

INFLUENCE OF PHYSICAL FACILITIES ON INCLUSION OF LEARNERS WITH PHYSICAL DISABILITIES IN PUBLIC PRIMARY SCHOOLS IN KISII CENTRAL SUB-COUNTY, KENYA

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ABSTRACT

The purpose of this study was to investigate the influence of physical facilities on the inclusion of learners with physical disabilities in Kisii Central Sub-County, Kenya. The research adopted the Social Model of Disabilities theory as its foundational framework. It employed a mixed-method approach and concentrated on 124 schools with 124 headteachers, 1949 teachers, and 92 learners with physical disabilities as its participants. The sample participants were selected by utilizing the Krejcie and Morgan (1970) table. The schools and learners with physical disabilities were selected through a simple random sampling technique, while teachers and headteachers were chosen through a stratified random sampling approach. Questionnaires and interview schedules served as the primary data collection tools, while a focus group discussion guide was utilized for engaging learners with physical disabilities. Additionally, an observation checklist was employed to assess school facilities. The piloting of instrument was conducted in a single school. The instrument's reliability was evaluated in the research study through a test-retest analysis. The researcher employed a blend of qualitative and quantitative methodologies for gathering data. The findings revealed mixed perceptions among participants regarding the effectiveness and implementation consistency of inclusive classroom practices such as accessible seating arrangements and adaptive outdoor equipment. The findings underscore the critical importance of physical facilities and in promoting inclusive educational environments. These findings suggest that investing in adequate infrastructure and providing accessible learning materials are pivotal in enhancing educational outcomes and inclusivity for students with diverse needs. Recommendations included fostering collaborative efforts among stakeholders to enhance the implementation and effectiveness of inclusive practices, thereby creating more supportive environments for learners with physical disabilities.

Keywords: *Physical Facilities, Inclusion, Learners with Physical Disabilities, Public Primary Schools*

INTRODUCTION

The Salamanca Statement, approved by UNESCO in 1994, advocates for inclusive education. This educational approach promotes the teaching of all students in a collaborative classroom

setting, regardless of their abilities, as a preferable option to isolating children with disabilities. The significance of education for all was stressed when the United Nations introduced the Sustainable Development Goals (SDGs) in 2015. SDG 4 specifically focuses on guaranteeing equal and inclusive access to high-quality education all throughout life. This aim acknowledges that education is necessary to give people the information and abilities they need to support sustainable development (United Nations, 2015). There are still issues even with the advancements made in the US toward inclusive education for children with physical impairments. Only 61% of students with disabilities were predominantly engaged in normal courses, according to a 2019 National Center for Education Statistics (NCES) study. A larger percentage of children with physical impairments-22%-were put in separate classrooms than those with other disabilities (NCES, 2019).

It is still difficult for kids with impairments to get an education in Sub-Saharan Africa, especially in Nigeria. According to UNESCO (2018) study, 25% of children in this region with impairments got access to schooling. But according to research conducted in Nigeria by Ajiboye et al., (2019) , children with physical impairments who attended schools with accessible surroundings did better academically, participated in extracurricular activities, and had more positive social interactions than their peers who attended schools with less accessibility. This aligns with the tenets of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), which prioritizes "reasonable accommodation" for full participation and equitable educational opportunities (United Nations, 2016).

An important turning point for inclusive education in Uganda was the country's acceptance of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2008. This dedication to protecting people with disabilities' right to an education, as highlighted in the UN observations that followed, profoundly influenced the nation's educational system. The emphasis on ensuring accessible and high-quality education tailored to individual needs became a central driver for change. This translated into directives aimed at creating inclusive learning environments that provide equitable opportunities for all students, enabling active and meaningful participation regardless of disability. These efforts resonate with the broader international movement towards inclusive education, reflecting a shared vision of diverse, accessible learning spaces where every learner can reach their full potential (UNCRPD 2010; United Nations, 2016).

In the Kenyan context, the history of students with physical disabilities traces back to post-World War II, with institutions like the Joy Town School for the Physically Handicapped and the Red Cross Society School for the Disabled established in 1961. Initially focusing on basic education and vocational training, these schools operated separately from mainstream education. Since the 1970s, there has been a growing recognition of the right of students with physical disabilities to an education alongside their peers in mainstream schools (Ministry of Education, 2018; United Nations Convention on the Rights of Persons with Disabilities, 2006). While challenges remain, recent years have seen significant progress in their active participation in regular classrooms (UNESCO, 2017).

Examining Kisii Central Subcounty public primary schools in Kenya reveals shortcomings in creating inclusive learning environments for students with physical disabilities. Insufficient accessible facilities such as ramps and restrooms, coupled with a lack of effective teacher training, contribute to the inadequacy in supporting these learners adequately (Mbugua et al., 2020). This context will form the foundational basis for investigating the influence of the learning environment on the inclusion of learners with physical disabilities in public primary schools in Kisii Central Sub-County, Kenya.

Statement of the Problem

Aspiring to seamlessly integrate students with physical disabilities into mainstream classrooms, inclusive educational settings aim to foster a sense of belonging and encourage diverse interactions that support both academic and social growth. These environments prioritize accessibility, well-equipped facilities, and adequately trained educators to ensure equitable participation among all students (Peters, 2020).

A marked discrepancy is evident within the public primary schools of Kisii Central Subcounty. According to the 2014 Kenya National Special Needs Education Report Survey, among the 7,620 learners in Kisii Central Sub County, 350 encounter physical disabilities. Despite this considerable number of students with physical disabilities, the current educational facilities are inadequate to sufficiently address their needs. Only 12 out of the 45 public primary schools in the sub county have taken measures to integrate students with physical disabilities. Although there are a few inclusive public primary schools in Kisii Central Sub County, their limited presence fails toward catering the needs of all students with physical disabilities. Consequently, numerous such students are compelled to attend ill-equipped mainstream schools, limiting their access to quality education and hindering their personal development (Kenya National Bureau of Statistics, 2014).

To tackle the challenges confronted by students with physical disabilities in public primary schools in Kisii Central Subcounty, it is imperative to establish facilities that are easily accessible, provide training for teachers, embrace inclusive practices and policies, raise awareness, and foster supportive classroom environments. This prompts the researcher toward researching on the influence of the learning environment on the inclusion of learners with physical disabilities in public primary schools in Kisii Central Subcounty, Kenya.

Purpose of the Study

The purpose of this research is to determine influence of physical facilities on inclusion of learners with physical disabilities in public primary schools in Kisii Central Sub County, Kenya.

LITERATURE REVIEW

Empirical literature review

According to Mukherjee and Shinde (2016), a learning environment encompasses the intricate interplay of physical, social, and emotional factors, all of which exert a significant influence on the learning journey. Sailor and Kleinert (2017) stress that an inclusive learning environment is purposefully created to meet the various requirements of all students, including those who have impairments, in the context of inclusion. To ensure physical accessibility, it is essential to implement features such as ramps and accessible restrooms, as recommended by Mukherjee and Shinde (2016). Furthermore, pedagogical techniques should be thoughtfully selected to align with various learning styles, as Smith and Jones (2019) suggest, which may include hands-on activities, collaborative learning, and peer tutoring. An additional critical aspect highlighted by Mukherjee and Shinde (2016) is the cultivation of a welcoming and supportive atmosphere within the learning environment, fostering a sense of belonging among all learners.

Physical disability is a comprehensive term encompassing various conditions or health issues, comprising both congenital and acquired afflictions (Mifflin, 2019). Individuals with such conditions experience significant and enduring constraints in performing routine daily activities. A person with a mild physical disability might face challenges in activities like ascending stairs and could rely on assistive tools such as wheelchairs, canes, crutches for mobility. Conversely, an individual with a profound physical disability would be unable to walk and would necessitate aid for movement (Mifflin, 2019). Various circumstances and

factors can impose limitations on mobility and movement, stemming from ineffective use of the arms, legs, or body trunk due to paralysis, stiffness, pain, or other constraints. These conditions may arise from illness, accidents, aging or congenital issues and can exhibit fluctuations from day to day. Additionally, they may give rise to associated conditions like hearing loss, short stature, and speech disorders (Siebers, 2018). Individuals with movement and mobility disabilities may encounter difficulties participating in social and physical situations. Despite facing these challenges, many are resilient, independent individuals eager to contribute to the best of their abilities. While some may be entirely self-sufficient, others might require full or part-time assistance (Johnstone, 2019).

The extent and nature of incapacitation are just a few facets of the diverse spectrum of disabilities, which can manifest as cognitive, motor, or sensory impairments. Visibility of impairment, the recurrence or progression of the issue, the individual's life expectancy, the level of pain or symptoms experienced, and the necessary care or treatment all contribute to the varied nature of disabilities. Unfortunately, a significant number of individuals with disabilities remain outside the educational system, enrolling at lower rates. Barriers such as lack of adaptability to the school environment, limited personal support, and a dearth of accessible educational opportunities contribute to this disparity. Other obstacles include transportation issues, inaccessible environments and infrastructure, insufficient policy implementation and negative attitudes from family, educators, and the community (Johnstone, 2019).

A study conducted by UNESCO in 2004 discovered that some school administrators perceive students with physical disabilities as unproductive and resource-intensive. These administrators believe that these students might struggle academically and pose financial burdens on the school. Contrary to these views, research indicates that children with physical disabilities often possess average or higher intelligence levels (Panda, 2019). According to research conducted by Losen and Martinez (2019), students with physical limitations actually have comparable rates of high school completion and college enrollment to their peers without disabilities.

Many children facing physical disabilities may struggle with their self-perception, yet with appropriate physical support, they can flourish in an inclusive setting alongside their peers without disabilities. These services contribute to academic integration, student mobility and recreational engagement. Students with special educational requirements necessitate tailored facilities to surmount learning obstacles. For instance, fundamental ramps and well-organized indoor classrooms are essential to cater to individuals with physical challenges (UNESCO, 2018).

A thorough declaration detailing the conditions for students with special needs attending regular schools was produced in 2003 by a task team tasked with implementing Free Primary Education (FPE). The report advocated for the establishment of an environment devoid of obstacles, furnished with resources accessible to children with disabilities. These measures encompass the installation of inclusive restrooms, enhanced facility accessibility, provision of dormitories, playgrounds, capacious classrooms endowed with ample illumination and ventilation, accommodations for wheelchair users, provision of group hearing devices, acoustics enhancement and the incorporation of ramps with stipulated gradients for seamless entry and exit (Ministry of Education, 2019).

Kadima (2019) conducted a study that revealed insufficient physical facilities within Kenyan schools catering to students with special needs. Classrooms experience overcrowding, restrooms lack seating and space, and instances of classes being held under trees were observed. Some schools demonstrated advancements with features like ramps and upgraded restroom facilities. However, the steep incline of the ramps presented difficulties for students

with physical disabilities, often necessitating aid from their peers for building access. Moreover, accessibility to amenities beyond ramps, like lavatories, hinged on the assistance provided by fellow students. The challenges persisted as students faced difficulties in independently navigating the built environment, particularly when encountering inclines and accessing various facilities.

Theoretical Framework

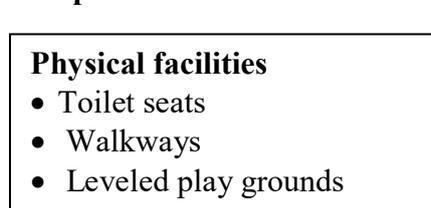
The investigation relied on the social constructionism theory proposed by Mike Oliver (1983). Oliver argues that disabilities, though rooted in the physical domain, are fundamentally linked to societal creations. According to this theory, incapacity goes beyond mere linguistic depiction and instead thrives within an extensive structure of collective connotations, discussions, and restrictions established by the environment within a particular context and timeframe. As delineated by the social model of disability, a multitude of individuals harbor physical or mental traits that have the potential to constrain their capacities in everyday existence. This theoretical framework posits that societal perspectives can exacerbate the obstacles encountered by those confronting physical or mental limitations. The premise here is that the impairments individuals experience is not inherently causative; instead, it is society's failure to adequately address their distinct necessities that hinders their progress. This conceptual approach categorizes these hindrances into three primary domains: elements within the environment, financial considerations, and cultural viewpoints (Oliver, 2013).

The selection of the social constructionism theory proposed by Mike Oliver is aptly suited for this study, considering its alignment with the exploration of disabilities within societal frameworks. Oliver argues that disabilities are not solely rooted in physical attributes; instead, they are intricately tied to societal perceptions, attitudes, and norms. This theory offers a lens to understand how societal constructs shape the experiences and opportunities of individuals with disabilities. The relevance of this theory lies in its recognition that disabilities are socially constructed phenomena, shaped by interactions and cultural dynamics, rather than being purely medical conditions. This merges well with the study's approach, which will encompass interviews, observations, and statistical analysis. Collectively, these methods will reveal how societal perspectives will influence inclusivity within the learning environment for learners with physical disabilities, yielding a comprehensive understanding of the underlying factors at play.

Conceptual Framework

A conceptual framework, in its descriptive capacity, utilizes images or diagrams to illustrate the interrelation of variables, particularly the independent and dependent variables (Orodho, 2009).

Independent Variable



Dependent Variable

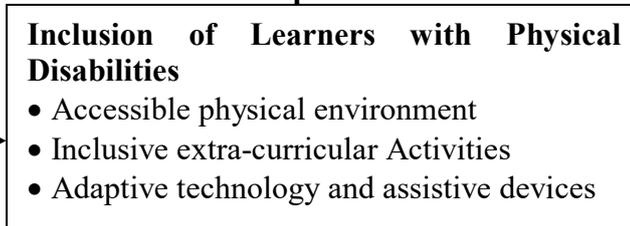


Figure 1: Conceptual Framework

Source: Researcher (2023)

RESEARCH METHODOLOGY

Research Methodology

This research utilized a mixed-methods approach to collect data, combining both qualitative and quantitative research methodologies. Qualitative data was obtained through interviews and focus groups, while quantitative data was acquired through the administration of questionnaires. This mixed-methods strategy aims to facilitate a thorough investigation into the influence of the learning environment on the inclusion of students with physical disabilities in public primary schools located in Kisii Central Subcounty, Kenya.

Research Design

This study was set to utilize a convergent research design, which involves the independent gathering and analysis of both quantitative and qualitative data.

Location of the Study

The study took place in Kisii Central Subcounty, situated in Kisii County, Kenya.

Target Population

The target group consisted of teachers, headteachers and learners with physical disabilities in public primary schools in Kisii Central Subcounty. The Sub County Education Office (2022) reports that there are precisely 92 learners with disabilities currently enrolled in regular public primary schools. Furthermore, there are 124 public primary schools, each with a designated head teacher, totaling 124 head teachers. The teaching staff comprises 1,949 educators, bringing the total number of individuals within the educational system to 2,165.

Sample Size and Sampling Procedures

In the present study, the methodology involves the utilization of a simple random sampling technique for the selection of learners with physical disabilities, while teachers and headteachers was chosen through a stratified random sampling approach. The stratification for teachers and headteachers was based on factors such as school type or location. This precise process involves dividing the respective populations into distinct strata and subsequently selecting representative samples from each stratum, ensuring a comprehensive and unbiased representation for the study.

It is crucial to emphasize that the research concentrated on learners with physical disabilities aged approximately 11 to 14 years, encompassing grades 5 to 7, selected purposefully for the investigation. The Krejcie and Morgan (1970) table was utilized by the investigator to establish the appropriate sample size for this study. From a population of 2165 individuals, a sample size of 327 respondents is derived. Each category of respondents is outlined in Table 1 below.

Table 1: Sampling Grid

Target group	Total population	Sample size
Headteachers	124	19
Teachers	1,949	294
Physically challenged learners	92	14
Total	2165	327

Source: Researcher (2023)

Data collection Instruments

Data collection process encompassed the utilization of various instruments, including interview schedules, questionnaires, observation schedules and focus group discussions, indicating the researcher's adoption of a diverse range of research tools.

The study utilized an interview schedule to conduct structured interviews with headteachers, acknowledged as dependable sources and subject matter experts, making substantial contributions to the research.

The questionnaires selected for this study was aimed to gather information from the teachers.

The researcher visited the selected schools to observe the authentic setting, aiming to collect data that the questionnaire's items may not capture. The observation checklist was structured to capture data on authentic behaviours and circumstances within the actual setting of sampled schools and data on aspects not easily captured by questionnaires, providing a more holistic view of the learning environment.

The focus group discussion schedule was designed to investigate different objective variables concerning learners aged around 11 to 14 years with physical disabilities, particularly those in grades 5 to 7.

Validity and Reliability of Research Instruments

For the validity of the research tools, adherence to the criteria outlined by Kothari (2004) was crucial. The effectiveness of these measuring tools was evaluated based on their ability to fulfill their intended purpose and accurately reflect the phenomena under investigation during data analysis.

The dependability of the research instruments was evaluated utilizing the test-retest approach. A selected group of respondents completed the same questionnaires twice over a two-week period to assess the consistency of their responses. The researcher compared the two sets of questionnaires to determine if the replies demonstrate consistency. The calculation of the correlation coefficient using Pearson's product correlation coefficient was employed for this purpose. As suggested by Gliem and Gliem (2003), a satisfactory alpha value is typically 0.70 or higher.

The researcher carried out a pilot study at Amariba Primary School in Kisii Central Sub-County and this school was not part of the final study. The selection of this school was based on its similarity to the intended population for the upcoming study.

Data Analysis Methods

Open-ended responses underwent content analysis coding before being presented in a descriptive narrative. Quantitative data analysis involved the use of descriptive statistics, encompassing frequencies, percentages and measures of central tendency, to address research questions. Data management and the generation of descriptive statistics was conducted using SPSS version 28. Furthermore, inferential statistics, specifically correlation and regression analyses, was applied to investigate potential relationships among variables. Thematic analysis on qualitative data was applied towards analysing the data collected through interview schedules, observation and focus group discussions.

Ethical Consideration

Respect for the dignity and cultural sensitivities of all participants, including learners with physical disabilities, was paramount. The researcher ensured that interactions are conducted with utmost sensitivity and awareness, taking into account individual preferences and comfort levels. Ethical conduct was upheld during interviews, focus group discussions and observations to create an environment where participants felt valued, heard and empowered. Stringent measures were implemented to safeguard the privacy and confidentiality of all participants. Personal identifiers were replaced with pseudonyms during data collection and analysis to ensure anonymity. All data, including interview transcripts, observation notes, and questionnaires, was stored securely with limited access granted only to authorized personnel.

RESEARCH FINDINGS AND DISCUSSIONS

Response Rate

The study sample size was 327 respondents and of these 314 responded which is equal to 96%. This means that 13 (4%) respondents did not participate in the study. This means that the response was really good at the rate of 96%. Which indicate that it was good.

Descriptive Findings

The current study examines the influence of physical facilities on the inclusion of learners with physical disabilities within a sample of 314 participants. Table 2 provides detailed descriptive statistics, including the minimum, maximum, mean, and standard deviation for various aspects of physical facility accessibility and inclusiveness. The accessibility of toilet for learners with physical disabilities has a mean score of 4.0605 and a standard deviation of 1.29862, indicating a relatively high level of perceived adequacy. In contrast, the design of walkways to accommodate wheelchair users and learners with mobility challenges has a lower mean score of 2.8599 and a standard deviation of 1.66128, suggesting that improvements are needed in this area. Play areas' suitability for safe and inclusive play for learners with physical disabilities is moderately perceived, with a mean score of 3.5159 and a standard deviation of 1.43709. The adequacy of signage indicating accessible routes and facilities is also moderate, with a mean score of 3.3535 and a standard deviation of 1.65736. Toilet facilities equipped with handrails and other assistive features have a mean score of 3.4204 and a standard deviation of 1.67533, indicating a moderate level of accessibility. The smoothness and slip-resistance of walkway surfaces are perceived to be relatively safe, with a mean score of 3.7866 and a standard deviation of 1.49194. Playground equipment designed to accommodate varying physical abilities scores a fairly high mean of 3.9713 and a standard deviation of 1.41505, reflecting a positive perception of inclusiveness in playground design. The provision of alternative pathways for learners with physical disabilities has a low mean score of 2.6369 and a standard deviation of 1.72059, highlighting the need for better accessibility. Proactive maintenance and repair of facilities to ensure inclusiveness have a moderate mean score of 3.6115 and a standard deviation of 1.40355. Seeking feedback from learners with physical disabilities and their parents/guardians about the usability of physical facilities scores the highest mean at 4.0924 and a standard deviation of 1.28187, indicating strong engagement and responsiveness. Overall, the study reveals varying levels of satisfaction with different aspects of physical facilities, with wide double doors that can open inwards and outwards and the toilets have enough width/ size to fit a wheelchair and to accommodate those using clutches. accessibility and feedback mechanisms being well-regarded, while walkway design and alternative pathways require significant improvement. This comprehensive analysis is critical for identifying areas where enhancements are needed to foster a more inclusive environment for learners with physical disabilities.

Table 2: Influence of physical facilities on inclusion of learners with physical disabilities

Statement	N	Min	Max	Mean	Std. Deviation
Toilet are built to accept for learners with physical disabilities	314	1.00	5.00	4.0605	1.29862
Walkways within the school premises are designed to accommodate wheelchair users and learners with mobility challenges	314	1.00	5.00	2.8599	1.66128
The play areas are appropriately levelled to facilitate safe and inclusive play for learners with physical disabilities.	314	1.00	5.00	3.5159	1.43709
Adequate signage is provided to indicate accessible routes and facilities for learners with physical disabilities.	314	1.00	5.00	3.3535	1.65736

Statement	N	Min	Max	Mean	Std. Deviation
The toilet facilities are equipped with wide double doors that can open inwards and outwards and the toilets have enough width/ size to fit a wheelchair and to accommodate those using clutches.	314	1.00	5.00	3.4204	1.67533
The walkways have a smooth and slip-resistant surface to ensure the safety of learners with physical disabilities.	314	1.00	5.00	3.7866	1.49194
The playground equipment is designed to accommodate learners with varying physical abilities.	314	1.00	5.00	3.9713	1.41505
The school provides alternative pathways for learners with physical disabilities to access different areas within the school	314	1.00	5.00	2.6369	1.72059
The school proactively maintains and repairs facilities doors, tapes tissue dispenser and flow to keep them inclusive and functional.	314	1.00	5.00	3.6115	1.40355
The school seeks feedback from learners with physical disabilities and their parents/guardians regarding the usability of physical facilities	314	1.00	5.00	4.0924	1.28187
Valid N (listwise)	314				

Source: Field Data (2024)

The study's qualitative data on the influence of physical facilities on the inclusion of learners with physical disabilities found that accessible infrastructure plays a crucial role in enhancing participation and independence. This was supported by a headteacher interviewee who stated:

"The installation of ramps and accessible bathrooms in our school has significantly enhanced the mobility and inclusion of our physically disabled learners. One major challenge we face is the lack of adequate funding to upgrade all our facilities to be accessible. This affects the overall inclusion of learners with physical disabilities. We have seen a positive impact on attendance and participation from our physically challenged learners since improving our physical facilities."

Headteachers.

The learners. also shared similar sentiments saying:

"Having ramps and accessible pathways makes it much easier for them to get to my classes independently. We feel more included and confident because I can participate in all school activities without needing extra help from others. It allows us to move around the school freely, just like my peers and this has greatly improved our overall school experience. The accessibility features truly make a significant difference in our daily life at school." **learners.**

Inferential Analysis

Correlations

Table 3 illustrates the correlations among physical facilities and classroom inclusive practices within the educational context examined. Classroom inclusive practices show positive correlations with physical facilities ($r = 0.480$, $p < 0.01$). This implies that schools equipped with better physical environments are more conducive to implementing inclusive educational practices that cater to diverse student needs.

Table 3: Correlations

		Physical facilities	Classroom inclusive practices
Physical facilities	Pearson Correlation	1	.480**
	Sig. (2-tailed)		.000
	N	314	314
Classroom inclusive practices	Pearson Correlation	.480**	1
	Sig. (2-tailed)	.000	.000
	N	314	314

Source: Field Data (2024)

Regression Analysis

Model Summary

Table 4 provides a model summary for a regression analysis, outlining key statistics that help in assessing the model's performance. The correlation coefficient (R) is .480, indicating a moderate positive correlation between the independent variable and the dependent variable. The R Square value of .231 suggests that approximately 23.1% of the variance in the dependent variable is explained by the independent variable in the model. The Adjusted R Square, which accounts for the number of predictors in the model, is slightly lower at .227, indicating a modest adjustment for potential overfitting.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.48 ^a	.231	.227	.30642

a. Predictors: (Constant), Physical facilities

ANOVA

Table 5 presents the results of an ANOVA analysis used to assess the effectiveness of physical facilities in influencing classroom inclusive practices. The regression model demonstrates significant explanatory power, as indicated by a high F-statistic of 35.930 with a corresponding p-value (Sig.) of .000, suggesting strong statistical significance. This implies that physical facilities has a substantial impact on classroom inclusive practices.

Table 1: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4603.766	3	1534.589	35.930	.000 ^b
	Residual	13240.416	310	42.711		
	Total	17844.182	313			

a. Dependent Variable: classroom inclusive practices

b. Predictors: (Constant), physical facilities

Source: Field Data (2024)

Coefficients

Table 6 presents the coefficients from a regression analysis aimed at understanding the impact of physical facilities on the dependent variable- classroom inclusive practices. The intercept (Constant) of 10.113 represents the estimated value of the dependent variable when all predictors are zero.

The coefficients provide insights into the strength and direction of these predictors. Physical facilities show a substantial influence with a coefficient of .385 (Beta = .393), indicating that for every unit increase in physical facilities, the dependent variable is predicted to increase by .393 units. This relationship is statistically significant, as evidenced by the high t-value of 6.824 ($p < .001$), underscoring the importance of adequate physical infrastructure in fostering inclusive educational environments.

Table 6 underscores the critical importance of physical facilities and learning resources in promoting inclusive educational environments. These findings suggest that investing in adequate infrastructure and providing accessible learning materials are pivotal in enhancing educational outcomes and inclusivity for students with diverse needs. These insights can inform educational policies and practices aimed at improving inclusive education strategies within schools and institutions.

Table 2: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.113	2.061		4.906	.000
	physical facilities	.385	.056	.393	6.824	.000

Source: Field Data (2024)

Discussions of findings

The study findings regarding varying perceptions of physical disabilities align with UNESCO's (2004) discovery that some school administrators view students with physical disabilities as academically challenged and resource-intensive. However, the study indicates that perceptions may not always align with the capabilities of these students, who often possess average or higher intelligence levels (Panda, 2019).

The challenges identified in the study related to the design of walkways and alternative pathways resonate with UNESCO (2018) advocacy for inclusive environments equipped with essential infrastructure such as ramps and well-organized indoor classrooms.

The comprehensive measures outlined in the study, such as the installation of inclusive restrooms and enhancements in facility accessibility, closely align with the Ministry of Education (2019) recommendations for creating accessible school environments that emphasize the importance of facilities like ramps, adequately lit and ventilated classrooms and accommodations for wheelchair users. The findings reinforce the necessity of these measures to ensure a conducive learning environment that promotes independence and inclusivity for all students.

Kadima's (2019) findings of inadequate physical facilities in Kenyan schools, including overcrowded classrooms and inaccessible toilets, resonate with the study observations. The study contributes to the literature by reaffirming the persistent barriers students with physical disabilities encounter in navigating their school environments independently, calling for continued improvements in infrastructure and support services.

Study Conclusions

The study's objective focused on assessing the influence of physical facilities, learning resources, and teaching methods on inclusive education practices for students with physical disabilities. The study found that accessible physical facilities such as toilets, walkways, and playgrounds significantly enhance inclusivity by providing safe and accessible environments. Accessible learning resources, including adaptable textbooks and specialized tools, were identified as crucial for promoting engagement and independence among students with physical disabilities. Effective teaching methods, such as individualized instruction and peer teaching, were also noted for their role in fostering inclusive classroom environments by supporting personalized learning experiences and social interaction.

The third objective focused on evaluating the overall impact and effectiveness of inclusive education practices. Statistical analyses, including ANOVA and regression models, underscored the significant predictive value of physical facilities and learning resources in fostering inclusive classroom environments. These findings emphasize the importance of investing in accessible infrastructure and supportive educational practices to enhance educational experiences and outcomes for students with physical disabilities.

Objective four aimed to evaluate the statistical analyses conducted in the study and their implications for enhancing inclusive education practices. The analyses confirmed that physical facilities, accessible learning resources, and effective teaching strategies play integral roles in promoting inclusive education. The variability in the effectiveness of different teaching methods suggests the need for personalized approaches based on individual student needs and preferences. Overall, the statistical findings underscored the critical role of inclusive physical facilities, accessible learning resources, and effective teaching methodologies in creating supportive and equitable educational environments for students with physical disabilities.

Recommendation to the study

Policymakers should develop comprehensive guidelines for implementing inclusive education practices based on statistical insights. These guidelines should be created in collaboration with educators, administrators, and disability specialists to ensure they are practical and effective. Additionally, establishing monitoring and evaluation frameworks is crucial to assess the long-term impact of these initiatives on academic outcomes and student well-being.

Educational authorities and researchers should promote the dissemination of research findings through professional development workshops, conferences, and publications. This will help integrate evidence-based practices into broader educational policies and practices, thereby enhancing the effectiveness of inclusive education programs.

School administrators should enhance accessibility audits and maintenance protocols for physical facilities. Ensuring continuous compliance with accessibility standards is essential for creating a more inclusive environment for learners with physical disabilities.

Future research could investigate deeper into causal relationships and explore interventions that effectively leverage these factors to promote inclusive education and improve learning outcomes for learners with physical disabilities across diverse educational settings.

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