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The Role of Formal Education for Poverty Reduction and Development in the Digital Era: A Study of Sogakope, South Tongu District, Ghana

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ABSTRACT

Bridging the gap between poverty and advancement, formal education plays a transformative role in economic and social development in the digital era. The study explores the role of formal education in poverty reduction and community development in the South Tongu District, Sogakofe, Ghana. It examines indigenous perceptions of education's impact on poverty reduction and the relationship between household income and children's educational achievement. The study has used a mixed methods approach. The study has collected quantitative data through Likert scale questionnaires and qualitative data from key informant interviews. With a sample size of 80, findings reveal a strong agree that formal education significantly contributes to poverty reduction, improved employment opportunities, and enhanced social and cultural development. In the digital era, access to quality education, including digital literacy and technological skills, is increasingly critical for economic mobility. Respondents acknowledged that well-educated individuals foster social cohesion and economic growth. Household income plays a decisive role in educational success, as financial constraints hinder access to quality education. In the digital era, integrating technology in education can bridge socio-economic gaps, enhance learning outcomes, and drive sustainable development. Policymakers must prioritize digital inclusion in education to break the poverty cycle and ensure long-term prosperity.The contribution of this research expands the knowledge of the relationship between education and poverty reduction. In addition, it offers practical insights for designing effective interventions and policies in local and international contexts in the era of digital education.

Keywords: Formal Education, Poverty Reduction, Community Development, Empowerment, Digital Era

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1. INTRODUCTION

In the digital era, formal education plays a strategic role in equipping individuals and communities with the skills, knowledge, and digital literacy needed to thrive in the professional sphere. In addition, in the era of digital education, formal education is expected to open access to better economic opportunities and provide provisions for improving the quality of life of individuals and communities. Mhlanga & Moloi, (2020) and Barakabitze et al. (2019), formal education that utilises digital tools is expected to expand access to education, especially for people in remote areas. Aparicio Gómez (2020) added that formal education utilising technology is expected to minimise geographical barriers so every individual has the same opportunity to learn and develop.

Formal education that utilises technology is expected to encourage individual progress to innovate, think critically (Ghory & Ghafory, 2021), and have entrepreneurial skills (Bauman & Lucy, 2021). These

factors are steps in efforts to break the chain of poverty. The educated young generation based on technology has great potential to create creative solutions to global challenges and contribute to sustainable development. To realise this young generation, significant investment is needed in aspects of equitable digital infrastructure, affordable internet access, and an inclusive curriculum relevant to the technological era's needs. With collaboration between the government, private sector, and society, formal education in the digital era is expected to create a prosperous and competitive society.

South Tongu District, situated in the Volta Region of Ghana, stands as a microcosm of the broader challenges and opportunities facing rural districts in the country. This area, with its capital Sogakofe, is marked by a vibrant cultural heritage and a predominantly agricultural economy. Despite its potential, South Tongu faces significant developmental challenges, particularly in terms of poverty and educational attainment. The district's economic landscape is primarily composed of smallholder farming, with a notable dependence on subsistence agriculture (Ghana Statistical Service, 2018). The reliance on agriculture, while vital for livelihoods, has implications for income stability and economic growth. According to Akpan & Zikos (2023) and Obodai et al. (2023), agricultural sectors in similar regions often struggle with low productivity and limited access to markets, which can perpetuate poverty cycles. Education in South Tongu has been a focal point for development, reflecting a broader national trend in Ghana. The Ghanaian government, recognizing the transformative potential of education, has invested in numerous educational policies aimed at increasing access and improving quality. However, the district's educational infrastructure and outcomes still lag behind national averages, indicating a need for targeted interventions (Ghana Statistical Service, 2018).

The socio-economic status of the district is further complicated by its demographic profile. As per the Population and Housing Census, South Tongu has a significant proportion of its population under the age of 15, underscoring the need for robust educational policies to cater to this young demographic. Moreover, the district's poverty rates, while having seen some improvement over the years, remain a concern, as highlighted in the Poverty Profile in Ghana report by the Ghana Statistical Service (2018).

1.1. Problem Statement and Rationale for the Study

The nexus between education and poverty reduction has been well-established in the literature. As Aregbeshola (2022) and Medeiros et al. (2020) assert, education is a critical form of human capital investment, capable of influencing individual income levels and, by extension, poverty rates. This assertion is supported by empirical studies, such as those by Brown & James (2020) and Hofmarcher (2021), which demonstrate a positive correlation between educational attainment and poverty reduction. In the context of South Tongu, this relationship becomes particularly pertinent. The district, with its dependence on agriculture and low educational outcomes, presents a compelling case for examining how education can be leveraged to break the cycle of poverty. Studies such as those by Ninh (2021) and Knight et al. (2010) illustrate the transformative effect education can have in rural, agriculture-dependent economies.

However, there is a gap in understanding the specific dynamics of this relationship in South Tongu. While national policies and interventions have been studied extensively (e.g., Ikejiaku et al. (2018)), there is a dearth of localized research focusing on the unique challenges and opportunities within the district. This gap is critical, as local contexts can significantly influence the efficacy of educational policies and their impact on poverty reduction (Abaidoo, 2021; Gounder & Xing, 2012).

Furthermore, the perception of education's role in poverty alleviation among the inhabitants of South Tongu remains understudied. Understanding local perceptions is crucial, as it can influence policy implementation and effectiveness. Studies such as Godinot & Walker (2020) emphasize the importance of incorporating local voices and experiences in educational policy design and poverty reduction strategies.

1.2. Research Objectives and Questions

Given this backdrop, the study aims to address several key objectives. First, it seeks to evaluate the perception of South Tongu District residents regarding the role of formal education in poverty reduction. Second, the study will investigate the relationship between household income and educational attainment within the district. Finally, it aims to establish the role of formal education in fostering community development.

These objectives lead to the following research questions: How do residents of South Tongu District perceive the role of formal education in alleviating poverty? What is the relationship between household income levels and the educational achievements of children in the district? Additionally, what role does formal education play in community development? By exploring these questions, the study seeks to contribute to the broader understanding of the role of education in poverty reduction, with a specific focus on the unique context of South Tongu District, Ghana.

1.3. Significance of the Study

The study will be of significance in highlighting the importance of formal education among citizens in the study area. The findings will help educate household heads on the importance of educating their

wards as a means of reducing poverty in their families and the community as a whole. The result will inform educational policy formulation on how to develop relevant educational policies to encourage and promote formal education particularly in our rural and peri-urban communities to increase school enrollment, develop adequate local human capital, and therefore break the cycles of poverty which have become self-perpetuating in our rural their communities across the country. This study will also serve as an additional source of literature that will guide similar future studies in Ghana and elsewhere.

1.4. Literature Review

The nexus between formal education, poverty reduction, and community development is deeply rooted in the theory of human capital, as expounded by scholars like Olopade et al. (2019) and Attanasio et al. (2022) This theoretical framework posits that education enhances an individual's productive capabilities, leading to higher income levels and improved living standards, thereby contributing to poverty alleviation (Lei et al., 2021). Habibi & Zabardast (2020) and Zafar et al. (2021), further elaborate on this by highlighting the role of education in fostering technological advancements and economic growth.

In the context of community development, education is seen as a catalyst for social change. As Parasvat et al. (2024) argue, education not only equips individuals with skills and knowledge but also fosters social cohesion and civic engagement, essential for community development. Roche et al. (2020) reinforce this by linking educational attainment with enhanced community participation and empowerment.

Research carried out in developing nations has indicated that education plays a role in mitigating poverty; nevertheless, the full advantages of education are not achieved in these regions because of substandard education. For instance, Abaidoo (2021) reviewed that substantial rural structural barriers exist in Iran, which impede the effectiveness of education in reducing poverty in rural areas. These barriers include insufficient teaching and learning resources, as well as instructors' lack of experience and expertise. It has been determined that education and the likelihood of poverty are inversely correlated in Turkey. More education specifically makes household heads less likely to be impoverished, but vocational and technical training was proven to be a more effective means of alleviating poverty than high school. In Turkey, the likelihood of being impoverished has also been found to be negatively correlated with the age of household heads (Aksoy et al., 2019; Dogan et al., 2021).

Furthermore, research from Sub-Saharan Africa has yielded results that are comparable to those from developing nations. Ogundari & Aromolaran (2014) evaluated the effect of education on household welfare in Nigeria using the Double Hurdle (DH) and Quantile Regression (QR) models. They discovered that, in comparison to elementary and secondary education, returns on education are significantly higher at the tertiary level. It was shown that household heads in South Africa who have completed primary school are 6.7% less likely to be impoverished, those who have completed secondary education are 20.76% less likely, and those who have completed post-secondary education are 37.19% less likely. Once more, it was discovered that Black people, those living in rural areas, and female heads were more susceptible (Mdluli & Dunga, 2022). Similar findings were reported by Njong (2010) using data from the Cameroonian 2001 Household Survey and logistic regression analysis. It was observed that a person's level of education and work experience lowers their likelihood of being poor, but a man's level of education significantly affects this decrease more than a woman's does. Once more, Ochieng & Yeonsung (2021) stated that only getting kids into school is insufficient to reduce poverty. The study's conclusions demonstrated that Tanzania's educational system has suffered, which has prevented all of education's advantages from being realized.

1.5. Previous Research Findings in Similar Contexts

Several studies have empirically tested the relationship between education, poverty, and community development. Addai-Boateng (2019) focused on the Ada East District of Ghana, concluding that education significantly contributes to poverty reduction through enhanced employment opportunities and income levels. Similarly, Amar & Pratama (2020) found a positive correlation between education and poverty alleviation in their study spanning multiple countries.

In rural contexts, the impact of education on poverty reduction is even more pronounced. Aruleba & Jere (2022) demonstrated that in rural areas, where economic opportunities are often limited, education can be a critical tool for breaking out of poverty. This is echoed in the work of Tang et al. (2022) in rural China, where education was found to be a key determinant in lifting households out of poverty. Studies have also examined the relationship between parental income and children's educational outcomes. Cooper & Stewart (2021) reviewed that higher household income positively influences children's access to education and academic performance. Ilie et al. (2021) and Tighe & Davis-Kean (2021) highlighted the challenges faced by children from lower-income households in accessing quality education.

Addai-Boateng (2019) evaluated poverty and development in Ghana: the contribution of education to poverty alleviation using the Ada East area as a case study. Using a mixed research methodology, 85 randomly chosen homes from five communities were included in the study. It was found that nearly all of the respondents (91.8%) agreed that one way to fight poverty is through education. The respondents did reveal, though, that if educational quality is raised, the purpose of using education as a tool to reduce poverty

would remain viable. In a similar vein, Dzidza et al. (2018) concluded that Ghana's poverty rates are always influenced by educational attainment.

1.6. Gaps in the Existing Literature

Despite the extensive research on the role of education in poverty reduction and community development, there are notable gaps, particularly concerning localized contexts like the South Tongu District. Most studies have adopted a macro-perspective, focusing on national or regional levels. This overlooks the nuanced dynamics at the district or community level, which are crucial for understanding and addressing local educational and poverty-related challenges.

Furthermore, there is a lack of studies that integrate both quantitative and qualitative approaches to explore this relationship. While quantitative studies like those by Paul (2019) and Awan & Malik (2020) provide statistical evidence of the impact of education on poverty, they often miss the rich insights that can be gained from qualitative data, such as local perceptions and experiences. This is critical, as local perceptions can significantly influence the success of educational policies and initiatives. Moreover, the existing literature primarily focuses on the direct impacts of education on poverty, such as through income and employment (Apergis et al., 2022). There is a scarcity of research exploring the broader social impacts of education, such as its role in fostering social cohesion and civic engagement, which are vital for sustainable community development.

Furthermore, although the connection between children's academic success and household wealth has been studied, little study has been done expressly to look at this relationship in the Ghanaian setting, particularly in districts like South Tongu. Studies such as those by Bilenkisi et al. (2015) provide valuable insights, but they do not fully capture the unique socio-economic and cultural factors influencing this relationship in Ghanaian rural districts. In conclusion, while the literature establishes a strong link between education, poverty reduction, and community development, there is a need for more localized, comprehensive studies that combine quantitative and qualitative methods to fully understand and address the specific challenges and opportunities in areas like South Tongu District. Such studies would not only contribute to the theoretical understanding of these relationships but also provide practical insights for policymakers and stakeholders in designing and implementing effective educational policies and programs.

1.7. Conceptual Framework

The study has two sets of variables namely acquisition of formal education (human capital development) on one hand and poverty reduction. Through formation, individuals can employable skills, acquire higher market value, access more opportunities, and are therefore able to attract and earn higher income. This higher level of income as a result of formal education ultimately leads to poverty reduction as the individual becomes economically empowered and thus able to meet his or her necessities of life. As discussed in the literature review, formal education is a very important tool for unlocking doors of endless opportunities which ultimately leads to poverty reduction and improvement in the living conditions of the individual. The variables are presented in Figure 1.

Figure 1. Conceptual Framework Depicting Relationship between Formal Education and Poverty Reductions (Source: Author's own Construct, 2023)

2. METHOD

The study employs a mixed-method approach, integrating both quantitative and qualitative research methodologies. This approach is designed to provide a comprehensive understanding of the role of formal education in poverty reduction and community development in the South Tongu District.

Quantitatively, the study uses structured questionnaires to collect numerical data, enabling the analysis of patterns and relationships between variables such as educational attainment, household income, and perceptions of poverty reduction. Qualitatively, key informant interviews were conducted to gain deeper

insights and contextual understanding of the quantitative findings. This combination allows for a more nuanced exploration of the topic, as recommended by Lune & Berg (2017).

2.1. Sampling Methods and Sample Size Justification

The study adopts a stratified random sampling method, ensuring a representative cross-section of the South Tongu District's population. This method allows for the inclusion of various demographic groups, enhancing the generalizability of the findings. Considering the scope and resources available for this study, a sample size of 80 is deemed appropriate to balance thoroughness and manageability. Data collection was conducted using two primary instruments: Likert scale questionnaires and semi-structured interviews. The questionnaires comprise closed-ended questions, allowing respondents to express their perceptions on a scale, typically ranging from strong agreement to strong disagreement.

The semi-structured interview, on the other hand, was designed to gather qualitative data from key informants, including educators, community leaders, and local government officials. These interviews provide an opportunity to delve deeper into the issues identified in the questionnaires, offering a more detailed and personal perspective on the role of education in the community, as advocated by Knott et al. (2022).

2.2. Analytical Methods

Statistical methods were applied to assess the quantitative data obtained from the questionnaires. To summarize the data, descriptive statistics was used, such as means and standard deviations. Correlation analysis and other inferential statistics were utilized to investigate the associations between variables such household income, educational attainment, and attitudes toward reducing poverty. For the qualitative data from the interviews, a thematic analysis is conducted. This involves coding the data and identifying recurring themes and patterns, as described by Naeem et al. (2023). This analysis provides a deeper understanding of the contextual factors and personal experiences that shape perceptions and realities regarding education and poverty in the South Tongu District.

By employing this mixed-method approach, the study aims to offer a holistic understanding of the impact of formal education on poverty reduction and community development in the South Tongu District. This methodology aligns with the research objectives and questions, providing a robust framework for exploring the complex interplay between education, poverty, and community dynamics.

3. RESULTS AND DISCUSSION

3.1. Socio-Demographic Characteristics of Respondents

Results from the study on the socio-demographic characteristics of respondents showed that the age group of 18-24 represents 10% (n=8) of the respondents, and the age group of 25-34 represents the largest proportion at 38.8% (n=31) of respondents, whilst the age groups of 35-44 and 45-54 constitute 16.3% (n=13) and 21.3% (n=17) of the respondents, respectively. Additionally, respondents aged 55 and above account for 13.8% (n=11) of respondents. In terms of the age characteristics of respondents, Figure 4.1 indicates that males represent 55% (n=44) of the respondents whilst females constitute 45% (n=36) of the respondents.

Again, the results show that the highest percentage of respondents, 38.8% (n=31), have completed tertiary education, 32.5% (n=26) of the respondents have completed secondary education. In addition, 10% (n=8) of the respondents have completed primary education, and 15% (12) have no formal education whilst the data also reveals that a small percentage (3.8%, (n=3)) of respondents have completed Masters Level of education. Additionally, the study reveals that 45% (n=36) of the respondents are currently employed, 17.5% (n=14) of the respondents are self-employed and 26.3% (n=21) of the respondents are unemployed. Moreso, the data shows that 7.5% (n=6) of the respondents are retired whilst 3.8% (n=3) of the respondents are part-time workers. Also, Table 4.1 indicates that 43.8% (n=35) of the respondents have a monthly household income below Gh.1,000.00, and 10.0% (n=8) of the respondents earn a household income of between Gh. 1,000.00-1,500.00, whilst 38.8% (31) of the respondents fall within the income range of Gh.1,501.00-2,000.00. In addition, a small percentage of respondents (7.7% (n=6)) have a monthly household income in the range of Gh. 2,000.00-3,000.00.

3.2. Perceptions of Residents about the Role of Formal Education in Poverty Reduction

From the study, results show that the largest percentage of respondents, 55.0% (n=44), strongly agree that formal education plays a significant role in reducing poverty whilst 36.3% (n=29) of the respondents agree with the statement. On the other hand, a small percentage (6.3% (n=5)) and 2.5% (n=2) of respondents disagreed and strongly disagreed respectively with the statement. In an interview, the Assistant Head of Administration noted that despite the relevance of formal education, some parents are unable to send their wards to school and adequately provide their basic school needs, adding that this is a challenge in the community. He further added: "*Formal education is very important for poverty reduction as it enables individuals to acquire knowledge and skills which helps in income generating activities and thus helping to generate employment, income and ultimately poverty reduction*".

Formal education equips individuals with knowledge, skills, and qualifications that increase their employability and income-earning potential. By acquiring education, individuals gain access to better job opportunities, higher-paying jobs, and improved economic prospects, which can help them escape poverty, and improve income levels leading to the overall improvement of the socioeconomic living conditions of people. From the study, 46.3% (n=37) and 41.3% (n=33) of the respondents strongly agreed and agreed respectively that access to quality formal education can lead to better employment opportunities and higher income levels. On the other hand, 10.0% (n=8) and 2.5% (n=2) of the respondents disagreed and strongly disagreed with the statement, suggesting a dissenting view regarding the impact of education on employment and income.

3.3. Household Income and Educational Achievement of Children

The results shows that 62.5% (n=50) and 25.0% (n=20) of the respondents strongly agreed and agreed respectively that children from households with higher income levels have better educational opportunities. However, 6.3% (n=5) and 2.5% (n=2) of the respondents disagreed and strongly disagreed respectively with the statement, suggesting a differing view regarding the impact of household income on educational opportunities. In addition, 3.8% (n=3) of the respondents remain neutral, indicating that they neither strongly agree nor disagree with the statement.

The data shows that 50.0% (n=40) and 37.5% (n=30) of the respondents strongly agreed and agreed that the financial resources available to parents significantly impact their children's educational achievement. However, 2.5% (n=2) and 6.3% (n=50) of the respondents disagreed and strongly disagreed respectively with the statement, suggesting a differing view regarding the impact of financial resources on educational achievement. Again, the result shows that 3.8% (n=3) of the respondents remain neutral, indicating that they neither strongly agree nor disagree with the statement.

Findings from the study indicate that 52.5% (n=42) and 17.5% (n=14) of the respondents strongly agreed and agreed respectively that children from lower-income households face more barriers to accessing quality education. On the other hand, 16.3% (n=13) and 2.5% (n=2) of the respondents disagreed and strongly disagreed respectively with the statement, suggesting a differing view regarding the extent of barriers faced by children from lower-income households in accessing quality education. In addition, 11.3% (n=9) of the respondents remained neutral, indicating that they neither strongly agree nor disagree with the statement.

Again, the results of the study show that 46.3% (n=37) and 41.3% (n=33) of the respondents strongly agreed and agreed respectively that the lack of financial resources limits the educational opportunities and outcomes of children. However, 2.5% (n=2) and 6.3% (n=5) of the respondents disagreed and strongly disagreed respectively with the statement, suggesting a differing view regarding the extent to which the lack of financial resources limits educational opportunities and outcomes, whilst 3.3% (n=3) of the respondents were neutral, indicating that they neither strongly agree nor disagree with the statement.

Table 1. Pearson Correlation Between Household Income and Level of Education

		Highest Educational Attainment Within the Household	Monthly Household Income?
Highest educational attainment within the household	Pearson Correlation	1	0.849**
	Sig. (2-tailed)		0.000
	N	80	80
Monthly household income?	Pearson Correlation	0.849**	1
	Sig. (2-tailed)	0.000	
	N	80	80

Table 2. Spearman Correlation Between Household Income and Level of Education

			Highest Educational Attainment Within the Household	Monthly Household Income?
Spearman's rho	Highest educational attainment within the household	Correlation Coefficient	1.000	0.851**
		Sig. (2-tailed)		0.000
		N	80	80
	Monthly household income?	Correlation Coefficient	0.851**	1.000
		Sig. (2-tailed)	0.000	
		N	80	80

**. Correlation is significant at the 0.01 level (2-tailed).

Table 1 shows that Pearson ($r = 0.849$, $p < .001$) and Table 2 shows that Spearman ($\rho = 0.851$, $p < .001$) correlations indicate a strong positive relationship between educational attainment and household income. These results are statistically significant at the 1% level, highlighting the reliability of the observed association.

The study supports the conclusions drawn from earlier research, which show that education is essential for both economic expansion and the eradication of poverty. Investments in education and the development of human capital have a major role in the economic development of East Asian nations, as Hanushek & Woessmann (2020). This is supported by the current data, which demonstrate that household educational attainment corresponds with income levels, highlighting the role that education plays in promoting economic uplift.

Addai-Boateng (2019) argued that education fights poverty in two ways. First, it leads to more money directly by giving people better job options and higher salaries. Second, it helps people live better lives indirectly by improving their overall standards of living. The strong connection seen in this study's results backs up this two-pronged effect. More education likely means people can get better jobs and earn more, directly increasing their household income. This in turn allows them to improve their quality of life overall.

Studies have shown that education plays a key role in lifting people out of poverty. Supported by Halliday et al. (2019), Education helps people understand themselves better, which can improve their overall well-being. It also equips them with the skills needed to embrace new technologies and even start their businesses. This text supports this idea by showing a clear link between education levels and household income, suggesting that more education leads to more money.

The study highlights the importance of formal education for both individuals and communities. People involved in the research agreed that education unlocks better jobs and higher incomes, which aligns with the strong positive connection seen in the data analysis. This double confirmation strengthens the idea that education has a wide-ranging impact, lifting communities out of poverty and improving their overall social and economic well-being.

3.4. The Role of Formal Education for Community Development in the Digital Era

Results from the study show that 36.3% (n=29) and 43.8% (n=35) of the respondents strongly agreed and agreed respectively with the statement that formal education plays a crucial role in improving infrastructure and facilities in the community. On the other hand, 10.0% (n=8) and 6.3% (5) of the respondents disagreed and strongly disagreed with the statement, suggesting a differing view regarding the extent to which formal education impacts infrastructure and facilities in the community, whilst 3.8% (3) of the respondents were neutral. In this respect, the Assistant Head of Administration of the Sogakofe Senior High School stated that:

"*The community should ensure a friendly and congenial atmosphere for educational workers and annual motivational packages for teachers such decent accommodation facilities for teachers and also the community protecting teachers against attack by some irresponsible parents who often attack teachers to try to discipline their wards*".

In addition, 43.8% (n=35) and another 43.8% (n=35) of the respondents strongly agreed and agreed respectively with the statement that access to quality formal education enhances the overall social and cultural development of the community. However, 6.3% (n=5) and 2.5% (n=2) of the respondents disagreed and strongly disagreed respectively with the statement, suggesting a differing view regarding the extent to which access to quality formal education impacts social and cultural development whilst 3.8% (n=3) were neutral. In an interview, the Assistant Head of Administration of the Sogakofe Senior High School again noted among other things that:

"*The South Tongu District is unique in terms of its culture and water bodies. One cannot decouple culture from formal education. The Tortsogbe festival and the history of the ancestors must be taught in the schools. School children must also be taught how to cultivate the water bodies to create employment opportunities, generate income, and enhance the overall social and cultural development of the district*".

In terms of community participation in development, the results in Table 4.9 show that 45.0% (n=36) and 40.0% (n=32) of the respondents strongly agreed and agreed with the statement that formal education promotes civic engagement and active participation in community development initiatives. Also, 8.8% (n=7) and 2.5% (n=2) of the respondents disagreed and strongly disagreed respectively with the statement, with 3.8% (n=3) of the respondents remaining neutral.

Furthermore, results from the study show that 42.5% (n=34) and 37.5% (n=30) of the respondents strongly agreed and agreed respectively that the knowledge and skills acquired through formal education contribute to the economic growth and prosperity of the community. However, 8.8% (n=7) and 6.3% (n=5) of the respondents disagreed and strongly disagreed with the statement, suggesting a differing view regarding the direct impact of formal education on economic growth and community prosperity with 5.0% (n=4) of the respondents remaining neutral, indicating that they neither strongly agree nor disagree with the statement. When asked to give an instance where formal education has significantly contributed to the development of the community, the Head of Administration of the Sogakofe Senior High School states:

"*Mr. Mensah, a resident of the community successfully became a pharmacist through formal education. He built modern housing units for his parents and also provided a minibus to convey all children to and back from school every day. He also provided the funds to connect his community to the national grid*".

He further noted:

"*Such instances are commonplace in the community and this is helping to develop the local economy and the community. There is a need to explore the use of modern technology in formal education delivery to make education meet the needs of the current generation. This will help maximize the impact of formal education on community development in the South Tongu District*"

In addition, the result shows that 63.8% (n=51) and 21.3% (n=17) of the respondents strongly agreed and agreed respectively that the presence of well-educated individuals positively influences the community's social cohesion and harmony. On the other hand, 5.0% (n=4) and 6.3% (n=5) of the respondents disagreed and strongly disagreed with the statement, suggesting a differing view regarding the direct impact of well-educated individuals on social cohesion and harmony whilst 3.8% (n=3) of the respondents were neutral. As a result of this positive role of formal education, there are partnerships and collaborations between educational institutions and other institutions such as NGOs, and the District Assembly. He added that these partner institutions often identify the needs of children from poor homes and support them to stay in school. This, according to him is helping to promote formal education in the district.

Moreso, the results show that 52.5% (n=42) and 35.0% (n=28) of the respondents strongly agree that increasing investment in formal education is essential for the sustainable development of the community. However, 2.5% (n=2) and 6.3% (n=5) of the respondents disagreed and strongly disagreed respectively with the statement whilst 3.8% (n=3) of the respondents were neutral. To use formal education as a catalyst for community development, the Assistant Head of Administration of the local District Assembly, there was needs to adequately provide the necessary educational logistics such as appropriate teaching and learning materials, adequate and conducive teaching and learning environment, and more importantly, policies for teacher motivation. To him, these will ensure that formal education effectively contributes to the development of the community.

3.5. Discussions

This study focuses on the role of formal education in poverty reduction and development in Sogakofe in the South Tongu District of the Volta Region of Ghana. Overall, the data shows that respondents' perceptions of the important role that formal education plays in fostering community development and decreasing poverty are usually positive. There is broad confidence in the transformational effect of education, as evidenced by the majority of responders who either strongly agree or agree with the statement. This alignment in opinion supports the importance of educational initiatives and interventions in poverty reduction strategies and underscores the potential of education to contribute to socio-economic development. This is consistent with the findings of Gounder & Xing (2012), who found that formal education had a considerable impact on household income levels and community development. These additional abilities are learned through formal education. In the same vein, Addai-Boateng (2019) found that nearly all respondents (91.8%) acknowledged education as a tool for community development and poverty reduction in a survey conducted in the Ada East area to analyze poverty and development.

Again, the study indicates a majority agreement among the respondents that children from households with higher income levels have better educational opportunities. The combination of strong agreement and agreement responses represents a substantial proportion of the respondents. This alignment in opinion highlights the perceived role of household income in providing access to resources and opportunities that can enhance educational achievement. It emphasizes the need for efforts to address disparities in educational opportunities and ensure equitable access to quality education for all children, irrespective of their household income.

In addition, the findings of the study found a significant agreement among the respondents regarding the importance of increasing investment in formal education for the sustainable development of the community. The combination of strong agreement and agreement responses represents a substantial majority of the respondents. This alignment in opinion underscores the perceived value of education as a catalyst for economic progress, social cohesion, and overall community well-being. This corroborates the findings of Hofmarcher (2021), who determined that education has a higher influence on development and the decrease of poverty in 32 European countries. This is similar to Janjua & Kamal' (2011) findings, which showed that income only has a little impact on community well-being in developing nations and that education is the primary factor in reducing poverty.

Formal education plays a vital role in poverty alleviation and development by providing the skills and knowledge needed to improve individual employment opportunities and incomes in today's digital age. According to a report by Walker et al. (2019) with adequate education, individuals can obtain better jobs

and access broader economic opportunities, which in turn can help lift them out of poverty. Education also contributes to social mobility, enabling individuals to move from lower to higher social status.

In the context of development, formal education supports human resource development by improving people's skills and capacities. This contributes to sustainable economic growth, improving health and well-being, and strengthening social engagement and democracy. Supported by Cahyati et al. (2024) state that with a better understanding of citizens' rights and obligations, people can participate more actively in the democratic process and create a more just and inclusive society.

In the digital era, formal education is increasingly transformed by the use of technology in the learning process. The digitalization of education opens wider access to learning resources through online platforms, e-learning, and artificial intelligence, enabling individuals to acquire skills relevant to the demands of the modern job market. Supported by Strielkowski et al. (2024) and Qu (2021), digital-era education enables more flexible, collaborative, and data-based learning methods, thereby increasing the efficiency and effectiveness of teaching.

However, challenges such as limited access to technology, digital inequality, and gaps in technology-based curricula can reduce the positive impacts of formal education in the digital age. To maximize the benefits received, it is important to invest in digital infrastructure, improve technological literacy among educators and learners, and strengthen collaboration between the public and private sectors in educational innovation. By addressing these challenges, formal education in the digital age can become a more effective tool for tackling poverty and promoting inclusive and sustainable development.

4. CONCLUSION

The study in the South Tongu District concludes that formal education significantly impacts poverty reduction and community development. It establishes a positive correlation between educational attainment and improved economic prospects. The research highlights that quality education leads to better employment opportunities, higher income levels, and enhanced social and cultural development. Additionally, it emphasizes the critical role of household income in influencing children's educational achievements, with financial constraints posing significant barriers to accessing quality education. Stakeholders and policymakers are advised to prioritize investments in educational infrastructure, especially in rural areas, to improve facilities and resources. Implementing programs that support children from low-income families is crucial to ensuring equal access to quality education. Encouraging community involvement in educational initiatives can further enhance local relevance and effectiveness.

In the digital era, integrating technology into education is essential to bridge the digital divide and enhance learning outcomes. Expanding access to digital tools, such as online learning platforms, interactive educational resources, and virtual classrooms, can help students acquire relevant skills for the modern job market. Furthermore, digital literacy programs should be incorporated into curricula to ensure that students and educators can effectively navigate and utilize technological advancements in education. Integrating educational policies with broader economic and social development strategies will help maximize their impact. This study contributes to understanding education’s role in poverty alleviation within a specific Ghanaian context. By combining quantitative and qualitative methods, it offers a comprehensive perspective, emphasizing the need for targeted interventions tailored to local conditions. In the context of digital transformation, the findings highlight the importance of leveraging technology to enhance educational accessibility and quality, offering practical insights for more effective interventions and policies both locally and globally.

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REFERENCES

Abaidoo, A. (2021). The nexus between education and poverty reduction in Ghana from 2013 to 2017. *Cogent Social Sciences*, *7*(1). https://doi.org/10.1080/23311886.2021.1986933

Addai-Boateng, A. (2019). *Poverty and Development: Role of Education in Poverty Reduction in the Ada East District of Ghana*. Norwegian University of Life Sciences.

Akpan, A. I., & Zikos, D. (2023). Rural Agriculture and Poverty Trap: Can Climate-Smart Innovations Provide Breakeven Solutions to Smallholder Farmers? *Environments*, *10*(4), 57. https://doi.org/10.3390/environments10040057

Aksoy, A., Bilgic, A., Yen, S. T., & Urak, F. (2019). Determinants of Household Alcohol and Tobacco Expenditures in Turkey. *Journal of Family and Economic Issues*, *40*(4), 609–622. https://doi.org/10.1007/s10834-019-09619-1

Amar, S., & Pratama, I. (2020). Exploring the link between income inequality, poverty reduction and economic growth: An ASEAN perspective. *International Journal of Innovation, Creativity and Change*, *11*(2), 24–41. https://ijicc.net/images/vol11iss2/11202_Amar_2020_E_R.pdf

Aparicio Gómez, O. Y. (2020). The Education of Desire and the Use of ICT. In M. Bosch (Ed.), *Desire and*

Human Flourishing (pp. 325–337). Springer International Publishing. https://doi.org/10.1007/978-3-030-47001-2_22

Apergis, N., Polemis, M., & Soursou, S.-E. (2022). Energy poverty and education: Fresh evidence from a panel of developing countries. *Energy Economics*, *106*, 105430. https://doi.org/10.1016/j.eneco.2021.105430

Aregbeshola, R. A. (2022). Interplay of poverty, remittances and human capital development: Panel evidence from selected Sub-Saharan African countries. *International Migration*, *60*(6), 250–271. https://doi.org/10.1111/imig.12986

Aruleba, K., & Jere, N. (2022). Exploring digital transforming challenges in rural areas of South Africa through a systematic review of empirical studies. *Scientific African*, *16*, e01190. https://doi.org/10.1016/j.sciaf.2022.e01190

Attanasio, O., Cattan, S., & Meghir, C. (2022). Early Childhood Development, Human Capital, and Poverty. *Annual Review of Economics*, *14*(1), 853–892. https://doi.org/10.1146/annurev-economics-092821-053234

Awan, A. G., & Malik, A. (2020). Impact of female education on poverty reduction: An Evidence from Pakistan. *Global Journal of Management, Social Sciences and Humanities*, *6*(2), 220–236.

Barakabitze, A. A., William-Andey Lazaro, A., Ainea, N., Mkwizu, M. H., Maziku, H., Matofali, A. X., Iddi, A., & Sanga, C. (2019). Transforming African Education Systems in Science, Technology, Engineering, and Mathematics (STEM) Using ICTs: Challenges and Opportunities. *Education Research International*, *2019*, 1–29. https://doi.org/10.1155/2019/6946809

Bauman, A., & Lucy, C. (2021). Enhancing entrepreneurial education: Developing competencies for success. *The International Journal of Management Education*, *19*(1), 100293. https://doi.org/10.1016/j.ijme.2019.03.005

Bilenkisi, F., Gungor, M. S., & Tapsin, G. (2015). The Impact of Household Heads' Education Levels on the Poverty Risk: The Evidence from Turkey. *Educational Sciences: Theory and Practice*, *15*(2), 337–348. https://doi.org/10.12738/estp.2015.2.2354

Brown, P., & James, D. (2020). Educational expansion, poverty reduction and social mobility: Reframing the debate. *International Journal of Educational Research*, *100*, 101537. https://doi.org/10.1016/j.ijer.2020.101537

Cahyati, B. S., Zahra, F. A., Naima, N., & Hasanah, N. (2024). Menjadi Generasi Maju dengan Memahami Demokrasi, Pancasila dan UUD 1945 Dalam Konteks Indonesia. *Jurnal Ilmiah Profesi Pendidikan*, *9*(1), 687–693. https://doi.org/10.29303/jipp.v9i1.1192

Cooper, K., & Stewart, K. (2021). Does Household Income Affect children's Outcomes? A Systematic Review of the Evidence. *Child Indicators Research*, *14*(3), 981–1005. https://doi.org/10.1007/s12187-020-09782-0

Dogan, E., Madaleno, M., & Taskin, D. (2021). Which households are more energy vulnerable? Energy poverty and financial inclusion in Turkey. *Energy Economics*, *99*, 105306. https://doi.org/10.1016/j.eneco.2021.105306

Dzidza, P. M., Jackson, I., Normanyo, A. K., Walsh, M., & Ikejiaku, B.-V. (2018). Educational Policies on Access and Reduction of Poverty:: The Case of Ghana. *International Journal on World Peace*, *35*(2), 53–82. https://wlv.openrepository.com/handle/2436/621958

Ghana Statistical Service. (2018). *Ghana living standards survey round 7 (GLSS 7)*. Ghana Statistical Service.

Ghory, S., & Ghafory, H. (2021). The impact of modern technology in the teaching and learning process. *International Journal of Innovative Research and Scientific Studies*, *4*(3), 168–173. https://doi.org/10.53894/ijirss.v4i3.73

Godinot, X., & Walker, R. (2020). Poverty in All Its Forms: Determining the Dimensions of Poverty Through Merging Knowledge. In V. Beck, H. Hahn, & R. Lepenies (Eds.), *Dimensions of Poverty: Measurement, Epistemic Injustices, Activism* (pp. 263–279). Springer International Publishing. https://doi.org/10.1007/978-3-030-31711-9_15

Gounder, R., & Xing, Z. (2012). Impact of education and health on poverty reduction: Monetary and non-monetary evidence from Fiji. *Economic Modelling*, *29*(3), 787–794. https://doi.org/10.1016/j.econmod.2012.01.018

Habibi, F., & Zabardast, M. A. (2020). Digitalization, education and economic growth: A comparative analysis of Middle East and OECD countries. *Technology in Society*, *63*, 101370. https://doi.org/10.1016/j.techsoc.2020.101370

Halliday, A. J., Kern, M. L., Garrett, D. K., & Turnbull, D. A. (2019). The student voice in well-being: a case study of participatory action research in positive education. *Educational Action Research*, *27*(2), 173–196. https://doi.org/10.1080/09650792.2018.1436079

Hanushek, E. A., & Woessmann, L. (2020). Education, knowledge capital, and economic growth. In S. Bradley & C. Green (Eds.), *The Economics of Education* (Second, pp. 171–182). Elsevier. https://doi.org/10.1016/B978-0-12-815391-8.00014-8

Hofmarcher, T. (2021). The effect of education on poverty: A European perspective. *Economics of Education Review*, *83*, 102124. https://doi.org/10.1016/j.econedurev.2021.102124

Ilie, S., Rose, P., & Vignoles, A. (2021). Understanding higher education access: Inequalities and early learning in low and lower-middle-income countries. *British Educational Research Journal*, *47*(5), 1237–1258. https://doi.org/10.1002/berj.3723

Janjua, P., & Kamal, U. A. (2011). The Role of Education and Income in Poverty Alleviation: A Cross-Country Analysis. *Lahore Journal of Economics*, *16*(1), 143–172.

Knight, J., Shi, L., & Quheng, D. (2010). Education and the Poverty Trap in Rural China: Closing the Trap. *Oxford Development Studies*, *38*(1), 1–24. https://doi.org/10.1080/13600810903551595

Knott, E., Rao, A. H., Summers, K., & Teeger, C. (2022). Interviews in the social sciences. *Nature Reviews Methods Primers*, *2*(1), 73. https://doi.org/10.1038/s43586-022-00150-6

Lei, S., Zheng, R., Zhang, S., Wang, S., Chen, R., Sun, K., Zeng, H., Zhou, J., & Wei, W. (2021). Global patterns of breast cancer incidence and mortality: A population-based cancer registry data analysis from 2000 to 2020. *Cancer Communications*, *41*(11), 1183–1194. https://doi.org/10.1002/cac2.12207

Lune, H., & Berg, B. L. (2017). *Qualitative research methods for the social sciences*. Pearson. https://thuvienso.hoasen.edu.vn/handle/123456789/11108

Mdluli, P., & Dunga, S. (2022). Determinants of Poverty in South Africa Using the 2018 General Household Survey Data. *Journal of Poverty*, *26*(3), 197–213. https://doi.org/10.1080/10875549.2021.1910100

Medeiros, M., Barbosa, R. J., & Carvalhaes, F. (2020). Educational expansion, inequality and poverty reduction in Brazil: A simulation study. *Research in Social Stratification and Mobility*, *66*(April), 100458. https://doi.org/10.1016/j.rssm.2019.100458

Mhlanga, D., & Moloi, T. (2020). COVID-19 and the Digital Transformation of Education: What Are We Learning on 4IR in South Africa? *Education Sciences*, *10*(7), 180. https://doi.org/10.3390/educsci10070180

Naeem, M., Ozuem, W., Howell, K., & Ranfagni, S. (2023). A Step-by-Step Process of Thematic Analysis to Develop a Conceptual Model in Qualitative Research. *International Journal of Qualitative Methods*, *22*. https://doi.org/10.1177/16094069231205789

Ninh, L. K. (2021). Economic role of education in agriculture: evidence from rural Vietnam. *Journal of Economics and Development*, *23*(1), 47–58. https://doi.org/10.1108/JED-05-2020-0052

Njong, A. M. (2010). The effects of educational attainment on poverty reduction in Cameroon. *Journal of Education Administration and Policy Studies*, *2*(1), 1–8.

Obodai, J., Mohan, G., & Bhagwat, S. (2023). Beyond legislation: Unpacking land access capability in small-scale mining and its intersections with the agriculture sector in sub-Saharan Africa. *The Extractive Industries and Society*, *16*, 101357. https://doi.org/10.1016/j.exis.2023.101357

Ochieng, H. K., & Yeonsung, C. (2021). Political Economy of Education: Assessing Institutional and Structural Constraints to Quality and Access to Education Opportunities in Tanzania. *Sage Open*, *11*(3). https://doi.org/10.1177/21582440211047204

Ogundari, K., & Aromolaran, A. B. (2014). Impact of Education on Household Welfare in Nigeria. *International Economic Journal*, *28*(2), 345–364. https://doi.org/10.1080/10168737.2013.811279

Olopade, B. C., Okodua, H., Oladosun, M., & Asaleye, A. J. (2019). Human capital and poverty reduction in OPEC member-countries. *Heliyon*, *5*(8), e02279. https://doi.org/10.1016/j.heliyon.2019.e02279

Parasvat, D. A., Wibisono, D. H., Nimah, R., Wulandari, D. P., & Wulandari, D. (2024). Peran Gotong Royong dalam Mekanisme Penguatan Toleransi dan Kohesi Sosial di Masyarakat Multikultural di Desa Suro Tambak. *Mauriduna: Journal of Islamic Studies*, *5*(2), 873–891. https://doi.org/10.37274/mauriduna.v5i2.1302

Paul, P. (2019). Effects of education and poverty on the prevalence of girl child marriage in India: A district–level analysis. *Children and Youth Services Review*, *100*, 16–21. https://doi.org/10.1016/j.childyouth.2019.02.033

Qu, J. (2021). Research on mobile learning in a teaching information service system based on a big data driven environment. *Education and Information Technologies*, *26*(5), 6183–6201. https://doi.org/10.1007/s10639-021-10614-z

Roche, J., Bell, L., Galvão, C., Golumbic, Y. N., Kloetzer, L., Knoben, N., Laakso, M., Lorke, J., Mannion, G., Massetti, L., Mauchline, A., Pata, K., Ruck, A., Taraba, P., & Winter, S. (2020). Citizen Science, Education, and Learning: Challenges and Opportunities. *Frontiers in Sociology*, *5*. https://doi.org/10.3389/fsoc.2020.613814

Strielkowski, W., Grebennikova, V., Lisovskiy, A., Rakhimova, G., & Vasileva, T. (2024). AI-driven adaptive learning for sustainable educational transformation. *Sustainable Development*. https://doi.org/10.1002/sd.3221

Tang, S., Lee, H. F., Huang, X., & Zhou, J. (2022). Poverty Stories of rural households in China: The case of North Jiangsu. *Journal of Rural Studies*, *91*, 1–9. https://doi.org/10.1016/j.jrurstud.2022.02.010

Tighe, & Davis-Kean. (2021). The Influence of College Education on Parents and Children in Low-Income

Families. *Merrill-Palmer Quarterly*, *67*(3), 293. https://doi.org/10.13110/merrpalmquar1982.67.3.0293

Walker, J., Pearce, C., Boe, K., & Lawson, M. (2019). *The Power of Education to Fight Inequality: How increasing educational equality and quality is crucial to fighting economic and gender inequality*. https://doi.org/10.21201/2019.4931

Zafar, M. W., Sinha, A., Ahmed, Z., Qin, Q., & Zaidi, S. A. H. (2021). Effects of biomass energy consumption on environmental quality: The role of education and technology in Asia-Pacific Economic Cooperation countries. *Renewable and Sustainable Energy Reviews*, *142*, 110868. https://doi.org/10.1016/j.rser.2021.110868