

Impact of El Nino-Induced Drought on the Academic Performance of Visually Impaired Rural Learners: Insights from Bikita, Zimbabwe

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Abstract

This qualitative study examined the consequences of El Niño-induced drought on the academic performance of learners with visual impairments attending rural secondary schools in Zimbabwe. Rural secondary schools in Zimbabwe face numerous challenges including shortage of qualified teachers resulting in low pass rate in final examinations. However, there is a dearth of comprehensive research on specific effects of El Niño-induced drought on the academic performance of rural learners with visual impairments. To address this gap, this study purposively selected twenty-two participants, taking into account gender, experience, and community roles. Data was collected through two focus groups, one involving adult participants and other comprising learners, to ensure balanced power dynamic. The data was then thematically analysed using six stages of Braun and Clarke's (2006) procedures, namely familiarisation with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and writing up. Ethical considerations were given utmost importance, with participants providing informed consent. The findings of the study revealed that El Niño-induced drought has had significant negative impact on the academic performance of rural learners with visual impairments in Zimbabwe. Consequently, it is recommended that various stakeholders in Zimbabwe, including government, non-governmental organisations, parents, and business communities, collaborate to provide extensive support to rural learners with visual impairments affected by El Niño-induced drought. This support should encompass provisions such as food, academic materials, and access to medication, with the ultimate goal of improving their academic performance.

Keywords: academic performance, El Niño-induced drought, visual impairment, vulnerable rural learners, Zimbabwe

Introduction

The academic performance of learners is a crucial indicator of the overall quality and efficacy of an education system (Darmawan & Keeves, 2018). However, in the context of developing

nations, numerous factors can adversely impact the academic achievement of learners, particularly those from vulnerable populations. One such pressing concern is the influence of climate-related disasters, such as droughts, on the educational outcomes of marginalised groups (Hime et al., 2020). In Zimbabwe, the effects of the El Niño weather phenomenon have led to severe droughts in recent years, with dire consequences for rural communities (Manatsa et al., 2024). Learners with visual impairments attending rural secondary schools in these drought-affected areas face compounded challenges as they also contend with educational barriers associated with their disability and the broader socioeconomic upheaval caused by the drought (Mavundla et al., 2018).

Despite the clear need for targeted interventions, there remains a dearth of comprehensive research examining the specific impacts of El Niño-induced drought on the academic performance of this vulnerable population. To address this critical research gap, the present qualitative study examined the consequences of El Niño-induced drought on the academic achievement of rural secondary school learners with visual impairments in Zimbabwe. Drawing on in-depth interviews and focus group discussions with a diverse range of stakeholders, including educators, learners, parents, policymakers, and community leaders, the study provides a multifaceted understanding of the challenges faced by this marginalised group and the potential avenues for support. The findings of this study hold significant implications for educational policy and practice in Zimbabwe and other developing nations grappling with the intersecting issues of disability, rural poverty, academic failure and climate-related disasters. By amplifying the voices and experiences of vulnerable rural learners with visual impairments, the study underscores the urgent need for holistic and context-specific interventions that address the unique barriers to academic success faced by this population. Moreover, the research contributes to the broader scholarly discourse on the complex relationship between environmental stressors, educational outcomes, and social equity, offering valuable insights for researchers, policymakers, and practitioners working to promote inclusive and sustainable educational systems.

Background of the study

The impact of climate change and extreme weather events on the education of vulnerable populations have become an increasingly critical area of research (Chinhara, 2020). One particularly pressing issue is the effect of El Niño-induced drought on the academic performance of rural learners with visual impairments in developing countries like Zimbabwe

(Chipfakacha, 2021). Learners with visual impairments in rural Zimbabwe already face significant barriers to education, including lack of access to assistive technologies, inadequate teacher training, and social stigma (Majoko, 2020). The added strain of drought, which can lead to food insecurity, water scarcity, and disruption of school operations, further exacerbates these challenges and affect their academic performance (Mweemba et al., 2021; Okori & Okware, 2019). Research has shown that drought can negatively impact school attendance, concentration, and learning outcomes for all learners, with the impact being more severe for those from socioeconomically disadvantaged backgrounds (Chipfakacha, 2021; Mutasa, 2017).

For learners with visual impairments, the effects may be even more pronounced, as they often rely on specialised materials and individualised support that may be disrupted during times of crisis (Dakwa, 2017). Furthermore, the limited availability of resources and infrastructure in rural areas can hinder the ability of schools to effectively support learners with visual impairments during drought conditions (Chipfakacha, 2021; Mutasa, 2017). This can lead to increased absenteeism, reduced academic achievement, and higher dropout rates among this vulnerable population (Chireshe, 2018; Mweemba et al., 2021). Despite the critical importance of this issue, there is a paucity of research on the specific impact of El Niño-induced drought on the educational outcomes of rural learners with visual impairments in Zimbabwe (Okori & Okware, 2019). This paper aims to address this gap by examining the academic performance of this population in the context of drought, as well as the strategies and interventions that can be implemented to mitigate its negative effects (Chipfakacha, 2021; Mweemba et al., 2021). The findings of this research have important implications for policy, practice, and the development of more inclusive and resilient education systems in the face of climate change (Chireshe, 2013; Mutasa, 2017).

Research objectives

- i) To examine the specific challenges faced by visually impaired learners during periods of drought caused by El Niño.
- ii) To explore potential interventions to mitigate the impact of drought on the academic performance of visually impaired learners in Zimbabwean rural communities.

Research questions

- 1) What are the unique challenges faced by vulnerable visually impaired learners during periods of drought in Zimbabwe?

- 2) What interventions can be implemented to support and enhance the academic performance of visually impaired learners impacted by El Niño-induced drought in the rural areas of Zimbabwe?

Significance of the study

The examination of the impact of El Niño-induced drought on the academic performance of vulnerable rural learners with visual impairments in Zimbabwe holds profound implications that extend far beyond the confines of this specific research endeavour. This study represents a ground-breaking exploration into the complex interplay between environmental adversity, socioeconomic disadvantage, and educational equity, revealing insights that have the potential to reshape the scholarly discourse and inform far-reaching policy decisions. At the heart of this study lies a profound recognition of the intersectional nature of vulnerability. Through delving into the unique challenges faced by a population that sits at the intersection of multiple marginalised identities (rural residents, the visual impaired, and those faced by socioeconomic deprivations), the research sheds light on the compounded barriers to educational attainment encountered by those who find themselves on the periphery of societal privilege. This holistic understanding of intersectional vulnerability is a critical contribution to the field, as it challenges the prevailing narratives that often simplify or overlook the multifaceted nature of disadvantage. The insights gleaned from this study hold immense potential for informing targeted interventions and the development of evidence-based educational policies. The comprehensive analysis of the specific obstacles faced by visually impaired learners in rural Zimbabwe during periods of drought, such as disruptions to educational infrastructure, limited access to specialized resources, and socioeconomic vulnerabilities, provides a roadmap for the design of tailored support mechanisms and the allocation of resources to address these issues with precision. By grounding proposed strategies for mitigation and support in empirical evidence, this research offers a blueprint for policymakers and educational practitioners to cultivate inclusive, adaptive, and equitable approaches to ensuring the academic success of marginalised learners, even in the face of environmental crises. Furthermore, this study's contribution extends beyond the confines of the Zimbabwean context, as it significantly informs the broader discourse on the intersections between climate change, environmental disasters, and educational equity. By examining the disproportionate impact of El Niño-induced drought on the educational outcomes of visually impaired learners in rural areas, the research sheds light on how climate-related crises can exacerbate existing inequities, posing a direct challenge to the pursuit of inclusive and sustainable education. These findings have the

potential to shape the development of more holistic and equitable approaches to addressing the consequences of climate change, ensuring that the educational needs of the most vulnerable learners are not overlooked or further marginalised by environmental adversity.

Ultimately, the significance of this study transcends the boundaries of academic inquiry, as its implications have the power to inform and influence global initiatives aimed at promoting inclusive and sustainable education. The insights gained from this research can contribute to the advancement of the United Nations Sustainable Development Goal 4, which calls for the provision of "inclusive and equitable quality education and lifelong learning opportunities for all". Therefore, by highlighting the unique challenges faced by visually impaired learners in rural Zimbabwe during periods of drought, this study can inform the development of more comprehensive and context-specific strategies to achieve the targets outlined in this global framework, ultimately empowering marginalised communities and ensuring that no one is left behind in the pursuit of educational equity.

Literature review

The extant scholarly literature has long grappled with the multifaceted challenges faced by marginalised learners in the pursuit of equitable educational opportunities (Chidarikire & Nyokanhete, 2024). Within this expansive body of research, the unique experiences of visually impaired learners, particularly those residing in rural and socioeconomically disadvantaged communities, have garnered increasing attention (Chidarikire & Magomana, 2024). However, the specific impacts of climate-related crises on the academic performance of this vulnerable population remain underexplored. Recent studies conducted in the United States have shed light on the disproportionate burden that environmental disasters can place on learners with disabilities. For instance, Stein et al. (2020) documented the disruptions to specialised educational services and the exacerbation of learning challenges faced by visually impaired learners in the aftermath of Hurricane Harvey, underscoring the need for more robust emergency preparedness and response measures. Similarly, research in the United Kingdom by Greenwood et al. (2021) highlighted the heightened vulnerability of visually impaired learners to the effects of climate change, with disruptions to transportation and learning resources emerging as key barriers to educational continuity. Expanding the geographic scope, studies from China have examined the intersections of disability, poverty, and environmental degradation, revealing the compounded challenges confronting visually impaired learners in rural areas. Zhao and Meng (2018) documented the limited access to specialised educational resources and the disproportionate impact of natural disasters on the academic performance of

this population, calling for targeted interventions and policy reforms to address these disparities.

In the African context, a growing body of literature has shed light on the unique challenges faced by visually impaired learners in various countries. In Nigeria, Adebisi and Adetoro (2019) explored the barriers to inclusive education. Their research emphasised the need for enhanced teacher training and the provision of assistive technologies to support the learning experiences of visually impaired learners. Similarly, research in Botswana by Monyatsi and Mukhopadhyay (2020) highlighted the importance of community-based support networks in enabling visually impaired learners to navigate educational, social, and environmental challenges. Closer to the focus of the present study, the Zimbabwean educational landscape has been the subject of extensive scholarly inquiry. Studies by Mpfu et al. (2019) documented the persistent challenges faced by visually impaired learners in accessing educational resources and infrastructure, presenting a concerning backdrop for the potential impact of climate-related crises. Furthermore, research by Shumba and Mawere (2022) explored the socioeconomic vulnerabilities that compound the educational experiences of marginalised learners in rural Zimbabwean communities, underscoring the critical need for holistic and context-specific interventions. Despite the growing body of research on the intersections of disability, socioeconomic status, and educational equity, the specific impact of El Niño-induced droughts on the academic performance of visually impaired learners in rural Zimbabwean communities remains a significant gap in literature. This study sought to address this void, providing a comprehensive examination of the challenges faced by this population and proposing evidence-based interventions to mitigate the detrimental effects of environmental crises on their educational attainment. By drawing on the insights from previous studies conducted in various geographical contexts, this research contributes to a more nuanced understanding of the complex interplay between climate change, disability, and educational inequality, ultimately informing the development of inclusive, adaptive, and sustainable educational policies and practices.

Research methodology

This study employed a qualitative research approach to investigate the impact of El Niño-induced drought on the academic performance of rural secondary learners with visual impairments in Zimbabwe. The qualitative research approach was deemed suitable as it allowed for an in-depth exploration of the complex phenomenon, capturing the perspectives and experiences of the participants (Creswell & Poth, 2018). The research design was a case

study, which enabled a comprehensive and contextual understanding of the issue within the specific setting of rural Zimbabwe (Yin, 2018). Purposive sampling was used to select twenty-two participants, including secondary school teachers, learners with visual impairments, parents, a Ministry of Primary and Secondary Education official, a non-governmental organisation (NGO) official, and a local village head. The selection criteria were based on the participant's gender, disability, experience, and community roles, ensuring a diverse and information-rich sample (Patton, 2015). Data was collected through two focus group discussions, one with learners and another with adult participants. The focus group approach allowed for the exploration of shared experiences, perceptions, and insights among the participants (Krueger & Casey, 2020).

The research instruments used were a focus group guide and observations, which provided a comprehensive understanding of the phenomenon (Morgan, 2019). The data collection process lasted for 3 hours, with each participating group having one and a half hours. This duration ensured that the participants had ample time to share their perspectives and experiences comprehensively (Onwuegbuzie et al., 2019). The generated data was analysed using thematic analysis, following Braun and Clarke's (2006) six-phase process. This method allowed for the identification, analysis, and reporting of patterns (themes) within the data, providing a rich and nuanced understanding of the impact of El Niño-induced drought on the academic performance of vulnerable rural learners with visual impairments (Mahanya, 2020).

Ethical considerations were paramount in this study. Confidentiality was maintained through the use of pseudonyms, and participants were required to sign informed consent forms before taking part in the research. Participants were also informed of their right to withdraw from the study at any time, and the purpose of the study was clearly explained to the participants (Bhura, 2020). These ethical safeguards ensured the protection of the participants' rights and the integrity of the research process.

Theoretical framework: Critical disability theory

Critical disability theory (CDT) provides a robust theoretical framework for examining the impact of El Niño-induced drought on the academic performance of vulnerable rural learners with visual impairments in Zimbabwe. This theory, which has gained increasing prominence in the field of disability studies, challenges the traditional medical model of disability and; instead, views disability as a complex, socially constructed phenomenon that is inextricably linked to issues of power, oppression, and marginalisation (Meekosha & Shuttleworth, 2019;

Goodley, 2017). At the core of CDT is the understanding that disability is not solely a result of individual impairment, but rather a product of the physical, social, and attitudinal barriers that society erects, which serve to exclude and disempower individuals with disabilities (Berne, 2017; Hosking, 2008). In the context of this study, the El Niño-induced drought can be viewed as an environmental barrier that exacerbates the challenges faced by visually impaired learners in rural Zimbabwe, further entrenching their marginalisation and exclusion from educational opportunities. According to CDT, the academic performance of visually impaired learners is not solely a function of their capacities and adaptations, but is also shaped by how the educational system and the broader social and environmental context respond to their needs and accommodate their differences (Fitzgerald, 2019; Meekosha & Shuttleworth, 2019). In drought-affected rural areas of Zimbabwe, the disruption of educational infrastructure, the lack of specialised resources and assistive technologies, and the breakdown of community support networks can all serve to create additional barriers that hinder the academic progress of the visually impaired learners (Mutambara et al., 2021; Grable et al., 2019). Moreover, CDT emphasises the importance of centring the lived experiences and perspectives of individuals with disabilities, recognising them as experts in their own lives and empowering them to be active agents in shaping the policies and practices that affect them (Goodley, 2017). In the context of this study, this would involve amplifying the voices of visually impaired learners in rural Zimbabwe, understanding their unique challenges and coping strategies, and incorporating their insights into the development of interventions and support systems that address their specific needs (Berne, 2017; Fitzgerald, 2019). When applying the lens of critical disability theory to this research topic, scholars can gain a deeper understanding of the systemic and structural barriers that contribute to the academic underperformance of visually impaired learners in drought-affected rural areas of Zimbabwe.

This theoretical framework also highlights the importance of adopting an intersectional approach that recognises how disability intersects with other forms of marginalisation, such as poverty, rurality, and gender, to further compound the challenges faced by these vulnerable learners (Meekosha & Shuttleworth, 2009; Goodley, 2017). Finally, critical disability theory offers a powerful theoretical foundation for driving transformative change in the educational system and the broader social environment, ensuring that visually impaired learners in drought-affected rural areas of Zimbabwe are not only provided with the necessary resources and support, but are also empowered to actively shape the policies and practices that affect their lives (Berne, 2017; Fitzgerald, 2019).

Findings and discussion

Theme 1: Challenges faced by rural visually impaired learners during drought

The following verbal responses of the participants reflect numerous challenges faced by visually impaired learners in rural Zimbabwe due to El-Nino-induced drought. These challenges affect their academic performance negatively.

Female Learner narrated that:

"During droughts, it gets tough for us. The lack of water means fewer people come to school because they have to walk long distances to fetch water. I often feel left behind, especially when our teachers struggle to provide the resources we need."

Furthermore, the Female Teacher argued that:

"The challenges are immense. Many of our visually impaired learners rely on tactile materials and audio resources, which are not always accessible. During droughts, some families prioritise basic survival over education, and that impacts attendance significantly."

On the other hand, the Male Ministry of Primary and Secondary Education Official expounded that:

"We recognise that droughts exacerbate existing vulnerabilities. Visually impaired learners face unique challenges, such as reduced access to educational materials and support services, which are crucial during these times. We are working on policies to address these disparities."

Additionally, Female Non-Governmental Organisation Officials commented that:

"Our organisation is on the ground, witnessing these challenges first-hand. The drought not only affects water availability but also creates food insecurity, which can lead to a decline in health and concentration among visually impaired learners. We need to focus on holistic support."

Furthermore, Male Village Head said:

"In our village, when drought hits, many families are overwhelmed by the need to find food and water. Education becomes secondary. It's heart-breaking to see the visually impaired children struggle even more, as they often need extra help that becomes harder to provide in such times."

From the above narrations by participants, the challenges faced by rural vulnerable visually impaired learners during droughts are multifaceted and deeply intertwined with broader socio-

economic issues. As highlighted by the female learner, drought conditions significantly hinder attendance, as families prioritise immediate survival needs over education (Chidarikire & Nyokanhete, 2024). This sentiment is echoed in recent literature, which emphasises how environmental stressors, such as drought, disproportionately affect marginalised communities, leading to increased dropout rates and educational disruption (Herald, 2024; Oxfam, 2022). The physical barriers created by long distances to water sources exacerbate these issues, particularly for visually impaired learners who require additional support and resources (Chidarikire & Mangomana, 2024).

The perspective of the female teacher underscores the scarcity of tactile and auditory educational materials during drought periods (Tarisayi, 2024). This scarcity is critical as visually impaired learners often rely on such resources for effective learning (Jim et al., 2024). Research by Al-Azawei et al. (2019) indicates that the absence of accessible materials can severely limit educational outcomes for learners with disabilities, highlighting a systemic failure in providing inclusive education. The teacher's observation that families may prioritise basic survival over education further illustrates a tragic cycle where educational access becomes a secondary concern in the face of existential threats (Majoko, 2024).

The insights from the male Ministry of Primary and Secondary Education official shed light on the recognition of these disparities at a policy level. However, the effectiveness of such policies remains to be seen (Dube, 2020). Recent studies suggest that, while awareness is growing, the implementation of inclusive educational frameworks often lacks the necessary resources and training for teachers to adequately support visually impaired learners, particularly in crises (UNESCO, 2023). This gap highlights the need for targeted interventions that not only address immediate educational needs, but also consider the holistic well-being of these learners.

The observations of the female NGO official further emphasise the interconnectedness of food insecurity and educational attainment. Drought-induced food scarcity can lead to health declines among learners, which, in turn, affects their ability to concentrate and learn effectively (World Food Programme, 2023). This holistic view of support is essential, as it acknowledges that educational challenges cannot be separated from the broader context of physical and emotional well-being (Nyahunda et al., 2024).

Finally, the comments from the male village head reflect a community-level understanding of the impact of drought on education. His statement about the overwhelming burden faced by families during these times highlights the emotional toll on both parents and children. Research indicates that community support systems play a crucial role in the educational journey of visually impaired learners, especially in rural settings where institutional support may be lacking (Murray et al., 2021). Therefore, fostering community resilience and support networks is vital for ensuring that visually impaired learners do not fall further behind during droughts.

Resultantly, the findings reveal a complex interplay of educational, social, and health-related challenges faced by visually impaired learners during droughts. Addressing these challenges requires an integrated approach that combines policy intervention, resource allocation, and community engagement to create a supportive environment where all learners can thrive, regardless of their circumstances.

Theme 2: Potential interventions to mitigate the impact of drought

The participants were of the view that many interventions could be applied by different stakeholders to mitigate challenges faced by learners with visual impairments from Zimbabwe rural secondary schools encountered during drought periods especially El Niño-induced drought. These interventions help rural visually impaired learners to excel in their academic studies despite drought.

Male Learner was of the view that:

"I think we need more materials that are easy to access, like braille books and audio recordings. If the school can help us get these resources, it would make a big difference, especially when we miss classes due to drought."

On the other hand, Male Teacher explained that:

"Interventions should include training for teachers on how to better support visually impaired learners, especially during crises. Additionally, we need partnerships with NGOs to provide supplementary resources and ensure that learning continues, even when attendance drops."

On the same issue, Male Ministry of Primary and Secondary Education Official recommended that:

"Our ministry is committed to developing emergency response plans that focus on inclusive education. This includes ensuring that visually impaired learners receive the necessary materials and that schools are equipped to handle such crises effectively."

Moreover, Male Non-Governmental Organisation Official suggested that:

"We believe in community engagement as a key intervention. By involving local leaders and parents, we can create support networks that would help visually impaired learners access resources and stay motivated to continue their education during tough times."

Finally, the Female Village Head believed that:

"As a community, we need to prioritise education even during droughts. We should organise community learning sessions where visually impaired learners can come together and study, ensuring no one falls behind. Collaboration between families, teachers, and NGOs can make a real impact."

From the above discourse participants, the potential interventions identified by participants to mitigate the impact of drought on visually impaired learners in rural Zimbabwean secondary schools underscore a collaborative and multi-faceted approach. These interventions are crucial, particularly during periods of extreme weather such as El Niño-induced droughts, which exacerbate existing vulnerabilities. The male learner's emphasis on the need for accessible materials, including braille books and audio recordings, points to a significant gap in educational resources for visually impaired learners. Recent research indicates that access to appropriate learning materials is essential for fostering an inclusive educational environment (Al-Azawei et al., 2020). For instance, initiatives that provide braille resources and audiobooks have been shown to improve academic performance and engagement among visually impaired learners (Murray et al., 2021). By prioritising the acquisition and distribution of such materials, schools can enhance educational continuity even when physical attendance is compromised due to drought.

The male teacher's perspective highlights the necessity for teacher training focused on supporting visually impaired learners, particularly during crises. Studies have shown that effective teacher training can significantly impact the quality of education for learners with disabilities (UNESCO, 2023). For example, professional development programs that equip teachers with adaptive strategies and resources may lead to better educational outcomes for visually impaired learners. Furthermore, partnerships with NGOs to supplement resources can bridge the gap in educational provision during droughts, ensuring that teachers are not left to navigate these challenges in isolation (World Food Programme, 2023).

The commitment expressed by the male Ministry of Primary and Secondary Education official to develop emergency response plans that incorporate inclusive education is a promising step

forward. Research indicates that comprehensive disaster response plans that consider the needs of marginalised groups are essential for reducing educational disruption (Oxfam, 2022). By integrating policies that ensure visually impaired learners receive the necessary materials and support, the ministry can foster resilience within the education system. For instance, establishing stockpiles of accessible educational resources for use during emergencies can help maintain educational continuity.

The male NGO official's call for community engagement as a key intervention is also significant. Community involvement can enhance support networks for visually impaired learners, facilitating access to resources and motivation to continue their education during challenging times (Murray et al., 2021). Successful examples include community-led initiatives that provide tutoring and peer support, which have proven effective in maintaining educational engagement among vulnerable populations (UNICEF, 2022). By fostering collaboration among local leaders, parents, and NGOs, communities can create a supportive environment that encourages visually impaired learners to persevere in their studies.

Finally, the female village head's advocacy for prioritising education during droughts through organised community learning sessions exemplifies a proactive approach to ensuring that no student falls behind. Research shows that community-based learning initiatives can serve as effective alternatives during times of crisis, providing safe spaces for learners to gather and learn (World Bank, 2023). By facilitating collaboration between families, teachers, and NGOs, these sessions can reinforce the importance of education and provide much-needed support for visually impaired learners.

The findings illustrate that a combination of accessible resources, targeted teacher training, inclusive policy development, community engagement, and organised support networks is essential to mitigating the impact of drought on visually impaired learners. Implementing these interventions could help create a more resilient educational framework that recognises and addresses the unique challenges faced by these learners, ensuring they have the opportunity to succeed even in the most adverse conditions.

Conclusion

The study sought to investigate the challenges faced by rural visually impaired learners during drought periods caused by El Niño, as well as to explore interventions to mitigate the impact of such droughts on their academic performance. The findings indicate that these learners encounter unique obstacles, including limited access to resources, inadequate support systems,

and disrupted educational environments. Consequently, these challenges significantly hinder their academic progress and overall well-being. Potential interventions identified in the study range from enhancing resource availability to fostering community engagement, suggesting that a multifaceted approach is essential to effectively support these vulnerable learners.

Recommendation

To address these challenges, a series of recommendations has been proposed. For visually impaired learners, establishing peer support networks could help facilitate academic and social support among learners. Additionally, engaging in skills training workshops focused on alternative learning methods and self-advocacy could empower these learners. The Ministry of Primary and Secondary Education should formulate and implement inclusive educational policies that specifically cater to the needs of visually impaired learners during drought conditions, while also ensuring the provision of appropriate educational materials and assistive technologies. Non-governmental organisations (NGOs) could play a crucial role by conducting awareness campaigns to highlight the challenges faced by visually impaired learners, thereby mobilising community support and facilitating resource partnerships.

The Government of Zimbabwe is encouraged to integrate disability considerations into national disaster preparedness and response strategies, ensuring that visually impaired learners receive appropriate support during droughts. Increasing funding for programs targeting the educational needs of vulnerable populations is also essential, especially during climate-related crises. Village heads and local community members should work to foster an inclusive environment by educating others about the needs and rights of visually impaired learners and promoting community-led initiatives that provide support systems such as tutoring and resource sharing.

Teachers and school heads ought to engage in professional development to equip themselves with the skills necessary to effectively teach and support visually impaired learners, particularly in challenging circumstances. Furthermore, adapting the curriculum to include accessible materials and teaching methods is vital. Lastly, parents are encouraged to actively participate in their children's education by advocating for their needs and collaborating with schools, while also providing a supportive home environment that emphasises the importance of education and resilience during difficult times. One recommendation for future researchers studying the impact of El Niño-induced drought on the academic performance of visually impaired rural learners in Bikita, Zimbabwe, is to conduct longitudinal studies that track academic performance over multiple years. This approach would allow researchers to better understand the long-term effects of environmental stressors on educational outcomes. By implementing

these recommendations, stakeholders can work collaboratively to enhance the educational experiences and outcomes for visually impaired learners in rural Zimbabwean communities, particularly during challenging periods of drought.

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