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EFFECTS OF MILD VISUAL IMPAIRMENT ON LEARNERS' PARTICIPATION IN PHYSICAL ACTIVITIES IN SPECIAL SCHOOLS IN JINJA DISTRICT, UGANDA

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Abstract:
Although learners with mild visual impairment have a level of functional vision, they are still significantly hampered in their desire to actively participate in physical activities in inclusive schools in sub-Saharan Africa, and particularly in Uganda. This study sought to investigate the effects of mild visual impairments on learners' participation in physical activities in Special schools in Jinja District of Uganda. Adopting a descriptive survey research design with a mixed methods approach, combining questionnaires, interviews and observations, data was collected from a sample of 110 participants from a population of 122 individuals, including head teachers, special needs teachers, and learners with mild visual impairments. Analysis of the data collected revealed that 25% of parents believed that mild visual impairments could limit their children's participation in physical activities. However, 57.1% of learners agreed that they are impacted by their physical condition, while 42.9% reported participation without any significant adjustments. Respondents also revealed the major barriers to their active participation, including reduced sensory awareness, visual discrimination, and social exclusion. It was recommended that schools should ramp up efforts in providing low-vision aids, improve teacher training, and promote peer interaction to improve peer-to-peer support within their school settings.

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1. Introduction

Mild visual impairment, characterized by partial loss of vision that significantly affects visual acuity but allows for some functional sight, presents unique challenges to learners' participation in physical activities. Unlike severe visual impairment, where total or near-total loss of vision requires extensive adaptive measures, learners with mild visual impairment often face subtle but impactful barriers in physical education settings. Historically, the inclusion of students with visual impairments in physical education has been limited due to a lack of tailored instructional strategies and specialized resources (Groce *et al.*, 2019). However, with the increasing emphasis on inclusive education, global frameworks such as the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) advocate for the integration of students with disabilities into all aspects of learning, including physical activities (UN, 2006).

Globally, many developed countries have established adaptive physical education programs to support learners with visual impairments, ensuring their active participation in school sports and recreational activities (Sherrill, 2020). These efforts include modifications such as the use of high-contrast equipment, auditory cues, and specialized coaching methods to accommodate students with partial vision loss (Haegele & Lieberman, 2017). However, in many developing nations, particularly those in Sub-Saharan Africa, limited infrastructure, inadequate training for educators, and societal attitudes toward disability continue to hinder the full participation of students with mild visual impairment in physical education (Mwaura, 2019).

In Uganda, the integration of learners with visual impairments in physical education remains a challenge due to resource constraints and limited awareness of inclusive teaching practices (Mugisha & Alhassan, 2018). Although special schools exist to support students with disabilities, these institutions often prioritize academic subjects over physical well-being (Gichuru, 2020). According to the Uganda National Council for Disability (2020), while policies promote inclusivity, implementation remains inconsistent, leaving many students with mild visual impairment without the necessary accommodations to fully engage in physical activities. In Jinja District, in particular, the lack of specialized sports equipment, trained instructors, and supportive peer environments further exacerbates the exclusion of visually impaired learners from physical education programs (Kiyimba *et al.*, 2020).

This study was underpinned by the Social Model of Disability, which asserts that disability arises from societal barriers rather than individual impairments (Oliver, 2013). By emphasizing environmental and institutional factors that limit participation, the study aims to draw attention to the importance of inclusive practices that facilitate the engagement of learners with mild visual impairment in physical activities. The World Health Organization (2018) defines physical activity as any bodily movement that

enhances physical fitness and well-being, underscoring its relevance to both health and social inclusion. In the same vein, Freeman and Goodall (2019) emphasize that inclusion entails the meaningful participation of individuals with disabilities in all domains of life, including education and recreation.

Empirical studies indicate that learners with mild visual impairment face unique barriers in physical education. While they may retain some vision, difficulties such as depth perception issues, reduced visual field, and sensitivity to light can hinder their ability to navigate sports environments safely and effectively (Houwen *et al.*, 2009). Research further suggests that individuals with mild visual impairments engage in lower levels of physical activity compared to their sighted peers due to these challenges and a lack of appropriate accommodations (Daubert *et al.*, 2018). Additionally, vision impairment has been linked to reduced motor coordination, social isolation, and lower self-esteem, further discouraging participation in physical activities (Aslant *et al.*, 2012).

Despite the benefits of physical activity for learners with visual impairments, the absence of inclusive and adaptive physical education programs remains a significant barrier. Many Ugandan schools lack the necessary modifications, such as high-contrast markings, textured surfaces, and audio-assisted training methods, which could facilitate participation for students with mild visual impairment (Jacobson, 2022; Lopez & Thompson, 2020). Furthermore, a shortage of trained educators with expertise in adaptive physical education exacerbates the exclusion of visually impaired students from school sports and recreational activities (Henderson *et al.*, 2021).

The psychological and social aspects of mild visual impairment also play a role in participation rates. Students may experience anxiety, fear of injury, or reluctance to join in activities where their visual limitations are noticeable to peers (Kwan & Tan, 2021; Arkin & Shanker, 2022). Access to assistive technology, such as brightly colored balls, sound-adapted equipment, and guided movement techniques, has been shown to enhance engagement in physical activities (Burns & McDonald, 2020; Nwachukwu & Olapade, 2022). However, financial constraints and limited availability of such resources in many Ugandan schools hinder their widespread implementation.

Thus, this study sought to explore the effects of mild visual impairment on learners' participation in physical activities in Jinja District, Uganda. By identifying the key challenges and potential solutions, the study aims to contribute to the development of more inclusive physical education programs that cater to the needs of students with mild visual impairments. The findings will inform educators, policymakers, and stakeholders on effective strategies to enhance the participation of learners with mild visual impairment in physical activities, ultimately fostering a more inclusive educational environment.

2. Methodology

2.1 Design of the Study

This study employed a descriptive survey design to examine the effects of mild visual impairment on learners' participation in physical activities in Jinja District, Uganda. According to Kombo and Tromp (2009), a descriptive survey design allows researchers to systematically analyze phenomena and present findings in a structured manner. This approach facilitates a comprehensive understanding of the existing conditions (Creswell & Creswell, 2018). A mixed-methods approach was utilized, integrating qualitative and quantitative data collection techniques to enhance the study's validity and reliability (Creswell & Plano Clark, 2021). Qualitative data captured learners' experiences and challenges, while quantitative data measured participation levels and emerging trends.

2.2 Population and Sample Size

The target population for this study comprised 122 individuals, including head teachers, deputy head teachers, special needs teachers, visually impaired learners with mild visual impairment, and parents from special schools in Jinja District, Uganda. These participants were selected based on their direct involvement with visually impaired learners and their engagement in physical activities, ensuring a comprehensive understanding of the effects of mild visual impairment on learners' involvement in physical activities (Saunders, Lewis & Thornhill, 2016). A sample size of 110 was determined using Morgan and Krejcie's (1970) formula, with purposive sampling applied for school administrators and teachers, while parents and learners were selected through random sampling. This approach captured diverse perspectives, enabling a thorough analysis of challenges and opportunities in enhancing physical activity participation among visually impaired learners.

2.3 Data Collection Procedure and Tools

The study employed both non-probability and probability sampling techniques to ensure a diverse and representative sample. Purposive sampling, a non-probability method, was used to select head teachers and parents from special centers based on specific inclusion criteria, while simple random sampling, a probability method, was applied to select visually impaired learners. Data collection instruments included a self-administered, non-participatory observation and an interview guide. The questionnaire, designed for both parents and learners, consisted of two sections: demographic information and items examining the relationship between the independent and dependent variables. The parents' questionnaire featured 21 items on a four-point Likert scale, while the learners' version comprised 12 items. Additionally, an interview guide with nine open-ended questions was used to collect qualitative data from head teachers, deputy head teachers, and special needs teachers. These methods facilitated a comprehensive understanding of visually impaired learners and their engagement in physical activities, ensuring an in-depth analysis of the effects of mild visual impairment on their participation.

2.4 Validation

Validity refers to the accuracy, correctness, and meaningfulness of inferences drawn from research findings (Kothari, 2008). To ensure validity, the questionnaires were reviewed by the experts and experienced academic staff at the College of Education, Open, Distance, and E-Learning of Kampala International University. The content validity index (CVI) was calculated using the formula: CVI = (Number of items considered relevant by judges) / (Total items judged). Reliability, which measures the consistency of a research instrument under constant conditions, was established through pre-testing and re-testing after two weeks. Cronbach's Alpha was used to determine the reliability of the research instruments, ensuring consistency in data collection.

2.5 Data Analysis

Data analysis involves applying reasoning to interpret collected data, identify patterns, and summarize key findings (Zikmund *et al.*, 2012). After data collection, responses were edited to ensure completeness. Quantitative data were coded and analyzed using the Statistical Package for Social Sciences (SPSS) version 20.0, with frequencies and percentages used to describe demographic characteristics, while means and standard deviations were computed for research objectives. Qualitative data underwent thematic analysis, where key themes were identified from respondents' views. To ensure confidentiality, respondents were assigned alphabetical code names.

2.6 Ethical Considerations

Participation in the study was voluntary, with respondents required to sign an informed consent form. They were assured of the confidentiality and privacy of the information provided. All cited authors were appropriately referenced, and the study findings were presented in accordance with the identified study procedures.

3. Results

3.1 Quantitative Findings

The effect of mild visual impairment on learners' participation in physical activities in special schools in Jinja District, Uganda, was assessed using a four-point Likert scale. Respondents indicated their level of agreement or disagreement, categorized as follows: Strongly Agree (mean range: 3.25-4.00), Agree (mean range: 2.50-3.24), Disagree (mean range: 1.75-2.49), and Strongly Disagree (mean range: 1.00-1.74). This scale facilitated the measurement of parental perceptions regarding the effect of mild visual impairment on students' participation in physical activities.

Table 3.1: A Summary of Descriptive Statistics of the Effect of Mild Visual Impairment on Learners' Participation in Physical Activities in Special Schools

Statement	Frequency (n=44)	Percentage (%)	Mean	Standard Deviation (SD)
Mild visual impairment limits my child's participation in physical activities.	11	25.0%	2.00	0.85
The school provides adequate support for children with mild visual impairment to engage in physical activities.	22	50.0%	3.00	0.90
My child with mild visual impairment struggles to participate in physical activities due to insufficient specialized equipment.	13	29.5%	2.25	1.15
The physical activities offered at school are suitable for children with mild visual impairment.	18	40.9%	2.75	0.70
Mild visual impairment creates fewer barriers to my child's participation in school physical activities.	11	25.0%	2.00	0.85
Additional resources and modifications are still needed for mild visual impairment.	22	50.0%	3.00	0.90

Source: Primary data.

A mean of 2.00 indicates that only 25% of parents feel mild visual impairment limits participation in physical activities. This suggests that mild visual impairment presents fewer challenges compared to severe or moderate cases, allowing children to participate more easily in activities.

The perception of school support is neutral to positive, with a mean of 3.00 and 50% agreement. While schools seem to offer more support for children with mild visual impairment, there is still room for improvement in meeting their needs.

A mean of 2.25 shows that only 30% of parents believe there is a lack of equipment for children with mild visual impairment. This suggests that while these children may not require as much specialized equipment, support remains beneficial for their participation.

With a mean of 2.75 and 45% agreement, parents feel that physical activities are somewhat suitable for children with mild visual impairment. Schools appear to be making more effort to adapt activities for these children, though improvements can still be made.

Only 25% of parents agree that mild visual impairment creates barriers, with a mean of 2.00. This indicates that mild visual impairment poses fewer obstacles, allowing children to participate more fully in physical activities compared to those with more severe visual impairments.

Finally, a mean of 3.00 shows that 50% of parents believe additional resources are needed. While mildly blind children may not face as many challenges, parents still see the value in providing extra support to ensure these children can thrive.

Additionally, the effect of mild visual impairment on learners' participation in physical activities in special schools in Jinja District, Uganda, was further examined by asking learners to express their level of agreement using a dichotomous response format. Learners were asked to indicate their agreement by responding "Yes" or their disagreement by responding "No." This approach offered a straightforward and effective means of capturing learners' perceptions regarding the influence of mild visual impairment on their involvement in physical activities.

Table 3.2: A Summary of Descriptive Statistics of the Effect of Mild Visual Impairment on Learners' Participation in Physical Activities in Special Schools (n=35)

Statement	Yes	No	Percentage of Yes (%)	Percentage of No (%)
Mild visual impairment impacts my participation in physical activities.	20	15	57.1	42.9
The physical activities provided are suitable for learners with mild visual impairment.	25	10	71.4	28.6
I participate in physical activities with minimal adjustments due to my mild visual impairment.	28	7	80.0	20.0
Additional modifications would help improve my participation in physical activities.	22	13	62.9	37.1

Source: Primary data.

Slightly more than half of the respondents (57.1%) agreed that mild visual impairment impacts their participation in physical activities. Although the impact is less pronounced than for those with severe or moderate blindness, it still indicates that learners with mild visual impairments face some challenges, such as difficulty following fast-paced activities or reading visual cues. Schools should recognize these more subtle needs and provide appropriate adjustments to accommodate learners with mild visual impairment.

A strong majority (71.4%) of respondents felt that the physical activities provided are suitable for learners with mild visual impairment. This reflects a generally positive outlook on the provisions currently in place. However, it also suggests that there is room for improvement to make activities even more inclusive. Schools should continue to fine-tune their physical education programs, ensuring they address the needs of learners across the spectrum of visual impairment.

A substantial 80.0% of learners with mild visual impairment participate in physical activities with minimal adjustments. This demonstrates that learners with mild visual impairments are able to engage more readily in physical activities compared to their peers with more severe impairments. Schools should maintain these adjustments but also be prepared to provide additional support when necessary, ensuring that all learners, regardless of the severity of their blindness, can participate fully.

More than half (62.9%) of respondents believe that additional modifications would further improve their participation in physical activities. This suggests that while minimal adjustments are effective for most, some learners still encounter barriers that could be addressed with further adaptations, such as clearer instructions, visual aids, or

slight modifications to the physical environment. Schools should be proactive in seeking feedback from learners and continuously improving their physical activity programs to ensure full accessibility.

3.2 Qualitative Findings

3.2.1 Barriers to Participation

Respondent B03 noted that learners with mild visual impairment encounter barriers such as "*reduced visual discrimination and spatial awareness*," which, while less severe than those faced by learners with severe visual impairment, still impact their participation. Respondent B06 commented that these barriers differ in terms of the level of visual impairment and the extent of modifications needed: "*The challenges for learners with mild visual impairment are less intense but still significant, requiring specific adjustments*."

The barriers described by Respondent B03 and B06 highlight that while learners with mild visual impairment face less pronounced challenges compared to those with severe visual impairment, their participation is still affected. These barriers necessitate targeted modifications that are less extensive than those for severe visual impairment but still crucial for effective engagement. Recognizing these differences emphasizes the need for differentiated approaches to accommodate varying levels of visual impairment.

3.2.2 Modifications and Adaptations

Respondent B08 discussed modifications such as "*high-contrast visual aids and larger equipment*," which have proven effective in enhancing participation. Respondent B10 observed that these changes have led to "*noticeable increases in involvement*," demonstrating the positive impact of these adaptations.

The modifications described by Respondent B08 address specific needs of learners with mild visual impairment, such as visual aids and equipment adjustments. The positive outcomes reported by Respondent B10 suggest that these adaptations are effective in increasing participation. This reinforces the importance of tailored modifications to support engagement and underscores the effectiveness of practical adjustments in improving student involvement in physical activities.

3.2.3 Successful Strategies and Programs

Respondent B12 provided examples of successful strategies, including "*tailored physical education programs and the use of assistive technologies*." Respondent B15 highlighted factors contributing to success: "*Aligning strategies with learners' specific needs and involving them in the planning process have been key to the success of these programs*."

The successful strategies shared by Respondent B12 and B15 underscore the importance of personalized and inclusive approaches in physical education. Tailoring programs to meet specific needs and involving learners in planning enhances effectiveness and engagement. These factors contribute significantly to successful outcomes, highlighting the value of customization and active participation in program development.

4. Discussion of the Findings

4.1 Effects of Mild Visual Impairment on Learners' Participation in Physical Activities

This study sought to examine the effects of mild visual impairment on learners' participation in physical activities, addressing the third objective of the research. The findings demonstrate that learners with mild visual impairment, defined as having limited but functional vision, face distinct, albeit often manageable, challenges when participating in physical education and related activities. While they are more capable of engaging independently compared to peers with moderate to severe visual impairment, the need for inclusive practices and thoughtful accommodation remains critical.

Learners with mild visual impairments retain a certain level of visual acuity that allows them to interpret the environment, navigate spaces, and identify larger visual cues. This relative functionality supports their participation in a broader range of physical activities compared to individuals with complete or severe vision loss. Respondent D02 observed that although these learners can engage in physical activities, they encounter notable difficulty in fast-paced or visually demanding contexts such as competitive team sports. This concern aligns with recent findings by Teixeira, Fonseca, and Oliveira (2022), who assert that learners with low vision experience difficulties in processing quick visual stimuli, which hinders their coordination and reaction time during dynamic activities.

Consequently, activities that require rapid spatial awareness, such as basketball, football, or relay races, can be particularly taxing. Learners may find it difficult to track balls, judge distances accurately, or coordinate with peers in real time. These findings are supported by Reyes, Gomez, and Taylor (2023), who argue that the performance of learners with mild visual impairment in physical education is influenced more by visual complexity than by physical exertion. This implies that even with good motor skills, limited visual input impairs full participation in certain contexts.

The study revealed that learners with mild visual impairment exhibit a relatively high degree of autonomy when supportive measures are in place. Respondent D05 noted that such learners are often able to participate without direct assistance, provided that environmental and equipment-based modifications are made. Examples include using brightly colored balls, tactile boundary markers, or clear verbal instructions. According to McLinden and Douglas (2021), minor instructional and equipment adjustments significantly enhance the confidence and performance of students with mild visual impairments in physical activities. These adaptations also contribute to reducing safety concerns, thereby fostering greater freedom of movement and reducing the risk of injury. Furthermore, learners with mild visual impairments benefit from environments where teachers are trained to understand their needs. Empirical evidence by Alnahdi, Schwab, and Seifert (2021) emphasizes the importance of teacher preparedness in supporting inclusive physical education. Teachers who adopt inclusive strategies, such as breaking down activities into manageable steps or offering guided participation, enable learners to thrive despite visual limitations.

Beyond the physical domain, the study emphasized the social challenges faced by learners with mild visual impairment in physical education settings. Respondent D09 highlighted that these learners often struggle with elements of teamwork, peer competition, and social integration. This struggle is attributed not only to their visual impairment but also to the attitudes and expectations of peers and educators. Consistent with these observations, Kabasakal and Tutkun (2022) report that students with visual impairments frequently encounter subtle exclusion from group activities, which undermines their self-esteem and willingness to engage.

In particular, learners may experience social anxiety stemming from their perceived inability to perform at the same level as their sighted peers. When not adequately addressed, such social barriers can reduce participation and motivation. As identified by Marquez-Vera, Domínguez-Garrido, and Torres-Gordillo (2023), inclusive social environments that foster collaboration, empathy, and mutual respect significantly improve the psychological well-being of students with disabilities, including those with mild visual impairment.

The importance of inclusive physical education practices emerged as a dominant theme in this study. Respondent D12 pointed out that when activities are designed to accommodate all learners, including those with mild visual impairments, participation and motivation notably increase. This statement resonates with the findings of Chan and Fung (2022), who argue that inclusive strategies, such as flexible rules, diverse activity options, and supportive peer engagement, create environments where all learners feel competent and valued.

It is essential to recognize that inclusion is not limited to accessibility or visibility. Rather, it involves a holistic approach that embraces emotional, cognitive, and social dimensions. As supported by contemporary literature, when learners with disabilities are immersed in inclusive cultures that acknowledge and celebrate diversity, they exhibit enhanced engagement, motivation, and academic achievement (Ahmed and Hwang, 2022).

5. Conclusion

Findings reveal that while learners with mild visual impairment encounter fewer barriers compared to their severely blind peers, tailored modifications remain vital for their participation in physical activities. Effective adaptations, such as high-contrast aids and larger equipment, enhance engagement and promote inclusivity. The positive perceptions from parents regarding the suitability of existing programs suggest that schools are making strides in accommodating these learners. However, ongoing adjustments and individualized approaches are necessary to address any remaining barriers and ensure that all learners can fully engage in physical activities.

5.1 Implications

To begin with, the study highlights the critical need for comprehensive teacher training in inclusive physical education methodologies that address the specific needs of learners with mild visual impairments. Despite these learners demonstrating a relatively higher level of independence, they still encounter notable challenges in activities requiring acute visual accuracy. Without adequate training, educators may lack the skills to identify and respond to these subtle limitations effectively. Professional development initiatives should, therefore, equip teachers with evidence-based strategies such as the use of auditory guidance, tactile markers, and high-contrast visuals. These interventions not only enhance the learners' safety and participation but also foster a more equitable and supportive learning environment.

Furthermore, the findings of the study stress the importance of implementing physical education programs that integrate both physical accessibility and social inclusion. While learners with mild visual impairment may participate more independently, they often face difficulties in the social aspects of physical activities, including teamwork, communication, and competitive engagement. This implies that program designers and educators should prioritize inclusive pedagogies that nurture interpersonal interaction and collaboration among all students. Incorporating structured peer support systems, inclusive team formations, and cooperative games can significantly improve the social experience of learners with visual impairments, fostering both confidence and a sense of belonging.

Lastly, the research draws attention to the pressing need for policy reforms that embed inclusive physical education practices into mainstream education systems. The participation and success of learners with mild visual impairments are significantly influenced by the presence or absence of institutional support. Policies that clearly define inclusive standards, such as the provision of adaptive equipment, individualized support plans, and monitoring mechanisms, are essential for sustaining long-term equity in schools. Establishing such frameworks ensures that inclusive education is not sporadic or optional, but rather a consistent and measurable component of school performance and learner well-being.

5.2 Recommendations

In light of the findings, it is recommended that schools incorporate low-vision aids into physical education environments to support learners with mild visual impairment. The use of high-contrast markers, tactile boundaries, and auditory cues can significantly enhance the learners' ability to participate safely and confidently in various activities. These tools help to mitigate visual limitations by enhancing visibility and spatial orientation. By embedding such aids into everyday practice, schools can promote a more inclusive learning atmosphere where all students, regardless of visual ability, can actively and meaningfully engage.

Equally important, schools should establish structured opportunities that encourage social interaction and collaborative engagement among learners with and

without visual impairments. Physical activities that promote teamwork, mutual support, and shared goals can strengthen social bonds and reduce the risk of exclusion. Learners with mild visual impairment often face difficulties with the interpersonal aspects of group participation, making it essential to design inclusive games and peer-assisted strategies that foster belonging. Such practices not only improve the learners' social competence but also enhance their motivation and willingness to participate.

Moreover, there is a clear need for schools to implement a systematic approach to the continuous evaluation of accommodations provided to learners with mild visual impairments. Educational institutions should routinely assess the relevance and effectiveness of support strategies, ensuring they are tailored to the evolving needs of each learner. This process should involve regular consultations with the learners, physical education teachers, and support staff to gather feedback and make necessary adjustments. Maintaining an adaptive and learner-centered approach will ensure sustained engagement, promote educational equity, and reinforce the overall success of inclusive physical education initiatives.

Conflict of Interest Statement

The authors declare that there are no conflicts of interest in this work.

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References

Ahmed, H., & Hwang, Y. (2022). Inclusive education practices for students with visual impairments: A focus on social integration in physical education. *Journal of Inclusive Education Studies*, 28(3), 112–125.

Alnahdi, G., Schwab, S., & Seifert, S. (2021). Teachers' attitudes and self-efficacy towards inclusive physical education for students with visual impairments. *International Journal of Special Education*, 36(2), 34–47.

Arkin, S., & Shanker, R. (2022). Psychosocial barriers to physical activity among children with visual impairments: A qualitative perspective. *Journal of Disability Studies, 38*(2), 112–124.

Aslant, M., Sahin, S., & Koseoglu, E. (2012). Motor coordination and self-esteem in children with visual impairments. *International Journal of Special Education, 27*(1), 75–83.

Burns, K., & McDonald, J. (2020). Assistive technology in inclusive physical education: Enhancing participation for visually impaired students. *Adapted Physical Activity Quarterly*, 37(4), 298–310.

Chan, M. C., & Fung, A. L. (2022). Creating inclusive physical activity programs for students with disabilities: A practical framework for educators. *Education and Physical Activity Journal*, 45(1), 29–44.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications. Retrieved from https://www.ucg.ac.me/skladiste/blog_609332/objava_105202/fajlovi/Creswell.pdf

Creswell, J. W., & Plano Clark, V. L. (2021). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications. Retrieved from https://collegepublishing.sagepub.com/products/designing-and-conducting-mixed-methods-research-3-241842

Daubert, J., Etheredge, C., & Bourgeois, P. (2018). Physical activity patterns in children with mild vision impairments. *Journal of Visual Impairment & Blindness, 112*(5), 531–544.

Freeman, S., & Goodall, C. (2019). Inclusion of learners with disabilities: Global perspectives and practices. *Journal of Inclusive Education, 13*(3), 221–238.

Gichuru, M. (2020). Physical education priorities in special schools in Uganda: An exploratory study. *African Journal of Disability Studies, 9*(1), 85–98.

Groce, N., Kett, M., & Lang, R. (2019). Inclusive education and physical activity: Gaps and opportunities for learners with visual impairments. *Global Disability and Development Journal, 5*(2), 37–50.

Haegele, J. A., & Lieberman, L. J. (2017). *Physical education for children with visual impairments: Teaching strategies and resources*. Human Kinetics.

Henderson, K., Miller, T., & O'Neal, K. (2021). Teacher preparedness for adaptive physical education: A national survey. *Journal of Physical Education and Health, 14*(1), 47–56.

Houwen, S., Hartman, E., & Visscher, C. (2009). Motor skill performance of children with visual impairments and its impact on participation in physical education. *Research in Developmental Disabilities, 30*(3), 552–561.

Jacobson, R. (2022). Inclusive sports education: Addressing vision impairment in East African schools. *African Journal of Physical Activity and Health Sciences, 28*(3), 301–315.

Kabasakal, K., & Tutkun, E. (2022). Social inclusion and peer interaction among students with visual impairments in mainstream schools. *International Journal of Disability, Development and Education*, 69(5), 854–869.

Kiyimba, D., Nakabugo, M. G., & Luyombya, D. (2020). Inclusion challenges for learners with visual impairments in Jinja District primary schools. *Uganda Journal of Education and Development, 14*(2), 119–134.

Kombo, D. K., & Tromp, D. L. (2009). *Proposal and thesis writing: An introduction*. Pauline Publications Africa.

Kothari, C. R. (2008). *Research methodology: Methods and techniques* (2nd ed.). New Age International.

Kwan, J., & Tan, Y. (2021). The emotional impact of visual impairments in school-aged children: Implications for inclusive participation. *International Journal of Educational Psychology, 10*(2), 177–189.

Lopez, A., & Thompson, B. (2020). Textured learning spaces and adaptive strategies for visually impaired learners. *Educational Inclusion Quarterly, 11*(1), 44–60.

Marquez-Vera, C., Domínguez-Garrido, M. C., & Torres-Gordillo, J. J. (2023). The role of inclusive environments in promoting well-being among students with disabilities. *Journal of Educational Psychology Research*, *40*(1), 75–89.

McLinden, M., & Douglas, G. (2021). Enhancing physical education for learners with visual impairments through targeted instructional strategies. *British Journal of Visual Impairment*, 39(2), 205–217.

Morgan, J., & Krejcie, R. V. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607–610.

Mugisha, J., & Alhassan, M. (2018). Visual impairment and the challenges of inclusive education in Uganda. *East African Journal of Disability Studies, 6*(1), 72–84.

Mwaura, P. (2019). Barriers to physical activity for students with visual impairments in Sub-Saharan Africa. *African Review of Education, 11*(4), 122–137.

Nwachukwu, A., & Olapade, M. (2022). Sound-adapted tools and inclusion: Physical education strategies for learners with visual impairments in Nigeria. *Journal of Inclusive Pedagogy, 15*(2), 95–109.

Oliver, M. (2013). The social model of disability: Thirty years on. *Disability & Society*, *28*(7), 1024–1026.

Reyes, J., Gomez, L., & Taylor, R. (2023). Participation of students with visual impairments in school sports: Barriers and facilitators. *Physical Education and Sport Pedagogy*, 28(3), 321–339.

Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research methods for business students* (7th ed.). Pearson Education Limited.

Sherrill, C. (2020). *Adapted physical education and sport* (6th ed.). Human Kinetics.

Sullivan, A., & Haegele, J. A. (2021). Barriers to participation in physical education for students with visual impairments: An ecological model perspective. *Physical Education and Sport Pedagogy*, 26(1), 42–56.

Teixeira, A. C., Fonseca, J., & Oliveira, D. (2022). Physical education participation among students with low vision: Challenges and adaptations. *European Journal of Adapted Physical Activity*, 15(4), 145–160.

Uganda National Council for Disability. (2020). *Annual report on the status of inclusive education in Uganda*. Kampala: UNCD Publications.

United Nations. (2006). *Convention on the Rights of Persons with Disabilities*. New York: United Nations.

World Health Organization. (2018). *Global action plan on physical activity 2018–2030: More active people for a healthier world*. Geneva: WHO. Retrieved from https://iris.who.int/bitstream/handle/10665/272722/9789241514187-eng.pdf