as a panacea to learners' achievement in primary schools. However, Jez (2008) opposed this view by stressing that wealthier students are much more likely to attend a four-year college than their less wealthy peers. The influence of wealth is essentially eliminated once we consider academic achievement in colleges, where habitus and social and cultural capital play a bigger role. Nevertheless, with the study largely concurring with previous scholars, especially in primary schools, it can be affirmed that family wealth possessions have a positive and significant influence on learners' achievement in primary schools.

6. Conclusion and Recommendations

A stable socio-economic status of the family is relevant to children's achievement in primary education and in realising the learning objectives. Therefore, the educational achievement of primary school children depends on the family's wealth and resources dedicated to supporting their education. Consequently, establishing socio-economic empowerment programs for struggling families can increase their ability to provide a supportive learning environment, ultimately enhancing their children's achievement in literacy and numeracy. Families with a good socio-

economic status feel empowered and consequently become actively involved in their children's educational activities. Therefore, in order for primary education programs to achieve their goals and objectives and lead to quality education and better life skills development in children, the government must ensure that families have sustainable sources of livelihood. Based on this, the following recommendations were made:

- The Ministry of Education and Sports must innovate strategies to enhance the active involvement of parents in their children's education.
- The Ministry of Education and Sports should develop a variety of initiatives to empower parents and improve their family's wealth, enabling them to support their children's education.
- There is also a need to determine what kind of support stakeholders need: information, consultation, involvement, collaboration, empowerment, or all of these.
- The Ministry of Education and Sports should find ways to empower parents and guardians to improve learner achievement in primary schools in Eastern Uganda.
- There is a need for collaboration between the government and development partners to work out, introduce, and implement sustainable economic activities in order to alleviate poverty in the region.
- This study only focused on government-aided primary schools. Future research may include a study in privately owned primary schools.

7. Limitations of the Study

Although the research results greatly contribute to the body of knowledge, their application has some limitations. The study sample was limited to only eight districts in the subregion, so the range of perspectives and experiences was not broad enough. It is recommended that a more diverse sample be included in future research.

8. Declarations

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