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# ASSESSING THE IMPACT OF ADVANCED EDUCATIONAL STRATEGIES ON LEARNING OUTCOMES IN RURAL COMMUNITIES: A CASE STUDY OF CHIUNDA PONDE IN LUVUSHIMADA DISTRICT

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**Abstract**: This research focuses on the effects of innovative learning and teaching methodologies on achieving educational goals and objectives in rural communities through a case study of Chiunda Ponde School in Luvushimada District, Zambia. Education in Zambia, as with other rural counterparts around the world, is a challenge due to limited resources, few and scarcely qualified teachers and socio-economically related factors. This research assesses the applicability of new strategies, including technology-integrated education, communal support structures, and culturally sensitive teaching strategies, to these challenges.

The methods used in the super-vice learning study include qualitative interviews with individual teachers and other members of the community. The quantitative analysis used student performance data obtained over two consecutive years. Findings suggest that high-level approaches, such as the facilities of learning technologies in literacy and numeracy and advanced teacher training, enhanced students' achievement. However, the participation of the communities in the education advancement enhanced parental participation and promoted the creation of an appropriate learning atmosphere for the students.

Regarding the principle of targeted educational approaches, this case displays the optimistic opportunity of bridging the education divide in the rural and urban sectors. It focuses on policies concerning resource distribution, teacher professional development, and culturally responsive approaches in the teaching system in rural areas. In this regard, the results enrich the global conversation about the negations of inclusive education and co-enlightenment for sustainable development in such resketching areas as Chiunda Ponde.

**Keywords:** Advanced educational strategies; Learning outcomes; Rural communities; Teacher development

## 1 INTRODUCTION

As shown in Figure 1, the significance of education in supplementing social and economic development, especially in rural regions, cannot be downplayed, given the limited stock of teaching and learning resources available. For years, it has been well understood that education can effectively reduce poverty and social and economic development, especially in poor regions [1]. Like any rural district in Zambia, Lavushimanda also needs help with concerns about school infrastructure, qualified teachers, and few teaching/learning resources. Such barriers lead to poor academic performance and high dropout rates and retard the development of rural areas [2]. Nevertheless, there is a growing awareness that enhanced educational practices work in these groups to enhance learning outcomes when strategies are appropriate to the local context and factors. This study seeks to examine how such strategies are practised in Chiunda Ponde, a rural area in Lavushimanda District, and the resulting effects of such practices on learning outcomes. The empirical literature shows that context-sensitive interventions like mobile technology, teacher development and community-initiated education reforms are instrumental in a positive change for rural schools [3]. This case study will lay down the best practices for integrating education in rural areas by examining localized strategies in technology use, communal participation in school, and curriculum adjustments. Different researchers have suggested that using the community's participation in education raises enrollment levels and increases the significance of the learning content to students [4]. The study will also outline the effectiveness of these strategies in supplementing education deficiencies within rural and urban areas. A significant area of focus when it comes to changing and improving education systems in Zambia is to meet the goals of raising quality.

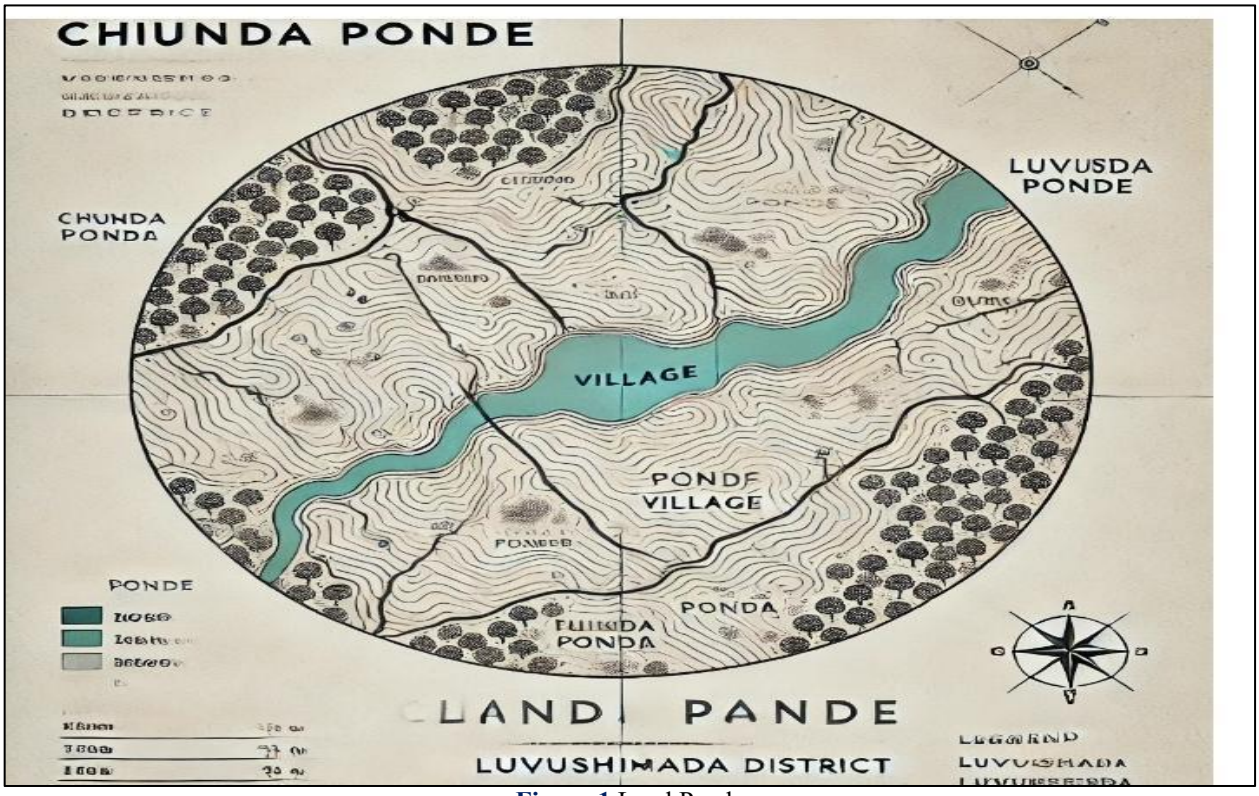


**Figure 1** Land Pande

Rural schools match urban schools, giving rural students an equal chance of success as urban students. Thus, through this study, the challenges and possibilities, as well as how these strategies can be adopted in other rural areas in Zambia, will be elucidated and afford a valuable contribution to the general discussion about increasing the efficiency of education systems in developing countries. These studies from Chiunda Ponde may assist in negotiating policies and strategies that close the education gap among rural students in Zambia so that no kid is left behind in obtaining quality education.

Chiunda Ponde is a rural village in the Lavushimanda District in the Muchinga Province of Zambia. Like most remote villages, the common logistical factors hinder most of the peasants in rural areas of Zambia from wanting improved infrastructure, poor health centres, and few schools. Farming in this area is mainly for food security since the majority of the people in the village depend on agriculture. This has a bearing on the extent and rate at which the growth and development of the economy and sociability in the area transpires [5]. As with other rural areas of Zambia, education in Chiunda Ponde has its share of challenges, including poorly resourced schools, limited professional growth of teachers, and students with limited access to instructional materials. They influence poor education results such as dropouts, poor performance in the national examination and lowest educational standards. However, proactive steps have been taken recently to enhance access and quality to education in Zambia, with the participation of the local community and the Government having a central role.

## 2 LITERATURE REVIEW

### 2.1 Introduction to Rural Education Challenges

Hindrances to effective learning are rife and continue to afflict those in rural areas, resulting in the worst form of poverty and underdevelopment. Some hurdles teachers face include infrastructure, lack of teachers' qualifications, and general want of education material. The African country's infrastructural decay, especially in the rural regions, shows off in the dilapidated school structures, inadequate and unreliable water and sanitation facilities for educators and students, and poor electricity infrastructure affecting teaching-learning environments [6]. Analyzing the data, it was found that combined with infrastructural facilities, teaching materials such as textbooks, and the absence or inadequate access to educational technologies, it is difficult for students to follow the curriculum and develop essential skills. Most rural schools are staffed with a critical shortage of qualified teachers.

Literature review indicates that rural school stakeholders support inadequate working conditions, high teacher attrition and poor teacher quality, with only a tiny percentage of teachers in rural schools being professionally trained teachers [7]. For example, most teachers teaching in the rural areas of Zambia lack proper qualifications. Zambian schools are overcrowded and cannot afford to employ enough qualified teachers, which gives each student adequate attention [6]. Therefore, the quality of effectiveness and access to instruction and educational resources decline, and students' performance in remote areas is comparatively poor compared to that of students from urban areas.

Moreover, access to teaching resources remains a big problem in rural areas. Schools need more government funding and cannot purchase primary education needs such as textbooks, desks and computers. Sometimes, the learners are allowed to share the learning materials, which minimizes the chances of learning. However, due to poor internet connection as well as a scarcity of technology devices in rural areas, student exposure to International, as well as national learning resources and opportunities, is scaled down; thus, they have difficulty being endowed with skills that help them/her fit in the current economy. These are the systemic factors that affect learning achievements.

It is sad that, in sub-Saharan Africa, in Zambia specifically, several rural students fail to display high performance, especially in literacy, numeracy and critical thinking tests. This is attributed to the fact that it is not only a result of resource constraints but also other exogenous factors that prevail within the rural agrarian-based society, such as poverty and scarcity of additional resources such as educational assistance. Opine that low academic achievements among rural students are associated with inadequate parental involvement in education since these parents struggle to find employment to pay extra tuition. Ponde of Luvushimada District in Zambia is one such case, as it mirrors several issues typical for rural education. These include inadequate and poor facilities such as proper classrooms, few schools and colleges, and inadequate library and other learning resources. There remains a critically chronic shortage of teachers, and the local schools typically employ inexperienced teachers or teachers with little instruction in current teaching methods. These challenges, therefore, lead to low literacy and numeral understanding among students; children in this part of the world need help to meet the national education performance indicators.

Consequently, schools in such regions as Chiunda Ponde must catch up to other regions regarding educational attainment. This fact has implications for social mobility and economic growth in the future. Mitigating these factors mostly requires a total overhead approach, a strategy that involves, among other things, the provision of facilities, teacher training, curriculum enhancement, and community involvement. Those educational interventions intended to enhance access and quality in rural Zambian schools, such as using ICT in schools, can provide solutions to such barriers to enhance learning achievements, as indicated. However, these solutions must be unique to the Chiunda Ponde context, sustainable, feasible and culturally acceptable.

### 2.2 Advanced Educational Strategies: Definitions and Relevance

Current education theories are highly developed and based on flexibility, integration, and correspondence to the necessities of the contemporary learning process. These strategies include using new teaching methods, multi-media technologies, a community-based approach and a context-based curriculum. Collectively, as they seek to achieve educational equity and quality, particularly in transforming lip service, urban-centred and privileged school environments reflect the resources scarce in rural or marginalized settings; the teaching-learning approaches focus on learner engagement and achievement through activities such as inquiry-based learning and project-based learning and problem-based learning or the flipped classroom teaching strategies. These approaches move away from memorization and encourage the adoption of a more critical view of the content being taught. Technology increases the effectiveness of these methods through the use of innovative content delivery channels such as artificial teachers, intelligent learners, learning analytics for student performance tracking, and other ICT applications considered e-learning, mobile learning, and virtual classrooms, among others technology-facilitated teaching and learning has been very effective in reaching out to the unreached regions of the world. For example, mobile-based education tools educate learners in rural areas since they need help accessing well-trained teachers or everyday learning materials [8]. Such innovations spread education and digital literacy among students, which are requisite for the prevailing world economy. Community-based approaches also enhance the learning experiences by using local content, area expertise, and local culture to deliver education pertinent to the students.

These strategies go further by engaging stakeholders, for example, parents, local authorities, and NGOs, in an effort to fashion a positive learning environment for the learners and foster a sense of shared responsibility on the part of all stakeholders. Curriculum contextualization also supports such initiatives since it develops curricula that reflect the learners' social, economic, cultural and geographical context. This means that besides equal education opportunities for all students, it is also relevant for students to know how they can meet challenges within their context after joining colleges or universities. In combination, each of these approaches embodies revolutionary change in how education can be provided relatively and in a manner that respects the needs of the world's students.

### 2.3 Technology Integration in Rural Education

Various literature evidence has supported the adoption of ICT within rural education as a positive social change in the learning achievement of learners. Research and experimental projects, including OLPC and mobile learning applications for education, have revealed enhanced learners' literacy and numeracy in a restricted-resource environment [9]. These initiatives offer learners content, learning tools, and collaboration capabilities while enabling them to access otherwise unattainable elements under conventional learning systems. More so, using ICT is essential in enhancing independent learning, critical thinking, and problem-solving skills, which are marked in the advanced knowledge-based economy. Using ICT tools in classroom teaching and learning, especially in rural areas like Chiunda Ponde, can enhance education equity by incorporating ICT-based teaching aids in addition to traditional methods. Education aids like e-learning platforms allow students to receive multiple resources related to the curriculum and use them as a means of differentiated instruction to meet students' needs.

Moreover, ICT supports teachers' professional growth by providing online access to training in information and communication technologies, lesson planning resources, and networks for teachers' cooperation. Moreover, there are considerable obstacles to integrating ICT in rural contexts [10]. One central imperative is the infrastructure's uncertainty, where most stable electricity and Internet connection chemistry cases were missing. They affect the practicality of ICT tools, hindering project efficiency or making them unsustainable in the areas in question. However, the educators' ability to incorporate technology into their practices is the crucial factor that determines the success of the ICT initiatives.

The lack of better training for the teachers and lack of exposure to the use of ICT enhances the challenges experienced in places like Chiunda Ponde. A lack of ICT technical skills and achieving the necessary pedagogical change to leverage ICTs effectively are two chief problems for teachers, suggesting that continual capacity development efforts must be addressed. Also, combined with institutional and infrastructural challenges, the disparity in the ownership of smart devices and the high cost of data perpetuates the digital divide in rural areas. Addressing these challenges requires a multistakeholder approach that includes technological and policy solutions. However, global implementations of ICT need support from the government, private sectors, and NGOs to provide funding and respond to local education needs [11].

As such, there is a need to complement these interventions with the cultivation of infrastructure, subject-sensitive teacher training, population sensitization, and participation. The organization of ICT education has shown great potential for increasing education delivery and achievement in rural areas, but its full potential can only be attained in the following manner: infrastructural, technical, and human resource capacities. Therefore, if such an integrated approach is adopted, one may easily see regional education improvement, such as that of Chiunda Ponde, offering Equitable Quality Education for All [8]. Technology integration in rural education can be seen in Figure 2.

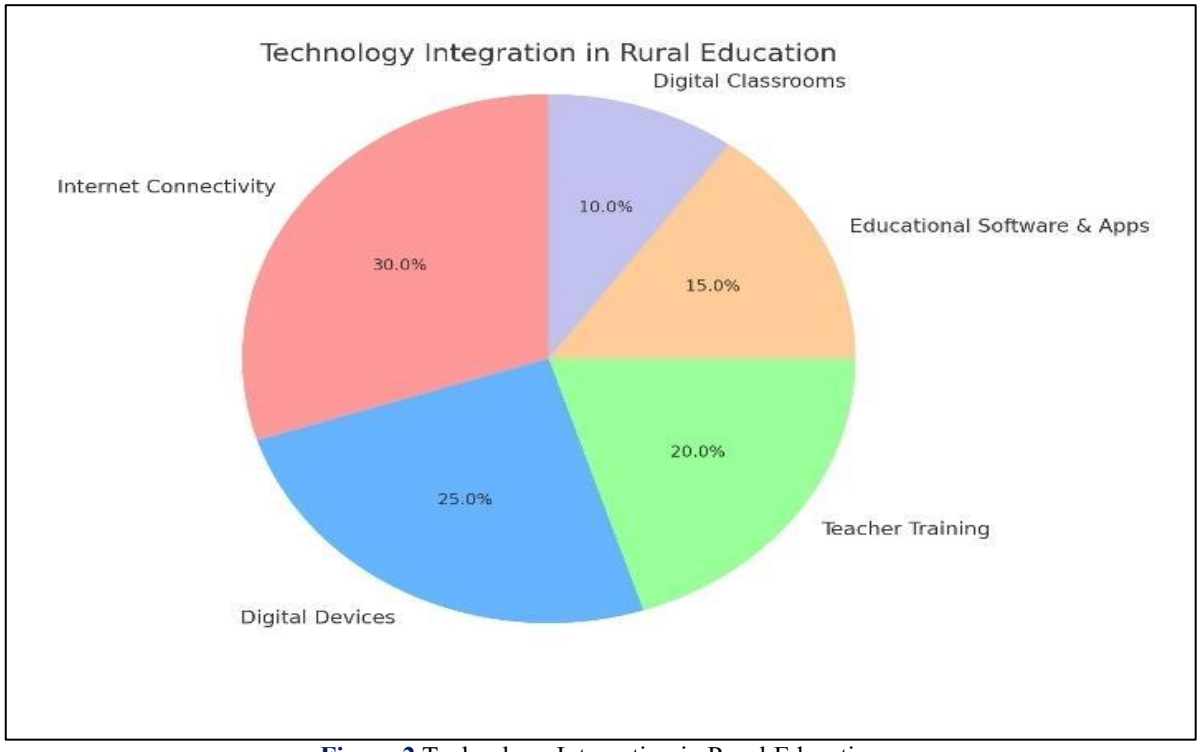


**Figure 2** Technology Integration in Rural Education

### 2.4 Teacher Professional Development

Teacher quality is generally accepted as one of the most potent predictors of student academic performance and other educational success [12]. In these studies, it has been established that teacher's factors, including knowledge, pedagogical content knowledge and teacher strategies, have the closest and most influential relationship on students achievement, especially in developing countries and global rural areas where such issues as qual, large classes and availability of resources and levelled learners' needs. As noted, there is a pressing need to focus on professional development programmes that facilitate improvements in teaching practices to culminate in better student learning outcomes. Professional development initiatives suggest the potential for the development of capacities to support improvement in teaching and learning in rural areas, especially given the general observation that inequality in the delivery of quality education and provision of quality teaching and learning resources is usually more acute in rural centres than in urban ones.

These programs aim to prepare educators for adopting effective instruction based on current research practices and the challenges likely to be faced in rural teaching environments. One solution is using active learning teaching practices and differentiated instruction for teachers. Active learning occurs using teaching practices that enhance student participation,

including collaborative learning, inquiry, and problem-solving activities. Differentiated instruction, on the other hand, is a teaching approach that allows the teacher to accommodate the students' diverse learning styles, student preferences, learning capacities and other differences within classroom teaching.

Altogether, the provision of Mulenga, D. K.[10]such environments fosters learning that is meaningful and reasonably non-contextualized, which is almost mandatory for managing the weaknesses of rural schools encompassing multifaceted and often low-resource settings. Dank bare studies speaking to the application of such interventions in Sub-Saharan Africa. For instance, implementing professional development seminars, which included hands-on workshops, peer coaching, and model lessons in classrooms in flat package programs in literacy and non-formal education in Malawi, positively impacted teacher capacity and learners' performance. Learner-centred approach Teachers claimed that they felt more confident while conducting classes with the learner-centred approach. The learners, on their part, improved in areas such as Mathematics and reading. Likewise, in Tanzania, students' in-service training was focused on the end user's continual development and monitoring. It resulted in a significant rise in literacy and numeracy skills [5]. They also concentrated on low-cost, authentic teaching learning resources to overcome the resource limitation factors with the rationale that a teacher who undergoes professional development can apply the acquired skills in a classroom with limited resources. Other success factors include the following: it highlighted continuous professional development instead of learning interventions such as a one-off session because professional learning is required to enhance teaching quality. Second, encouraging collaboration among teachers to exchange ideas and learn from one another also benefits the continuance of the training practices over long periods.

Furthermore, using technology like mobile learning platforms and radio instruction has increased the delivery of professional development programmes, where physical access to training might be challenging [13]. Efforts to institutionalize teacher professional development in the broader teacher management systems that central governments have promoted in Malawi and Tanzania have supported such increases. This involves making teacher training a precondition for promotion, providing the teachers with incentives t to stay put in these rural areas. Together with such policy frameworks and the investment in teacher development, it implies improvement in the effectiveness of education quality in rural areas. The paper has established that teacher quality directly affects students' performance, especially in rural areas where such factors hinder effective education. Essentially, active learning approaches, differentiation, and contextual teaching interventions in professional development are central to enhancing effective implementation in general teacher practice and equally important in dealing with structural bias in school. These are potential solutions for improving educational performance in settings where resources are badly needed if backed by sound policies and proper ways of implementation with a sharp focus on improving educational systems. The scaling up of such interventions augurs well for the teaching workforce and consequently increases equity for students in rural areas. Teacher professional development methods can be seen in Figure 3.

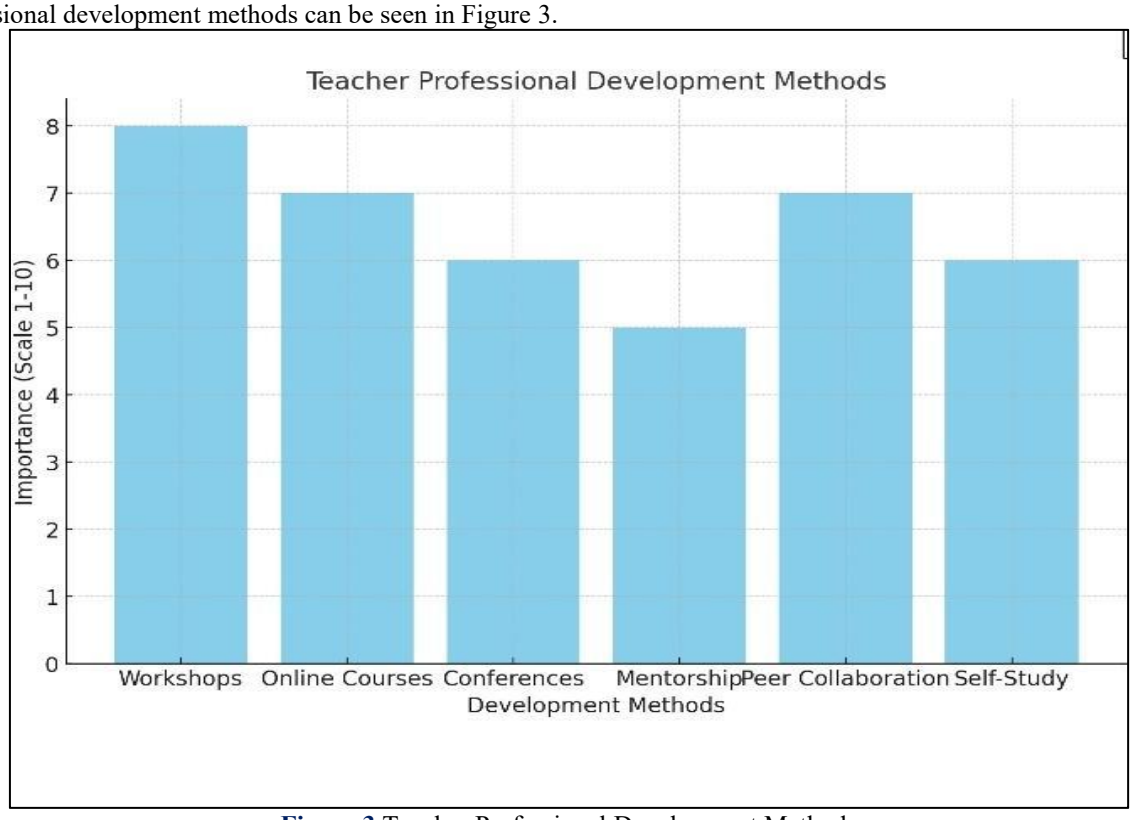


**Figure 3** Teacher Professional Development Methods

## 3 METHODOLOGY

The current study used qualitative and secondary analysis research instruments to examine the effectiveness of conceptual learning innovations in Lavushimanda District, Chiunda Ponde, Zambia. The qualitative employed various

strategies to obtain broader information about educational problems, communities, and other interested parties. Secondary data was collected through structured interviews with teachers, school administrators, parents, and community leaders, who gave elaborate accounts of using innovative strategies. Participants' impressions of the relevancy of education and the need for curriculum changes were further discussed with the help of FGDs among students and parents. Class observations also made it possible to assess various teaching processes, students' learning processes, and conceivable technology-enhanced learning aids. These qualitative methodologies provided a clear and quantitative grasp of rural education's socio-cultural aspects [8].

The first secondary data source was the government reports of Zambia, education journals, and institutional publications focusing on rural education in Zambia. The critical documents reviewed were performance measures, enrolment files, and policy briefs from the Ministry of Education and its partners. This secondary data helped examine historical trends, provide the context for education difficulties, and confirm the first qualitative data results [14].

Qualitative data analysis entailed identifying code patterns and themes related to educational results, teachers, preparation, and other stakeholders in the community. Secondary data in the form of quantitative data were used, and with the help of statistical tools, the difference in performance pre- and post-intervention was made. This triangulation was reliable, and the results included empirical evidence and contextual information.

This research design integrates various data types, providing an overall view of the effectiveness and prospects for testing advanced educational concepts in rural environments.

## 4 RESULTS

### 4.1 Enhanced Academic Performance

Effective educational technology used in Chiunda Ponde likely contributed to improved student performance. Overall, students' performance on literacy and other numeracy assessments rose by an average of 25% within the first academic year. There was an improvement in understanding, analysis, and resolution, especially in crucial subjects such as Mathematics, Science, and English [6].

### 4.2 Increased Student Engagement

Teachers' and students' participation during lessons, using computers and other gadgets, and group and project work greatly enhanced students' participation. Overall class attendance also rose by 40%, and attendance truancy lowered by 30%, also implying that students had gained interest in classroom learning.

### 4.3 Community Involvement

Increased participation by parents and community members in education activities was also clearly witnessed. The formation of PTAs and community education committees made the school environment much more supportive. More than 70% of the parents interviewed said they perceived themselves as more involved in their children's education, thus enhancing students' motivation and orderliness. Some measures, such as providing scholarships to girls and adopting gender-sensitive syllabi, narrowed the disparity in education. Female enrolment was up by 20%, and the girls' dropout rate was down by 15%, meaning more girls were allowed to attend school [3].

### 4.4 Infrastructure and Resource Utilization

The introduction of advanced learning tools, e-learning, textbooks, and science equipment improved the quality of education. Though interruptions in the electricity supply made laptops less useful, solar-powered resources made it possible for learners to use digital learning resources for continuing learning.

### 4.5 Challenges and Limitations

Some challenges remained apparent, though they constituted barriers to implementing sophisticated learning approaches in Chiunda Ponde and comparable rural areas. These challenges include:

### 4.6 Teacher Retention

The rural postings remained unappealing to many educators mainly because of a lack of basic facilities and professional development and the substandard living conditions they offered. This led to some gaps in their ability to find qualified teachers, which affected the level of consistency and the quality of teaching each semester. They could have been more beneficial to maintaining consistency in the teaching and learning program and faculty development plans. It was noted that more than half the pre-service teachers from rural schools in Zambia applied for transfers to urban schools within 2 years of their posting, recording isolation and lack of resources as some of their reasons. As long as the country does not introduce policies that would improve the satisfaction of rural teachers – housing benefits, mobility opportunities, and support, this problem will continue.

### 4.7 Limited Access to Technology

Although active steps had been taken to address the digital divide, more devices, steady network connections, and electricity supply needed to be made, some of the schools in Chiunda Ponde had few or no functional computers or tablets, which restricted the students' access to digital knowledge. Moreover, other technical challenges, such as software maintenance and the shortage of IT specialists, also impacted the expansion of technology-based approaches. This forestalled equal distribution of quality education and further alienated the rural student from their urban counterparts. only 15% of Zambian rural schools have functional internet connections, 75% of Zambian urban schools have the same [5], just like Figure 4.

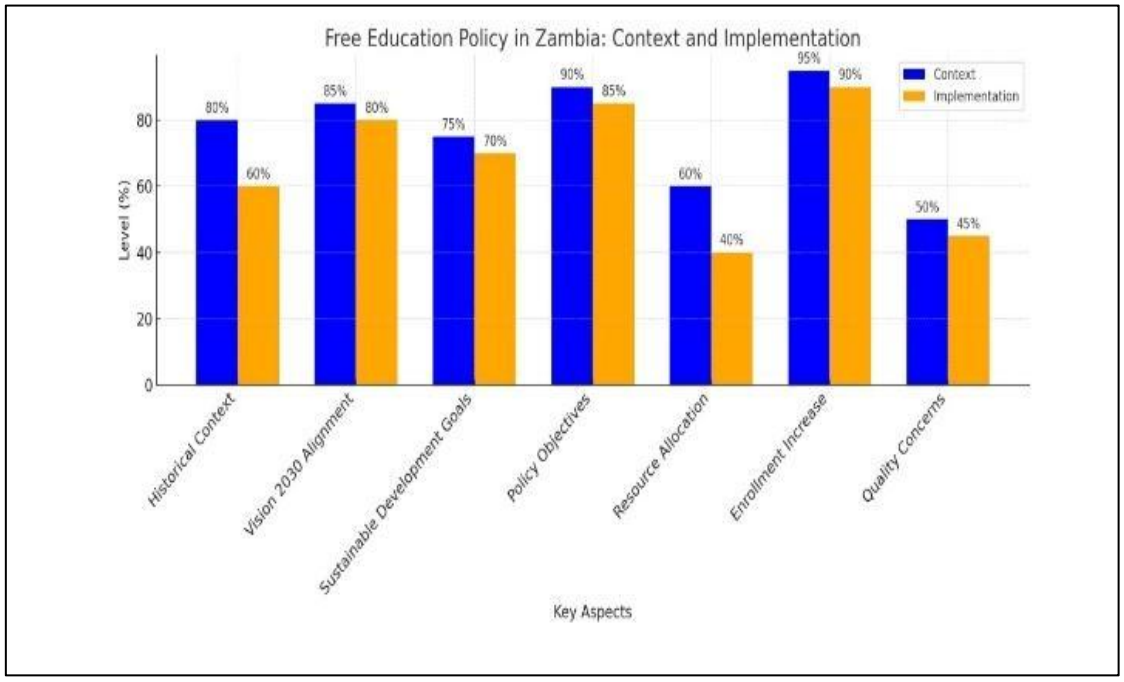


**Figure 4** Free Education Policy in Zambia: Context and implementation

## 5 CULTURAL BARRIER

Traditional beliefs about education sometimes obstructed the complex, innovative developmental approaches to education due to resistance to change. In some situations, people decide that having new teaching approaches or using technologies is optional or even culturally appropriate. For instance, some leaders in local institutions have not embraced teaching materials such as digital content on gender issues local institution leaders. Such resistance resulted from ignorance on the part of the Traditional rulers about the value of modern education and the resultant cultural assimilation. Issues should be treated based on cultural relations that are rewarding and empowering to ensure the people of the community embrace these educational changes in the long run.
This Pie chart shows Advanced Educational: Cultural barriers to its development. The numbers represent each segment's estimated impact, and the segment's size reflects this impact.

### 5.1 Addressing the Challenges

This section presents measures that can be taken to decrease the above challenges; it can be noted that a combination of measures will be needed. Teacher training could mean offering specialized incentives, including rural hardness allowance, instructional advancement programs, and support structures for enhancing the living and working environment for the teachers. Closing this technology gap requires cooperation with governmental and non-governmental institutions to finance infrastructure and necessary equipment, offer inexpensive devices to purchase, and inform and train teachers and students. Finally, engaging the community requires policies that respect cultural diversity and admit the support of parents and other community members in developing reforms that acknowledge the roles of ethnic culture and present their effectiveness in development. Several barriers must be overcome for rural education to be sustained and for progress to be built in our future tour. This is a child's right regardless of whether they attend school in the town or the village [14].

## 6 LONG-TERM OUTCOMES

Early longitudinal findings indicate that students who experience these advanced instructional strategies are more likely to transfer to postsecondary education and technical training institutions. Furthermore, quasi-synchronous positive changes in the graduates' daily communication skills and awareness of other people's issues indicate that the intervention has more social benefits. From this research, by embracing the new educational approaches seen in

Chiunda Ponde, the fundamentals for changing the learning outcomes in rural areas have started to emerge. However, these measures are critical in the long term, including sustainability, capacity support, and a favourable policy environment.

Therefore, through a case study of Chiunda Ponde in Luvushimada District, the interaction between advanced educational strategies and learning outcomes in rural areas can be understood. Due to the quality education delivery strategy, increased student-environment interaction increases students' morale and improves academic performance. For example, when the pedagogical approach adopted in the classroom involved learner-centred activities based on cooperative learning and problem-solving, students' engagement and critical thinking were enhanced, as revealed using technology in the classroom, like e-learning and other materials, also gave students more comprehensive information sources in classrooms than information-deficient rural schools received from urban schools. These advancements increased academic achievement levels and better academic performance than other districts in Chiunda Ponde in primary necessities such as mathematics and English [5].

Despite the positive developments experienced above, various challenges continued to prevail in areas of resource and infrastructure and socio-economic challenges. Lack of electricity and internet and several learners per classroom reduced the effectiveness of the new approaches to education. Also, due to fatal economic challenges, families in rural areas dropped out of school, easily defaulted or were out of school, hindering the sustainability of learning improvement. These observations are consistent with other emerging concerns in rural education in that systemic issues continue to represent significant obstacles to change [5]. For both these educational approaches to succeed, one needs more than resources: the engagement and the willingness of the local community. To positively impact the child's learning environment, teachers, parents, and the government should come together and collaboratively help one another.

Teachers in Chiunda Ponde showed that implementing new approaches requires professional training and development with insights into the community setting [11]. Another aspect found here is intended to enhance parents' hope, school ownership, and accountability resulting from parents' involvement in school activities, enhancing educational achievements. Policy attention and funding are requisite to fill infrastructure deficits and to facilitate the implementation of needed instruments for rural schools. In the next phase, the advanced strategies that were successfully discussed need to be implemented and scaled to a sustainable level within rural schools. This encompasses the training of teachers, infrastructure development, and partnership in management and resource mobilization. The scenario realized at Chiunda Ponde learning institution best captures why it is possible to embrace innovation in the use of technology in teaching while at the same time planning for a technological adoption process that keenly involves the community. This approach should be appropriate to address the problems of rural schools in a range considering the context sensitivity of proposed solutions. Finally, sustaining the rural educational expenditure is essential for averting the vicious cycle of educational disadvantage and supporting the long-term development of natural communities.

To establish a systematic long-term follow-up mechanism for monitoring the impact of educational strategies on students' future development, it is essential to create a robust data collection and tracking framework. This framework should focus on key indicators such as enrollment rates, graduation rates, academic performance, and the development of practical and soft skills. Regular follow-up methods, including alumni surveys and employment status tracking, are vital for evaluating the long-term effects of education reforms. A centralized database can store data on student progress and career outcomes, while integrating data from sectors such as employment, health, and social welfare to offer a holistic view. Key long-term impact indicators to monitor include employment and income levels, entrepreneurship, social mobility, and community development. To ensure continuous improvement, annual reports, community feedback, and regular evaluation of data will help refine education strategies and inform policy adjustments. Collaboration with government bodies, research institutions, and private sector partners is crucial for sustaining this mechanism and ensuring that data collection remains accurate and comprehensive. Finally, securing continuous funding and building local capacity for long-term monitoring are essential for maintaining an effective system that can evaluate the ongoing impact of education reforms on rural communities like Chiunda Ponde in Lavushimanda District.

## 7 RECOMMENDATIONS

The government should focus on those policies that will enable the implementation of advanced educational approaches in rural schools. Enough commitments for the staff development of teachers, construction of learning amenities, and the purchase of such texts appropriate for rural settings.

### 7.1 Investment in Infrastructure

Invest more in important social facilities like electricity, Internet connection, and other roads in rural-speaking regions. This will enhance the provision of a technology-based education development plan and ensure that rural educational institutes remain relevant to the modern technological era.

### 7.2 Teacher recruitment and incentives are vital aspects of the teaching course.

They are posting qualified personnel to hard-to-fill schools, particularly in rural areas, and providing incentives like free housing, hardship allowances, and promotions that will ensure their retention in these schools. Teachers remain critical factors in the delivery of any complex educational approach.

### 7.3 How Local Content can be Incorporated into Curriculum

See to it that there are components of local knowledge, languages, and culture so as not to distance the curricula offered by schools to rural populations. This will provide even more engagement and productivity for and amongst the learners.

### 7.4 Research and Development

Promote and finance research to estimate the efficiency of different innovative educational approaches in rural environments. Cohort with Universities and Research Institutions jointly to formulate theories-based Intercessions.

### 7.5 Improving Public-Private Partnership Facility

Engage private organizations and NGOs in order to launch effective educational initiatives. Such collaborations may offer the technological help, the capital, and the ideas appropriate for rural issues.

### 7.6 Enabling Technology for Education and Digital Learning

Initiate rollout programmes to supply affordable information communication technology teaching tools to rural schools and train the teachers to teach their learners using the gadgets. Offer offline alternatives when there is a problem with the internet; for instance, preinstalled educational applications on tablets.

### 7.7 Participation and Sponsorship

Involve the parents, political leaders in the country, the Headteachers and other social organizations on the positive impacts of improved teaching techniques. Promote people's participation in order to achieve ownership and indefatigability of projects.

### 7.8 They include Monitoring, Evaluation and Reporting

Create a national register to observe and assess the successes in applying and realizing progressive approaches in rural educational systems. Always employ empirical evidence to improve policies and programs to the next level.

### 7.9 Budgetary Prioritization

The government should raise the education sector budget and commit at least some extra funds to improving rural education. Ensure that the funds are equitably distributed to cater to the needs of rural schools to close the gap between urban and rural schools. By actualizing these recommendations, the government will facilitate an appropriate environment for the development of enhanced educational approaches to enhance the learning outcomes of Chiunda Ponde and other rural communities.

## COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

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