International Journal of Recent Innovations in Academic Research
E-ISSN: 2635-3040; P-ISSN: 2659-1561
Homepage: https://www.ijriar.com/
Volume-10, Issue-1, January-March-2026: 57-73

Research Article

The Relevance of Education to the Economic Development of People in Rural Areas of Kalomo District

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Article History
Received: January 23, 2026
Accepted: February 14, 2026
Published: February 21, 2026

Abstract
The purpose of this study was to investigate the relevance of education to the economic development of the people in rural areas of Kalomo District. Its specific objectives included the following: to investigate sources of income in rural areas of Kalomo District; to examine how education enhances income generation and diversification in rural areas; to assess the challenges that hinder education and economic development in rural areas of Kalomo District and to determine the extent to which education addresses economic challenges faced by people in rural areas of Kalomo District. The study employed qualitative research method and data was collected through administering questionnaires to sample of 120 respondents. Data was analyzed through searching emerging themes, topics and categories. The research findings show that the major source of income generation in rural areas of Kalomo District is agriculture. This is supplemented by small business activities and wild fruit collection and selling. The findings also show that education helps in building human capital suitable for the job market and increased productivity. Further the research results show that lack of relevant knowledge and practical skills hinders economic development in rural areas. The findings finally show that contextual, relevant, practical and skills-oriented education is key to addressing economic challenges facing people in rural areas of Kalomo District. The research study recommended that: the government, community development experts and other stakeholders should implement contextual and localized educational programs capable of building human capital, improving productivity, sensitize and motivate people to use modern farming practices.
Keywords: Education, Economic Development, Rural Livelihoods, Human Capital, Agriculture, Skills Development.

Background of the Study

Education is a driving force of economic development of people in every country. Most of the countries which are economically developed have higher and better levels of skills and adjust effectively to the challenges and opportunities of the world of work. For people (both rural and urban areas) to develop economically, they should receive quality education. Education enables people to acquire basic needs for their survival. A more educated society translates into higher rates of economic growth and thus the ability of governments to alleviate poverty (Cooray, 2009). Ideally, the application of skills and knowledge should translate into tangible goods and services which in turn may earn a person adequate standard of living. Economic development focuses on wages, career advancement opportunities, and working conditions. After attending school, people should easily be employed within the areas in which they are trained, or must earn their living within their

long-term career pathways. Increased education requires complementary efforts to support a sophisticated economy that will provide jobs (Feldman *et al.,* 2014).

The economic situation in most rural areas of most countries is characterized with Rural Income Generating Activities (RIGA) with agriculture, the most eminent income source, although this analysis is limited to geographical coverage, thus not nationally representative. Although an increasing number of developing countries carry out nationally representative surveys, the available evidence on rural income shares remains scant. Hence this research assessed rural income generating activities both agricultural and non-agricultural, carried out by rural households. This allowed an understanding of the relationship between the various economic activities that took place in the rural space. The General Conference of UNESCO in 1964 recognized the need to develop rural communities which were far less developed than urban communities in most world countries. This was in which lack of competencies among school leavers was pronounced to be a grave obstacle to social and economic development. Therefore, world countries were encouraged to ensure that education systems were designed in a way that allowed both rural and urban people to access formal education. After their political independence from colonisers, most African countries reviewed their education systems. They revised their curricular to localize education to promote their local cultures and most countries embraced the education which was content-based or knowledge-based curriculum approach (Mulenga and Kabombwe, 2019).

In 2013, the Republic of Zambia, through the Ministry of General Education, revised the education curriculum in which it introduced two career pathways, namely; vocational and technical career pathway and academic career pathway. The academic pathway are content-based subjects and are also intended for learners who have interest and desire for careers in that direction, while the vocational path is for learners with interests in technical and other hands-on subjects. Vocational or Technical career pathway is a competent-based curriculum which provides practical skills to learners in secondary schools starting at grade eight up to grade twelve. Offering practical skills in lower grades is to equip learners with relevant skills that can enable them improve their livelihood during and after school. While education is used as a tool to eliminate economic hardship in the country, poverty in rural areas of Zambia is overwhelming. In 2010, the moderate poverty rate in rural areas was 74 percent, more than double the urban poverty rate of 35 percent. The fact that roughly two thirds of the population live in rural areas, the country side is home to 80% of Zambia's poor. Almost 90 percent of Zambians living below the extreme poverty line are concentrated in rural areas the poverty gap index is far higher for the rural population than for their urban counter-parts (World Bank, 2012). In 2015, the World Bank analysis of the Zambian economic situation estimated that 42 percent of people in Zambia were experiencing extreme poverty such that they were unable to meet their daily consumption needs. Through the same analysis the highest rates of poverty were found in rural areas (World Bank, 2016). Therefore, in the quest to alleviate this poverty situation in the country, several adjustments in education have been made as indicated above. Hence, the researcher investigated the relevance of education to the economic development of people in rural areas of Zambia.

Statement of the Problem

Despite the introduction of various reforms or changes in the education system, most people in the rural areas of Kalomo District are poor. When the individuals attain educational qualifications, they should make use of them to generate income. This means that people who acquire education whether self or government employed, should earn adequate standard of living from their job income. For education to be relevant, it must embrace the curriculum which facilitates transmission of social norms, values and beliefs into the next generation. When people cooperate in their social life, they should be able to share common interests which include principles which facilitate production of goods and services (Kapur, 2019). However, the current situation is that poverty is heavily concentrated in rural areas. Rural areas are home to most of the country's poor, and over half of the rural population lives below the extreme-poverty line. The consequence of poverty over a country's largest population (of rural areas) is that the whole country may remain under developed. Hence, this research aimed to find out the extent to which education determines one's sources of income in rural areas.

Purpose of the Study

The purpose of this study was to investigate the relevance of education to the economic development of the people in rural areas of Kalomo District in Zambia.

Research Objectives

1) To investigate sources of household income in rural areas of Kalomo District.

2) To examine how education enhances income generation and diversification in rural areas of Kalomo District.
3) To assess factors affecting education and economic development of people in rural areas of Kalomo District.
4) To identify the measures that should be used to address challenges faced by people in rural areas of Kalomo District.

Research Questions

1) What are the sources of income in rural areas of Kalomo District?
2) How does education enhance income generation and income diversification in rural areas of Kalomo District?
3) What factors affect education and economic development of people in rural areas?
4) What measures should be used to address the economic challenges faced by people in rural areas of Kalomo District?

Significance of the Study

This study might help improve the economic wellbeing of people in rural areas of Zambia. The research may provide education stakeholders with information on the need for reforms in the education system to enhance economic development of rural areas.

Limitations of the Study

Respondents, especially civil servants were not free to give adequate information as they feared to be implicated on their criticism of particular flaws in the education system. Some questionnaires were not adequately filled in by some of the informants, especially teachers as they were mostly busy with various school activities. This resulted into the research leaving important information that might be helpful in solving research problem.

Theoretical Framework

According to the human capital theory, knowledge, skills and abilities are viewed as an invisible asset seen as a tool for sustainable organization. Further, human capital theory also focuses on continuous education and training as well as the rapidly changing trends of the global technology for maintaining competitiveness of organization (Holden, 2016). The success of any nation in terms of human development is largely dependent upon the physical and human capital stock. Thus, recent social research focuses on the behavioural sciences of humanity in relation to economic productivity. Generally, human capital represents the assets each individual develops to enhance economic productivity. Further, human capital is concerned with the wholesome adoption of the policies of education and development. In short, the human capital theorists argue that an educated population is a productive population. Human capital theory emphasizes how education increases the productivity and efficiency of workers by increasing the level of cognitive stock of economically productive human capability, which is a product of innate abilities and investment in human beings. The provision of formal education is seen as a productive investment in human capital, which the proponents of the theory have considered as equally or even more equally worthwhile than that of physical capital.

According to Babalola (2003), the rationality behind investment in human capital is based on three arguments: firstly, the new generation must be given the appropriate parts of the knowledge which has already been accumulated by previous generations; secondly, the new generation should be taught how existing knowledge should be used to develop new products, to introduce new processes and production methods and social services; thirdly, people must be encouraged to develop entirely new ideas, products, processes, and methods through creative approaches. Human resources constitute the ultimate basis of the wealth of nations. Capital and natural resources are passive factors of production, human beings are the active agencies who accumulate capital, exploit natural resources, build social, economic, and political organizations, and carry forward national development (Adedeji and Campbell, 2013). Quality education must be underpinned by credible educational research. The findings of such research should inform the theories and practice of teaching. Research should also draw on the actual professional experience of teachers and involve teachers in the process. This should culminate in an inseparable link between education and research which would help to generate new understandings and knowledge and improve pedagogical skills (Thangeda *et al.,* 2016). Carletto *et al.,* (2007) did a study to re-evaluate the available evidence on the levels and composition of income sources adopted by rural households in order to understand the relationship between the various economic activities taking place in rural areas and their implications for economic growth and poverty reduction. The study showed that livestock activities were only slightly less common and that all countries had at least

approximately half of rural households participating in livestock activities, with an un-weighted average of 68 percent. The 2030 Sustainable Development Agenda unambiguously states that "we will devote resources to developing rural areas and sustainable agriculture and fisheries, supporting smallholder farmers, especially women farmers, herders and fishers in developing countries, particularly least developed countries." Despite the 2030 Sustainable Development Agenda, studies have revealed various challenges that hinder development especially in rural areas.

A study done by Kapur (2019) on problems and challenges faced by rural people indicated that lack of skills overwhelmed the rural people in India. The study emphasized that illiteracy was one of the major problems in rural areas. The research indicated that communication skills, analytical skills, problem solving skills, critical thinking skills, negotiation skills, leadership skills, professional skills and time management skills-all needed to be possessed by everyone in society. The study urged that these skills were to be made use of in the personal and professional lives of the rural individuals. When the rural individuals are lacking in any one or more of these skills, they experience problems and challenges. In rural communities, the individuals focus upon up-gradation of these skills either on one's own through getting enrolled in training centres and conducting research through various sources or communicating with others. Therefore, in order to provide solutions to these problems and challenges, the rural individuals need to put emphasis upon the up-gradation of skills and abilities. A study done on Tanzanian rural economy further shows that 24 percent of the 44 million hectares of land have been utilized for cultivation due to the availability of water resources, favorable climatic conditions, and fertile lands, which have led to a reduction in poverty conditions. In 2009, the program Kilimo Kwanza was inaugurated with the aim of transforming Tanzanian agriculture through the use of modern farming methods in order to improve production. Literature further reveals that the livestock industry was the second-largest employer in Tanzania, employing many people after agriculture activity (Mkonda, 2016).

Alarya *et al.,* (2011), conducted a study on rural sources of income in Niger and concluded that livestock ownership was not a major source of income for households in Niger Republic. The study showed that irrigated agriculture and nonfarm income from self-employment were the main sources of income for the wealthy group. While livestock was not a major source of income in Niger, literature reveals that it was both a tool for seasonal work and security, as well as a short and medium-term insurance. This entails that even though livestock ownership was not the ultimate source of income, but one could utilize livestock to create an economic base or capital for other resources. The analysis drawn was that education increased the levels of household income diversification due to the fact that school education increased the human capital levels and provides the necessary skills which enable the entry into more remunerative labor markets especially for non-farm activities such as nonfarm wage labor or self-employment.

The African Development Bank (2003) conducted a study in Zambia to find ways of diversifying away from mining through citizens' empowerment strategies. The conclusion drawn was that although privatization in 1991 led to economic growth in the country, poverty was still rampant because citizens' empowerment had not trickled down to the grassroots. The study reports that people were not able to perform effective economic activities, such as income diversification, because they lacked the capacity or skills for the same. In teamwork with the Government of the Republic of Zambia, the United States Agency for International Development (USAID) carried out research on how learners' performance could be increased in the early grades by targeting foundational literacy skills. The findings from the Early Grade Reading Assessment (EGRA) were used to inform education decision-making. This activity helped build the capacity of the Ministry of Education (MoE) Examination Council of Zambia and supported the MoE in tracking and collecting data to improve learning outcomes (USAID/Zambia, 2023). The findings also indicated that education enables people to develop skills in literacy and numeracy, which can, in turn, be used to generate income; for example, numeracy helps people in entrepreneurship. A research study conducted by Kabisa *et al.,* (2019) to assess the number of households in Zambia that applied fertilizer during the 2018/2019 season reveals that, nationally, about 58.4 percent of smallholder households used fertilizer in the 2018/2019 agricultural season-an increase from 51.3 percent reported in the previous season. Despite the rise in fertilizer use among smallholder farmers in the 2018/2019 agricultural season, total production of maize and other crops dropped, mainly due to drought conditions (prolonged dry spells) experienced in the southern and western regions of the country.

Research Gap

The literature review encompassed global, regional, and local perspectives. At the local level, the researcher, however, noted that studies of a similar nature were conducted in Northern Zambia. However, these studies did not take into consideration how the attainment of education impacted income generation and diversification in that region. Moreover, the literature review shows that there are currently no similar studies

that have been conducted in the rural part of Kalomo District. This is a clear literature gap that the researcher sought to address by investigating the relevance of education to economic development, particularly in the rural area of Kalomo District.

Methodology

The study presents the research design, population and sample, sampling procedure, research instruments, data collection procedures, and data presentation and analysis procedures. It also presents the qualitative methodology on which the study was anchored.

Research Design

The research design is a blueprint or a guide to data and information collection and processing in light of the hypothesis, objectives, methods, and conceptual framework at hand. It is a set of rules that enables the researcher to conceptualize the problem under study (Befring, 2004). Therefore, the research design used in this research was a descriptive design.

Descriptive Approach

According to Polit and Beck (2008: 274), the purpose of descriptive studies is to observe, describe, and document aspects of a situation as it naturally occurs. Since this study aimed at investigating the relevance of education to the economic development of people in rural areas, both qualitative and quantitative research designs were seen to be the most appropriate research paradigm to use because it is descriptive. This study used a descriptive approach in the sense that events were described; for example, respondents were asked to describe how education addresses the challenges people face in rural areas.

Study Site

This research was conducted in the rural areas of Kalomo District. This site was specifically selected for this research because the study focused on understanding the relevance of education to the economic development of people in rural areas of this district. Kalomo District is a district of Zambia in the Southern Province, lying 125 kilometers north-east of Livingstone.

Target Population

A population is a group of individuals with particular characteristics in common that are of interest to the research (Best and Khan, 1993). It is the "entire set of objects of research about which the study wants to determine some characteristics." Thus, a population is a large group of people with some specifications and from which a representative sample is to be drawn (Bless and Smith, 1995: 88). Thus, the target population for this study was 1,200. These were school leavers (primary, secondary, and tertiary levels), farmers, businesspeople, teachers, agricultural officers, nurses, pupils, District Education Board (DEB) Officers, and members from civil society (National Action for Quality Education in Zambia (NAQEZ)).

Sample and Sample Size

Sample

A sample is a subset of a population that becomes generalized to the entire population (Frankfort-Nachamias and Nachamias, 1996). The purpose of selecting farmers was that they have information on farming skills that could be applied for income generation. Teachers were selected because they are implementers of the education curriculum and have information on specific skills and knowledge a learner needs to survive in a society with competing needs. Nurses were also selected because they have experience in how one could earn a living from skills other than agriculture. Agricultural officers were selected because they taught communities about income generation through agricultural activities.

The school leavers were respondents because they are the ones who received skills and technical knowledge from education, hence the need to share their experiences after education. The businesspeople or entrepreneurs were selected because they have knowledge and experience in income generation, which is the basis of the economic well-being of an individual. The Education Standards Officers (ESOs) were selected because they monitored the quality of education in schools, and NAQEZ members were involved as respondents because they interact with teachers and learners in assessing the education process to ensure quality education in Zambia.

Sample Size

The population sample was 120 in Kalomo District; that is, thirty (30) farmers, one (1) Agricultural (Camp) Officer, twenty (20) businesspeople, ten (10) nurses, twenty (20) teachers, thirty (30) school leavers, three (3)

Education Standards Officers, and six (6) NAQEZ members. Prospective respondents were assured of confidentiality regarding the information they provided as an ethical consideration.

Sampling Procedure

The researcher used a purposive sampling procedure to collect data.

Purposive Sampling

A purposive sample is a technique that also uses a researcher's judgment. In this case, the purposive sampling framework was used for people with low-income-earning jobs. Tongco (2007) is of the view that purposive sampling is a sample chosen for specific characteristics deemed necessary in a sociological enquiry, because such cases are likely to be information-rich with respect to the purposes of qualitative study.

In this study, the researcher was confident that purposive sampling was an ideal technique for collecting information about the relevance of education to the economic development of people in rural areas.

Research Instruments

The researcher used more than one instrument to collect data. The purpose of this was to increase validity and reliability. Such a consideration is important in light of the character of the non-representative sampling framework. The researcher used in-depth interviews and questionnaires, as outlined in the following sections.

In-Depth Interviews

In-depth interviews were used because they allow flexibility and enable the researcher to keep probing. Due to this flexibility, the interviewee has an opportunity to freely express oneself, especially in this research, which requires people's responses based on their experiences. Face-to-face interviews allow one to judge the quality of responses through facial expressions or non-verbal cues. Tuckman (1994) asserts that in-depth interviews have the advantage of obtaining open-ended responses and allowing for clarification of issues that are not clear on either side. Hence, there was a need to use in-depth interviews in this research.

Questionnaires

Questionnaires were used because they provide subjective reality about people's experiences. A questionnaire was given to different people of different economic statuses, with different income sources and levels. This helped to obtain reliable information, as people responded in accordance with their experiences.

Validity and Reliability

To ensure that the research instruments for the study were efficacious, validity and reliability were tested. This is important because testing the validity and reliability of data collection instruments before administering them to the actual study subjects is central to assuring data quality. To ensure validity, instruments were developed under the close guidance of the research supervisor, with reference to relevant literature, and by conducting a pre-test of the questionnaire before full-scale data collection. Similarly, the data were made more valid and reliable by ensuring that there were no ambiguity or unclear statements. This was done through examination of the draft questionnaire by ten (10) respondents who were not part of the sampled respondents.

Validity

Validity measures the extent to which an instrument measures what it is supposed to measure. Put another way, validity refers to the trustworthiness of the designed data collection instruments. If validity or trustworthiness is tested, more credible and defensible results may lead to generalizability, as posited by Stenbacka, as cited in Golafshani (2003), as a structure for both conducting and documenting high-quality qualitative research. Various types of validity were considered. These included content validity, face validity, concurrent validity, and construct validity.

Reliability

Reliability is the measurement of the level of dependability of the instrument. Put another way, reliability is the degree to which a test consistently measures whatever it measures. Reliability was tested by piloting ten (10) questionnaires on selected respondents. The measurement of validity and reliability resulted in the questionnaire being adjusted after removing and editing questions that did not meet the measurement criteria.

Data Collection Procedure

The researcher obtained a letter from Twin Palm Leadership University and sought permission from the Provincial Education Officer (PEO) and the District Education Standards Officer (DEB) in Southern Province.

Further arrangements were made with teachers, pupils, nurses, the DEB office, agricultural camp officers, businesspeople, farmers, and school leavers. The researcher personally distributed the research instruments.

Data Analysis

Due to the qualitative design of the research in social science, much of the data from respondents' responses was presented in a descriptive thematic format. Data were collected from the target population and then analyzed to determine the most recurrent themes. After capturing responses from each of the research instruments, the data were sorted into rough clusters of similar structure depending on the data and themes that emerged from the research, as well as the themes noted in the sub-problem questions, assumptions, and related supportive literature.

Ethical Considerations

The researcher strictly observed ethical issues. Before data collection, permission was sought from relevant authorities, namely the Provincial Education Office (PEO) and the District Education Board Office (DEBO). The researcher also ensured informed consent and anonymity of respondents in the process of data collection.

Findings and Discussions

Demographic Characteristics of the Respondents

Table 1. Age distribution.

Age	Frequency	Percent	Valid percent	Cumulative percent
Below 20	15	12.5	12.5	12.5
21-25	10	8.3	8.3	20.8
26-30	15	12.5	12.5	33.3
31-35	30	25.0	25.0	58.3
Above 35	50	41.7	41.7	100.0
Total	**120**	**100**	**100**	
Source: Field data, Muchimba (2023), Kalomo District.				

Table 1 shows the age distribution of the respondents, who included NAQEZ members, ESO members, school leavers, teachers, nurses, farmers, and businesspersons. The table shows that about 65 respondents were above 35 years, and this translated to 41.7 percent. About 39 respondents were between 31 and 35 years. This computed to 25.0 percent. Those whose ages fell between 26 and 30 years were 20. In percentage terms, this translated to 12.5 percent. As for the respondents whose ages were between 21 and 25 years, they were 13. This translated to 8.3 percent. Respondents who were below 20 years were 20, and this translated to 12.5 percent. In this case, the range of the age distribution was 15, that is, the difference between the highest age frequency (35) and the lowest age frequency (20). The table shows that most of the respondents were over 35 years, as there were 60 respondents in this bracket. The least number of respondents were those between 21 and 25 years. These were 13 and translated to 8.3 percent. The other 20 respondents were below 20 years. In percentage terms, this was 12.5 percent. In cumulative terms, the respondents amounted to 120, with the total frequency equal to 100 percent and the valid percent also equal to 100 percent.

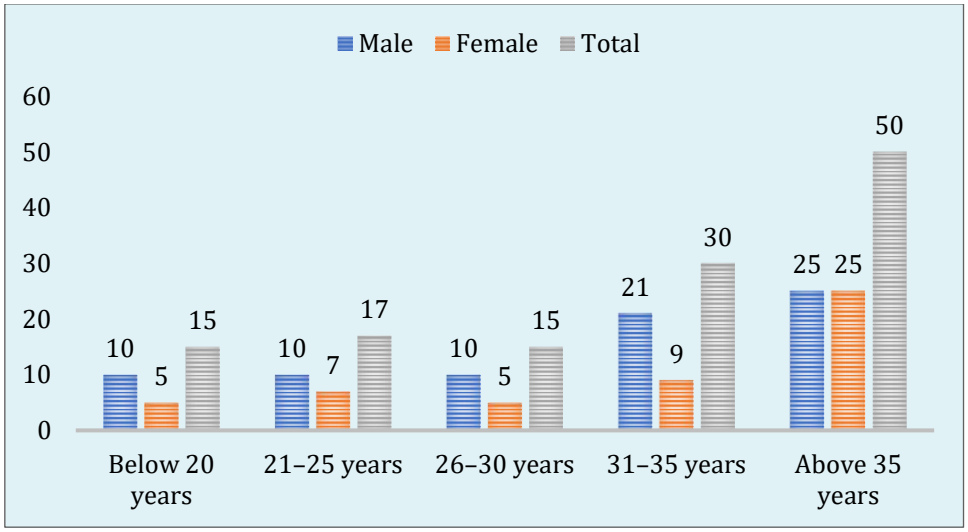

Figure 1. Age distribution by gender (Source: Field data, Muchimba (2023), Kalomo District).

Table 1 and Figure 1 represent the age distribution of the respondents by gender. The statistics in the table show that respondents who were above 35 years gave 50 responses. In gender terms, 25 were males and the other 25 were females. In percentage terms, 50 percent represented males, while 50 percent represented females. There was an equal gender distribution of respondents in this age bracket.

Respondents whose ages ranged between 31 and 35 years were 30. Of these 30, about 21 were males and 9 were females. Translated into percentages, males comprised 70 percent, while females comprised 30 percent of the total respondents in this age bracket. Respondents whose ages were between 26 and 30 years were 15. By gender, 10 were males, while 5 were females. Converted to percentages, 67 percent were males, while 33 percent were females. Informants whose ages were between 21 and 25 years were 10.

The last age distribution bracket was that of respondents who were below 20 years. These gave 15 responses. Of these 15 responses, 10 were male respondents, while 5 were female respondents. This accounted for about 67 percent males and 33 percent females. Though there was uneven gender distribution in specific brackets, the researcher ensured that there was both male and female representation in each age distribution bracket. This was necessary in order to get varied perspectives from both genders on the topic under study.

Statistically, 30 school leavers participated in the study. There was equal distribution of gender in this category. About 15 respondents were males. This represented 50 percent of the total respondents relating to this category. The other 15 respondents were females, which also stood at 50 percent. Similarly, about 30 farmers participated in the survey. About 15 of them were males and another 15 were females. In percentage terms, each gender constituted 50 percent of the total respondents falling under their category. About 20 teachers took part in the study. About 10 males participated, while the females were 10 as well. In terms of percentage, 50 percent male and 50 percent female participated.

About 10 nurses participated. With regard to gender, about 2 informants were male nurses, while 8 were female respondents. This means male nurses translated into 20 percent participation, while 80 percent related to female participation. About 20 business persons participated in the survey. Of the 20, about 10 were males, while the other 10 were females. This means either of the genders constituted about 50 percent each. About 6 members of NAQEZ participated in the study. Two were male participants, which is a representation of 33 percent. About 4 participants were females. This represented 67 percent.

The last category of respondents was the ESO staff members. Only 3 members participated. Of these, 2 were males, while 1 was a female. In percentage terms, 67 percent represented males, while 33 percent represented females. Though the gender representation was not equally distributed throughout the given categories of respondents, the table shows that there was substantial input from both genders. This enabled the researcher to elicit balanced views about the relevance of education to economic development in rural areas of Kalomo.

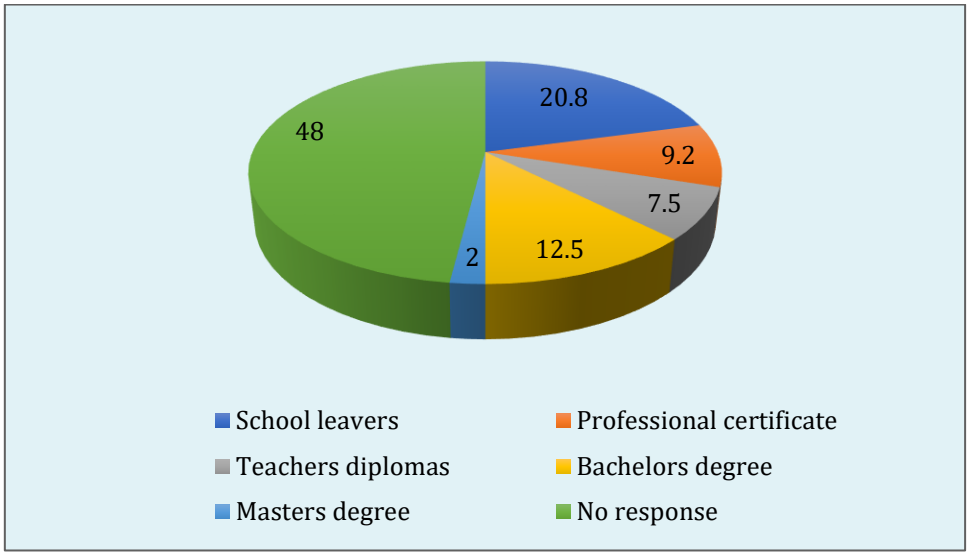

Figure 2. Respondents' qualification levels (Source: Field data, Muchimba (2023), Kalomo District).

Figure 2 represents the qualifications of respondents. The respondents included NAQEZ members, Grade 12 school leavers, teachers, nurses, farmers, and business persons. Statistically, the table shows that the majority

of respondents were school leavers at 20.8 percent. Those with Bachelor's degrees were second at 12.5 percent. Third were those with professional certificates. These comprised 9.2 percent of the total respondents. About 7.5 percent of the respondents were teachers with diplomas. Only 2 percent of the respondents had master's degrees.

Statistically, the school leavers constituted a larger component of the respondents. These were 25 in total, and they merely possessed Grade 12 general certificates. In terms of gender distribution, about 15 school leavers who participated in the study were males, and this constituted about 60 percent. The other 10 school leavers who took part in the study were females. The female component constituted about 40 percent of the total respondents in the category of school leavers.

The respondents with Bachelor's degrees came second in comparative terms. There were about 15 in total. Out of 15, about 8 were females and 7 were males. In percentage terms, 53 percent were females and 47 percent were males. It appears that there are more female workers with Bachelor's degrees deployed or working in rural areas of Kalomo.

The informants with professional certificates ranked third in comparative terms. About 11 informants with professional certificates participated in the study. Of these, 9 were males, while 2 were female workers. This translated into 82 percent males and 18 percent females.

The next category of responses came from workers who had Teacher's Diplomas. There were 9 in total. About 8 of them were males, while 1 was a female. This translated into 89 percent males and 11 percent females. Respondents possessing Master's degrees were only 2: 1 male worker and 1 female worker. This means 50 percent males and 50 percent females. From the total of 120 participants, only 62 revealed their qualifications, while 58 did not disclose. This translated into 52 percent disclosure, while 48 percent withheld disclosure.

Sources of Income in Rural Areas

In this section, the researcher sought to get information pertaining to sources of income and determine the levels of investment in rural Kalomo District. Accordingly, questions were asked relating to these two thematic areas.

When the respondents were asked to state their sources of income, they had this to say:

> R: "*We keep chickens, goats, and cows, which we sell when in need of money. Some people take their animals to Kasumbalesa for sale, while those who have little capital sell within the local community. We also get money mostly from crop farming*."

Other respondents stated that their sources of income were specifically goat and chicken rearing but complained that they had no ready market for them in the local community.

One respondent said that:

> R: "*I do gardening, but very little plants survive to see them grow for sale*."

Figure 3. Maize farming and gardening in Kalomo (Source: Field data, Muchimba (2023), Kalomo District).


Figure 4. Fruit collection and selling in Kalomo District-Masuku fruit (Tonga) (Source: Field data, Muchimba (2023), Kalomo District).


Figure 5. Animal raring in Kalomo District (Source: Field data, Muchimba (2023), Kalomo District).

As shown in the above pictures, respondents stated that:

a) Their sources of income in rural Kalomo District included keeping animals for sale, gardening, and collecting and selling fruits.
b) They engaged in keeping animals, gardening, and selling wild fruits because these activities helped them to beef up their income or were the sole source of income.
c) They were involved in small-holding investments, while others lamented that they lacked knowledge in implementing their conceptualized ideas of goat projects or fish farming.

The findings show that people in rural areas of Kalomo District had varied sources of income. These sources of income range from keeping animals, which they use for both consumption and sale; gardening; and the collection and selling of wild fruits. Other sources of income include small-holding investments. Put in another way, people in rural areas of Kalomo District are mainly agriculturists and, to a lesser extent, small-scale business people. Agriculture is the most important human activity and is widespread in most countries of the world. Even in this technological age, agriculture still remains the most important economic activity for more than three-quarters of the human race. Agriculture is a vital source of raw materials for industrial production, crops for human consumption, and the sale of surplus produce. These sales are not meant for the local market only; peasant farmers can also sell their farm produce to the global market.

Agriculture is also important because of its nature. It is a permanent human activity in contrast to mineral production. Minerals are considered "wasting assets." This simply means that minerals cannot be mined continuously; with time, they will get exhausted. This is not the case with farming (agriculture); the growing of crops has occurred since time immemorial. In fact, soil is considered a "flow resource." This simply means that soil is renewable and can be improved upon. The improvement of soil fertility is done with various chemicals and technologies in order to increase crop production to meet ever-increasing populations (Havlin and Heiniger, 2020). Arguably, education is relevant to enhancing agricultural productivity in rural areas. This is supported by Becker's Human Capital Theory, which espouses that human capital is directly useful in the production process. More explicitly, human capital increases a worker's productivity in all tasks, though

possibly differentially in different tasks, organizations, and situations. In this view, although the role of human capital in the production process may be quite complex, there is a sense in which we can think of it as representable by a unidimensional object, such as the stock of knowledge or skills, and this stock is directly part of the production function.

However, to benefit maximally from agricultural activities, the farmers (whether peasant or commercial) should have the requisite knowledge pertaining to the field of agriculture. This is where education comes in. This view is in harmony with studies done by some research scholars. In this regard, literature shows that education is very relevant to the economic development of people in rural areas. Education contributes to the economic transformation of rural communities. These studies indicate that educational institutions play a key role in empowering learners with agricultural skills necessary for crop productivity and yields (Atchoarena and Sedel, 2003). Arguably, education is relevant to enhancing agricultural productivity in rural areas. This is supported by Becker's Human Capital Theory, which espouses that human capital is directly useful in the production process. More explicitly, human capital increases a worker's productivity in all tasks, though possibly differentially in different tasks, organizations, and situations. In this view, although the role of human capital in the production process may be quite complex, there is a sense in which we can think of it as representable by a unidimensional object, such as the stock of knowledge or skills, and this stock is directly part of the production function.

How Education Enhances Income Generation and Income Diversification in Rural Areas

The researcher wanted to find out how people in the rural Kalomo District diversified their income-generating activities. To these questions, respondents gave varied responses as follows:

> R: "*The application of pesticides on my vegetable garden needs educational skills; even the chicken feed ratio needs educational skills*."

> R: "*I am selling scones apart from the job I hold; this requires entrepreneurship skills. You need education in order to increase your entrepreneurship skills, which in turn increases one's productivity*."

The responses in this thematic area were as follows:

a) All the respondents agreed that education enhances income-generating activities because it empowers them to carry out these activities knowledgeably.
b) The respondents also agreed that education is critical because it empowers those involved in income-generating activities to explore other areas of investment-that is, diversifying their income-generating ventures.

The respondents further noted that education empowers those involved in income-generating activities with risk prevention and mitigation skills. Carletto *et al.,* (2007) supports the idea of education enhancing income generation with regard to rural areas. He states that education plays an important role in the economic development of people in rural areas. Economic development in rural areas creates an enabling environment for people in these regions to generate more income through agricultural and business activities. As earlier noted, the main source of income for the people in rural areas of Kalomo District is farming; their incomes can be enhanced through efficient farming. This is where education comes in. This view is supported by the Theory of Modernization, which is a framework through which the transition from traditional to modern forms of society can be analyzed (Tembo, 2005).

The research findings showed that most people in the rural areas still used traditional approaches to farming. Such methods of farming cannot generate much income. This is where the Theory of Modernization is justified. People in these areas should adopt modernization rather than sticking to traditional ideologies of farming. In the area of agriculture, this theory aims at creating efficient farming in order to feed the expanding population. Of course, rural farmers will not just produce crops to supply to the markets or towns free of charge. They will charge a price for the crops, thus generating income. The more they produce using better methods and modernized approaches, the more they increase their levels of income. In this regard, education can strengthen their agricultural practices, such as research and experimentation with varied types of crops, to ascertain those suitable for specific weather, climatic conditions, and soil conditions. Respondents agreed that having knowledge (education) helps in reducing and mitigating these risks. For example, knowledge of climate change can help people to practice preventive measures, such as protecting forests; those selling perishable food, like scones, can use educational knowledge to produce only a limited number per day. This is in line with the views

of Osuju (2000:1), cited in Chakaninka *et al.,* (2012), that "education is a necessity for human survival. It enables people to efficiently and effectively function in their own environment." The concept of education suggests the development of valuable knowledge and skills in a society, the transmission of culture through generations, the grooming of individuals and moral development, and the promotion of social and economic progress (Siegel, 1996).

Challenges Affecting the Economic Wellbeing of People in Rural Areas

The researcher wanted to find out about the challenges affecting the economic well-being of the people in rural Kalomo District. The challenges affecting the economic well-being of the people in Kalomo District were summarized as follows:

a) Farmers find it difficult to access markets in their local communities where they can sell their farm produce. In short, long distances to the markets affected their economic well-being.
b) Stiff competition for their milk and buyers dictating prices for their products affected their profit margins and economic opportunities.
c) The respondents considered the construction of markets in rural communities, the introduction of projects such as fish farming, improvement of the Constituency Development Fund (CDF), involving local people in implementing developmental projects, and enhancing literacy levels among rural people as some of the solutions to addressing their economic challenges.

Lack of consistent support by the government also contributes, to a greater extent, to the undesirable economic conditions in rural areas. A study done by IAPRI and Musika Development Initiatives (2008) also "excavated" similar findings about government inconsistency in supporting rural production. In assessing the viability of horticulture wholesale market investments in Zambia, the researchers discovered that the horticultural sector faced challenges such as unregulated, non-transparent, and uncompetitive informal open-air markets; high horticulture supply inconsistencies, which resulted in high price volatility and huge post-harvest losses; and limited cold-chain facilities and unstructured marketing systems.

The above-stated challenges and inconsistencies imply that there was no government involvement in the horticultural activities in the area under study. Most of the challenges in the cited literature are not exceptional to the challenges faced by the people in Kalomo District. The people of rural Kalomo are not lazy, as might be conceived by others; rather, they lack government effort to supplement the production process. In their study recommendations, IAPRI and Musika Development Initiatives (2008) proposed, among other things, changes to the horticulture marketing structures and environment by introducing a sales commission-based model for marketing fruits and vegetables in Zambia, similar to the South African system.

Measures That Should Be Used to Address Challenges Faced by People in Rural Areas of Kalomo District

Asked to suggest the measures that should be used to address market challenges, respondents gave varying responses. Most of the respondents suggested that the government should construct good roads to enable them to transport their products to town. They also stated that access to education should be increased and that education should be skills-oriented. From the earliest times, literature reviews show that education prepares the next generation for duties and pleasures (Snelson, 1974). This implies that for the next generation to be equipped for their duties and to enjoy the pleasures and fruits of such duties, they need education. They need to be trained in various skills and competencies in order to be prepared for such duties.

With reference to the people in rural areas of Kalomo District, this implies that they need education not only to know how to use modern farming practices and engage in profitable business ventures, but also to impart that knowledge to successive generations as a way of preparing them for future duties and pleasures. Other researchers have termed the concept of educational preparation as the formation or building of human capital. Researchers like Theodore Schultz (1960), cited in Nowak and Dahal (2016), recognize that capital invested in education and training improves the quality of performance and productivity. Equipped with relevant and contextual knowledge in their respective fields, these people will improve their performance and productivity. Education will not only improve their performance and productivity, but will also lead to economic growth in their area, and this, in turn, will change the social status of the people in rural areas of Kalomo District. Social transformation will also occur.

The question is: is it just any education that can spur economic growth? Campbell *et al.,* (2004) emphasize that education which does not equip students with skills cannot solve their immediate challenges. This implies that for the people in rural areas of Kalomo District to address their felt challenges, such as lack of skills for modern

agricultural practices and basic business knowledge, they need to receive an education that is practical and skills-oriented. Sounders' report of November 1967 supported this advocacy for practical and skills-oriented education. The report recognized technical and vocational education as deserving the highest priority for national development.

This is also documented by Chandra (2019). Chandra emphasizes that education should impart relevant skills and that these skills should contribute to socio-economic development. That said, it implies that the general and conventional education provided in the country (Zambia) may not address the economic challenges facing people in rural areas, as well as those in urban areas. With reference to people in Kalomo District, practical agricultural and basic business skills should form a major component of the curriculum that should be offered to these local people. McConnell *et al.,* (2009) put it this way: the more knowledge, skill, and ability people have, the more likely they are to get better jobs. The researcher argues that it is not just better jobs that people with skills would get, but that these skills should be relevant and appropriate to their respective fields.

Major Implications of the Findings

These implications are outlined in accordance with the discussion and the stated objectives.

Sources of Income of People in Rural Areas of Kalomo District

The findings showed that the major source of income for the people in rural areas of Kalomo District is agriculture. The major implication here is that the government should seriously consider investing heavily in this area, both in the aspects of education, agricultural projects, and modern farming practices.

How Education Enhances Income Generation and Diversification in Rural Areas

The findings showed that education enhances income generation and diversification. Since agriculture and small business activities are the key sources of income in rural areas of Kalomo District, the government and other stakeholders should ensure that they provide education that is relevant, practical, and skills-oriented. With this, the local people will be able to increase their income levels and broaden their thinking on diversification possibilities.

Challenges Affecting Economic Development of People in Rural Areas

The findings showed that the challenges affecting economic development in rural areas mainly include lack of education and facilities, lack of business capital, and stiff business competition. This implies that the government and community developers should provide relevant, practical, and skills-oriented education to the people in rural areas of Kalomo District. Relevant and tailor-made education should address the various challenges noted in this study.

Measures That Should Be Used to Address the Economic Challenges Faced by People in Rural Areas of Kalomo District

The findings showed that education is one of the major factors that addresses the economic challenges faced not only by people in rural areas but also in urban areas. This implies that economic policies and developmental efforts should prioritize education as a key driver of economic development. Investment in education should be upscaled in order to provide relevant, practical, and skills-oriented education to various communities.

Conclusion

The last section discussed the research findings. This section presents the conclusions derived from the synthesis of the study and recommendations made to the stakeholders. This section also contains recommendations for future research.

Sources of Income of People in Rural Areas of Kalomo District

The study concludes that people in rural areas of Kalomo District rely heavily on varied agricultural activities as their major source of income. This source of income is supplemented by business activities and donations from well-wishers. The study concludes that most people in rural areas of Kalomo District are engaged in peasant farming and not commercial farming. They mainly use traditional methods of farming and lack the knowledge and skills that can enhance modern agricultural practices.

The study concludes that these people need to be helped with the necessary skills and capitalization of their small businesses. In this way, their levels of income will increase and their thinking capacities will broaden. Most of the people in the rural areas of Kalomo District are poor because they still use traditional approaches

to farming; therefore, education is needed in these rural areas in order to move these people from peasantry to a modernized approach to farming. Economic development does not depend only on farming activities, but off-farm activities also greatly supplement rural income, and this aspect can only be realized through investing in human capital (education), accompanied by modern productive or industrial equipment and facilities. The broadened thinking capacity will help them to conceive of other income-generating activities.

How Education Enhances Income Generation and Diversification in Rural Areas

The study concludes that education enhances income generation and diversification. This is because education helps in building human capital. Human capital is the most important factor in economic growth and social change. The study concludes that it is this trained human capital that can enhance income generation and diversification among the people in rural areas of Kalomo District. In terms of income diversification, the study concludes that education expands the thinking capacity of people. In this way, people become innovative and creative and are able to diversify their income-generating streams.

Factors That Hinder Education and Economic Development in Rural Areas

The study concludes that several factors hinder education and economic development in rural areas. The major one is the lack of relevant, practical, and skills-oriented education that is tailor-made to address economic challenges within the context of rural settings. The study also concludes that people's ideologies and beliefs with regard to farming practices hinder economic development and growth. This can change through sensitizing local people to the benefits of modern agricultural practices, which maximize productivity and enhance income generation.

The study also concludes that lack of capital for people to effectively engage in or grow small businesses is a major challenge to the economic development of rural areas. The study concludes that as long as these hindrances are not addressed, economic development in rural areas will remain far-fetched.

The Extent to Which Education Addresses the Economic Challenges Faced by People in Rural Areas of Kalomo District

The study concludes that education is one of the major drivers of addressing the economic challenges faced by people in rural areas of Kalomo District. The study noted that this is because education builds informed and competent human capital in all fields. With reference to the people in rural areas of Kalomo District, the study concludes that education can empower them with relevant knowledge that can help them modernize their agricultural activities. It can also empower them with entrepreneurial skills and consequently address their economic limitations.

The study also concludes that it is education that is contextual, relevant, practical, and skills-oriented that brings economic transformation in these rural communities. Education that is more theoretical may not be the answer to the economic challenges cited in this research. The study also concludes that, in order for agricultural activities to be maximized and productivity increased, local people in various rural communities should be sensitized to the benefits of modern farming. This sensitization should focus on addressing the core ideologies and traditional beliefs about farming in its various aspects.

Recommendations of the Study

Arising from this research study and its findings, the researcher recommends the following:

1) The Community Development Committees and Small and Medium Enterprises Committee, in conjunction with the Parent–Teacher Committees (PTC), should carry out educational activities that are tailored to helping people understand how to broaden their income-generation streams, using the opportunities available within their communities.
2) The Community and Ward Development Committees, in collaboration with agricultural development officers, should also teach people the importance of economic diversification at grassroots levels.
3) The local business cooperatives under the Ministry of Small and Medium Enterprises should help people in rural areas to formalize the wild fruits collection and selling business, possibly forming cooperatives that can regularize it and enhance their business efforts.
4) Educational policymakers should help to design education programs and curricula that are contextual, relevant, practical, and skills-oriented in order to improve the human capital base in these rural communities.
5) Agricultural extension officers, in conjunction with veterinary officers, should impart modern farming practices, basic business skills, and meat-processing skills to rural farmers.

6) Community Development Committees, together with agricultural officers, should occasionally carry out motivational sessions in these rural areas in order to spur the people and move them from being problem-oriented to being solution-oriented individuals.
7) Agricultural extension officers and educational experts should enlighten people in rural areas about the benefits of using modern farming practices and technologies.
8) Agricultural extension officers and Community Development officers should link farmers in rural areas to supply, service, and marketing facilities in order for them to compete favorably.
9) The local Small and Medium Enterprises Committee, in partnership with Ward Development Committees, should make proposals for the establishment of community milk centers for milk producers in rural areas.

Recommendations for Further Studies

Following this research, it is herein suggested that future studies should be conducted in the following areas:

1) The extent to which people in rural areas of Kalomo District embrace and use modern agricultural technologies.
2) The historical and traditional terminologies of farming practices among the Tonga people of Kalomo District.

Declarations

Acknowledgments: We gratefully acknowledge the contributions of all individuals who supported this work.
Artificial Intelligence (AI) Use Statement: The authors declare that no artificial intelligence tools were used in the preparation, analysis, or writing of this manuscript.
Author Contributions: DM: Definition of intellectual content, literature survey, preparation of the first draft of the manuscript, implementation of the study protocol, data collection, data analysis, manuscript preparation, and manuscript revision; NM: Conceptualization, study design, data collection, data analysis, and manuscript preparation; KS: Manuscript review and revision; AP: Study design and implementation of the study protocol; MK: Conceptualization, study design, implementation of the study protocol, and manuscript revision; EM: Manuscript preparation, manuscript review, article submission, and manuscript revision.
Conflict of Interest: The authors declare no conflicts of interest.
Consent to Publish: The authors consent to the publication of this paper in International Journal of Recent Innovations in Academic Research.
Data Availability Statement: The data presented in this study are available upon reasonable request from the corresponding author. The data are not publicly available due to privacy concerns.
Funding: This research received no external funding.
Institutional Review Board Statement: The study proposal was approved by the Institutional Review Board of Rockview University, Chibombo, Zambia.
Informed Consent Statement: Written informed consent was obtained from all participants prior to participation in this study.
Research Content: The content of this manuscript is original and has not been published elsewhere.

References

1. Adedeji, O. and Campbell, O. 2013. The role of higher education in human capital development. SSRN Electronic Journal. https://ssrn.com/abstract=2380878
2. African Development Bank. 2003. Study of the economic diversification and productivity improvement in Zambia. African Development Bank Group.
3. Alarya, A., et al. 2011. Determinants of income poverty in rural Africa: A comparative study of Kenya and Nigeria. Department of Economics, Allegheny College.
4. Atchoarena, D. and Sedel, C. 2003. Education for rural development: Towards new policy responses. UNESCO/International Institute for Educational Planning.
5. Babalola, H. 2003. Economic growth and human development. University Press.
6. Befring, E. 2004. Research methods, ethics and statistics. Unipub.
7. Best, J.W. and Kahn, J.V. 1993. Research in education (7th ed.). Allyn and Bacon.
8. Bless, C. and Smith, C.H. 1995. Fundamentals of social research methods: An African perspective (2nd ed.). Juta and Co.
9. Campbell, R.J., Kyriakides, L., Muijs, R.D. and Robinson, W. 2004. Effective teaching and values: Some implications for research and teacher appraisal. Oxford Review of Education, 30(4): 451–465.

10. Carletto, G., Covarrubias, K., Davis, B., Krausova, M., Stamoulis, K., Winters, P. and Zezza, A. 2007. Rural income-generating activities in developing countries: Re-assessing the evidence. Electronic Journal of Agricultural and Development Economics, 4(1): 146–193.
11. Chakanika, W.W., Sichula, N.K., Sumbwa, P.I. and Nduna, M. 2012. The challenges of rural education in Africa. South Africa Rural Educator, 2(1): 1–13.
12. Cooray, A.V. 2009. The role of education in economic growth. In: Proceedings of the 2009 Australian Conference of Economists (pp. 1–27). Economic Society of Australia. https://ssrn.com/abstract=1520160
13. Feldman, M. 2014. The character of innovative places: Entrepreneurial strategy, economic development, and prosperity. Small Business Economics, 43(1): 9–20.
14. Frankfort-Nachmias, C. and Nachmias, D. 1996. Research methods in the social sciences (5th ed.). St. Martin's Press.
15. Golafshani, N. 2003. Understanding reliability and validity in qualitative research. The Qualitative Report, 8(4): 597–607.
16. Havlin, J. and Heiniger, R. 2020. Soil fertility management for better crop production. Agronomy, 10(9): Article 1349.
17. Holden, L. 2016. The introduction of human capital theory into education policy in the United States (Doctoral dissertation). Michigan State University.
18. Indaba Agricultural Policy Research Institute and Musika Development Initiatives. 2008. Assessment of the viability of horticulture wholesale market investments in Zambia. IAPRI.
19. Inglehart, R. and Welzel, C. 2005. Modernization, cultural change, and democracy: The human development sequence. Cambridge University Press.
20. Kabisa, M., Chapoto, A. and Mulenga, B.P. 2019. Zambia agriculture status report 2019. Indaba Agricultural Policy Research Institute.
21. Kapur, R. 2019. The role of education in poverty reduction. University of New Delhi.
22. McConnell, C.R., Brue, S.L. and Flynn, S.M. 2009. Economics: Principles, problems, and policies (18th ed.). McGraw-Hill Education.
23. Mkonda, M.Y. 2016. Efficacy of transforming agriculture from subsistence to commercial agriculture through the "Kilimo Kwanza" initiative in Tanzania (Doctoral dissertation). Southwest University.
24. Muchimba, P. 2023. Field survey data on age distribution of respondents in Kalomo District (Unpublished field data). Kalomo District, Zambia.
25. Mulenga, I.M. and Kabombwe, Y.M. 2019. A competency-based curriculum for Zambian primary and secondary schools. International Journal of Education and Research, 7(2): 117–130.
26. Nowak, A.Z. and Dahal, G. 2016. The contribution of education to economic growth: Evidence from Nepal. International Journal of Economic Sciences, 5(2): 22–41.
27. Ola, C.D. 2019. Role of education in socio-economic development of rural life. Journal of Global Resources, 5(2): 70–77.
28. Polit, D.F. and Beck, C.T. 2008. Nursing research: Generating and assessing evidence for nursing practice (8th ed.). Wolters Kluwer/Lippincott Williams and Wilkins.
29. Siegel, H. 1996. Education and cultural transmission/transformation. Paedagogica Historica, 32(Suppl. 1): 25–46.
30. Snelson, P.D. 1974. Educational development in Northern Rhodesia, 1883–1945 (2nd ed.). National Educational Company of Zambia.
31. Thangeda, A., Baratiseng, B. and Mompati, T. 2016. Education for sustainability: Quality education is a necessity in modern day. Journal of Education and Practice, 7(2): 9–17.
32. Tongco, M.D.C. 2007. Purposive sampling as a tool for informant selection. Ethnobotany Research and Applications, 5: 147–158.
33. Tuckman, B.W. 1994. Conducting educational research (4th ed.). Harcourt Brace and Company.
34. U.S. Agency for International Development. 2023. USAID Zambia Let's Read project: Education Data Activity fact sheet. USAID.

35. World Bank. 2012. Zambia poverty assessment: Stagnant poverty and inequality in a natural resource-based economy (Report No. 81001-ZM). World Bank.
36. World Bank. 2016. Zambia economic brief: Poverty and shared prosperity status in 2015. World Bank Group.

Citation: David Muchimba, Neroh Mwanapabu, Kalasa Stanley, Annie Phiri, Malvern Kanyati and Emmanuel Malichi. 2026. The Relevance of Education to the Economic Development of People in Rural Areas of Kalomo District. International Journal of Recent Innovations in Academic Research, 10(1): 57-73.