



Environmental Determinants of Educational Transition: Examining the Progression of Pupils with Physical Impairments from Integrated Primary to Junior Secondary Schools in Rachuonyo Sub-County, Kenya

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Abstract: *This study examined the environmental determinants influencing the transition of pupils with physical impairments from integrated public primary schools to junior secondary schools in Rachuonyo Sub-County, Homabay County, Kenya. Despite national policies promoting inclusive education and the 100% transition policy, learners with physical impairments continue to experience barriers that limit their progression to the next level of education. The study aimed to investigate environmental factors that influence the transition of these learners within the inclusive education framework. A descriptive research design was adopted. The study was conducted in 32 integrated public primary and junior secondary schools that enroll learners with physical impairments. The target population comprised learners with physical impairments in Grades 6, 7, and 8, teachers, headteachers, and the county officer in charge of special needs education. Purposive sampling was used to select participants with direct experience in inclusive education and transition processes. The final sample consisted of 141 respondents, including 57 learners with physical impairments, 53 teachers, 30 headteachers, and one county special needs education officer. Data were collected using questionnaires for learners and semi-structured interviews for teachers, headteachers, and the county officer. The findings revealed that although many schools had accessibility features such as ramps, wide doorways, and accessible restrooms, several barriers still existed, including uneven terrain, narrow corridors, inadequate ramps, and outdated infrastructure. The study concludes that improving school infrastructure and accessibility is essential for promoting equitable educational transition for learners with physical impairments.*

Keywords: *Environmental Determinants, Educational transition, Physical impairments, Inclusive education, School accessibility, Junior secondary schools*

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1. Introduction

Any act of experience that shapes a person's mind, character, or physical capabilities is referred to as education. Society shares information, skills, and values

from one generation to the next through the process of education. According to Hueblar (2016), the percentage of students moving on to the next educational level is the education transition rate. It is calculated by dividing the proportion of students enrolling in secondary schools for

the following year by the total number of pupils who completed primary school in the previous year. Transition is a normal part of life that everyone goes through at some point, such as when a pupil moves from pre-school to primary school, primary school to secondary school, and so on.

According to a 2015 estimate from the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute of Statistics (UIS), 85% of primary school pupils globally progress on to secondary education. Since education is a requirement for development, the majority of the industrialized worlds including Europe, Asia and America have continued to make significant investments in this area. Except for South and West Asian nations like Bangladesh, India, and Pakistan, which have Net Enrollment Ratios (NER) ranging from 20% to 24%, all developed nations, according to a 2019 UNESCO assessment, have transition rates from elementary to secondary education that are above 90%. In barely four decades, the Republic of Korea, one of the world's poorest nations in the 1950s, was able to accomplish nearly 100% secondary education transition by the end 1980s.

Education is a fundamental right that should not be taken away and is essential to the fulfilment of all other rights (Universal Declaration of Human Rights, UN 1948). Several international, regional, and national laws and policies also reaffirm this. The No Child Left Behind Act (NCLB) of 2001 marked a turning point in educational reform in the United States of America (USA). Its goal was to raise the quality of public elementary and secondary schools. The statute required schools to account for the learning and performance of their students. Prior to NCLB, many schools did not pay attention to how disadvantaged pupils were doing. Special education students were frequently excluded from regular education. The purpose of NCLB was to increase educational opportunities for pupils, with a particular emphasis on low-income, minority and students receiving special education assistance as well as those who speak and comprehend little to no English at all. The law mandated that schools give priority to underprivileged pupils. The law largely altered the mindset of students with physical impairments, which finally resulted in a decrease in the number of dropouts, an increase in graduation rates, and the provision of efficient transitional measures.

In Sub-Saharan Africa, primary school exclusion rate is high at 21% where primary school children are being denied access to education. This number of children continues to be underrepresented in enrollments to secondary education. Tanzania has the lowest transition rate (20%). This is due to the fact that some families cannot afford the cost lunch and boarding fees and that girls face greater obstacles to continuing their education than boys (Fute 2019).

Achieving a life prosperity and dignity for all Kenyans is one of the government's top aims for the 21st century (Sustainable Development Goals, 2017; United Nations, 2020; and Kenya Vision, 2030). Since independence, Kenyan education policy documents such as the Kenya Education Commission (GOK, 1964), Sessional Papers No. 10 of 1965, No. 6 of 1988, and No. 1 of 2005, as well as both of the National Development Plans for 2002-2008 and 2008-2012, have emphasized the importance of education in achieving the SDGs (GoK, 2012). These policy documents state that education is not only a fundamental right of children but also a key component of the nation's socioeconomic development. Gross enrolment rate (GER) reached 104% in 2018 after the Kenyan government introduced free primary education in 2003. At the same time span, net enrolment rate (NER) grew to 92.4%.

Ouma, Amimo, and Ojwan'g (2024) found a 99.8% transition rate in Siaya County. In comparison, transition rates in Nyandarua, Kisii, and Wajir counties in Kenya range between 95% and 99% of the national average, while Nyamira, Mandera, and Bomet counties have a transition rate of 102%. Additionally, Kisumu County records a transition rate of 82%, whereas Homabay, Kirinyaga, Migori, and Kiambu counties stand at 96%. According to table 1 below, 5% of secondary school students in Kenya are impaired. This may be sign that few students with impairments are transitioning to secondary schools. Given their proportion in the general population, the number of students with impairments and special needs completing the primary school education cycle in Kenya is insignificant. In 2018, there were 2,495 pupils with impairments out of 1,052,364 pupils that took the Kenya Certificate of Primary Examination (MoE, 2018). The percentage of students with physical impairments transitioning from primary to secondary education climbed from 81.9% in 2015 to 88% in January of 2018. All students are required to transition from elementary to secondary education as a result of the transition policy being in place.

The transition of pupils with special needs from primary to secondary school is a difficulty for the Republic of Kenya in its efforts to provide education for all, irrespective of ethnicity, gender, family history, or physical limitations (UNESCO, 2008). With the policy on transition in place, the rate of transition from primary to junior secondary education is expected to improve, necessitating the study to establish the determinants of transition rates for pupils with physical impairment in special public primary schools to junior secondary schools in Rachuonyo Sub- County, Kenya.

1.1 Statement of the Problem

The transition from Integrated public primary to public junior secondary schools is a major life event that can have an impact on one's life's quality. Learners with physical impairments are more likely than their non-imp The transition rate from primary to secondary schools is 98%, based on more recent statistics from Kenya (Amunga et al., 2020). Furthermore, records from the County Education office demonstrate that Homa-bay County's transition rate is higher than 100% without mentioning the physically impaired pupils (Aute et al., 2020). In Rachuonyo Sub-County, there exists a critical issue concerning the transition rate of pupils with physical impairments from integrated public primary schools to secondary schools (Aute et al., 2020). Despite the presence of policies and programs aimed at promoting inclusive education, a significant disparity persists, limiting these pupils' access to secondary education. Aired colleagues to drop out if their educational requirements are not met (Trainor et al., 2019). Research indicates that determinants such as inadequate infrastructure, limited teacher training in special needs education, societal attitudes, and insufficient parental support contribute to this challenge. However, there is a lack of comprehensive studies investigating the specific barriers in this sub-county and proposing actionable solutions to improve transition rates. This study seeks to bridge this gap by examining the environmental determinants hindering the transition of pupils with physical impairments.

1.2 Objective

To investigate the environmental determinants that determine transition of pupils with physical impairment from integrated public primary to junior secondary schools in Rachuonyo Sub- County, Kenya

2. Literature Review

2.1 Environmental Determinants and the Transition of Pupils with Physical Impairments

According to a National Council on Impairment (2002), in order to create a learning environment for individuals with impairment, buildings and facilities must be designed, built, or modified using government funding in order to comply with government physical accessibility standards. Examples of these standards include designated parking spaces and ample, clearly marked passenger-loading zones for vehicles transporting disabled students. Additionally, buildings with stairwells feature lifts, ramps or lifts; automated door openers; and lowered counters for non-ambulatory individuals. Entrances are shielded from the

weather by a canopy or roof overhang. Entrance, hallway, lavatory, waiting area and exam room barriers are all removed. The rooms should be big enough to fit those using wheelchairs and other assistive technology. The minimum width of a corridor for wheelchair accessibility is 36 inches (Curriculum Registration guidelines ,2021).

For many low- and middle-income countries, it is still difficult to address the needs of individual students with special educational needs in ordinary classroom settings. It is not shocking that, on average, physically impaired pupils' express concerns about physical barriers in the classroom such as inaccessible classrooms, such as those without ramps, elevators, or wide doorways for pupils with mobility impairments, insufficient seating and workspace arrangements that accommodate wheelchairs and assistive devices that non-physically impaired do not frequently encounter. This may cause extra stress for pupils who are impaired that is not encountered by non-physically impaired pupils.

For the purpose of educating children with impairments, physical access to school buildings is a must (Stubbs, 2008). The number of pupils with physical impairments enrolled in a school is limited by an environment that is inaccessible to people who use wheelchairs or other mobility aids and require elevators, ramps, paved pathways, and lifts to enter and exit buildings. Even if it is possible to get to the school, there can be difficulties with the stairs, small entryway, uncomfortable seats, or inaccessible restrooms (Enabling Education Network, 2003). Accessibility might include more than just hallways, stairs, and ramps; it can also include playgrounds, paved walking paths, and door handles. For example, a student with cerebral palsy might not be able to grasp and turn a conventional doorknob. A student's devices for assistive technology and other equipment needed to suit their specific needs must fit in the classroom (EENET, 2003).

Learners with physical impairments frequently experience chronic physical health issues such as cerebral palsy, Spina Bifida, muscular dystrophy and epilepsy that limit their physical mobility and also challenging in doing daily tasks. Pupils with neurological disorders and physical limitations may also have a range of perceptual challenges. While some pupils can see or hear but struggle to digest the information they are given, others have no trouble at all obtaining information through their senses. This can lead to problems with reading and writing, like finding the right spot on the page or turning the page from left to right. Pupils with physical impairments may experience difficulties with their ability to move, hold or manipulate objects, eat, communicate, see, perform reflex actions, and/or exhibit automatic motility (such as the sphincter and intestinal muscles).

Further, pupils who have physical impairments, navigating an inaccessible post-primary setting can be particularly challenging. When this change is expected, they may need to be ready in advance. To assist learners in adjusting to their new surroundings, Schlossberg and Goodman (2005) stress the importance of identifying the difficulties they may face. Students who lack the ability to cope with transitions struggle to adapt to their new environment. Communication and transportation are listed as environmental determinants by UNESCO (2010), who points out that people with physical impairments may have trouble getting to school if, for instance, the roads and bridges are inaccessible to wheelchairs and the distances are long.

A research conducted by the enabling education network in 2000, it was found that many parents and careers (88.5%) of physically impaired children who did not attend the school stated that the roads were unfit for their children to walk on. Similarly, research posits that one of the learning obstacles for students with impairments that might lead to dropout or poor transition is distance, children who have mobility issues might stop attending school because of the distance between their homes and the school (Thurlow et al., 2020).

Additionally, the classroom space must be physically accessible to students who use wheelchairs, walkers, and other assistive technologies. According to Bronfenbrenner (2019), a child is an organism that adapts to the processes that each environment gives. Some people view adaptation as a natural aspect of life and have no trouble accepting the idea of change. Others experience a dread of change that inhibits them from continuing their natural development and learning. Successful adaptation results from the child's background, comprehension of events connected to emotional reactions to situations, and natural legacies offered by those experiences (Bronfenbrenner & Morris, 2006). For children, transition means change. Such transition elicits strong emotions that, for some youngsters, can support and lead them while creating insurmountable barriers that impede their learning. Providing equal educational opportunities throughout the school system is continually hampered by the difficulty in obtaining the necessary equipment for individual students, such as walking platforms and modified mobility devices (Dalton, 2005).

Griful-Freixenet, et al (2017) did a study on perceived barriers and opportunities of the universal design for learning framework among higher education students with impairments in Belgium. They found out that there are physical barriers to learning that are only felt by people with impairments and are not easily seen by the general public. However, little research has been conducted in Kenya to demonstrate how this can impact the rate of transition for children with physical impairment. The goal

of the current study is to investigate environmental barriers that affect the transition rate of pupils with physical impairments (Sánchez et al., 2019).

While there is evidence that teachers are willing to include physically impaired students in their classes, there are still significant concerns about problems with classroom management and perceived absence of resources and support (Silverman, 2017). This can promote positive teacher-student interactions, assists with smooth transitions, and prevents disruptive behavior. Students will be allowed to learn without added distractions or situations that would otherwise derail their concentration.

3. Methodology

This study adopted a descriptive research design to examine the environmental determinants influencing the transition of pupils with physical impairments from integrated public primary schools to junior secondary schools in Rachuonyo Sub-County, Homabay County, Kenya. The study was conducted in 32 integrated public primary and junior secondary schools where pupils with physical impairments are enrolled. The target population comprised learners with physical impairments in Grades 6, 7, and 8, teachers, headteachers, and the county officer in charge of special needs education, since these groups possess relevant knowledge regarding the environmental conditions affecting learners' transition to junior secondary education. A purposive sampling technique was used to select participants who had direct experience with inclusive education and transition processes. The final sample consisted of 57 learners with physical impairments, 53 teachers, 30 headteachers, and one county special needs education officer, giving a total of 141 respondents.

Data were collected using student questionnaires and semi-structured interview schedules for teachers, headteachers, and the county special needs education officer. The questionnaire contained two sections: demographic information and items measuring environmental determinants such as school infrastructure, accessibility, availability of assistive facilities, and learning environment, using a four-point Likert scale ranging from strongly disagree to strongly agree. The interview schedules provided qualitative insights into stakeholders' experiences and perceptions regarding environmental factors affecting the transition of learners with physical impairments. The validity of the instruments was ensured through expert review by supervisors, while reliability was established through a pilot study conducted in four schools in Kasipul Kabondo Sub-County, yielding a Cronbach's alpha coefficient of 0.865, indicating high internal consistency. Data collection followed ethical and administrative procedures, including approval from the University of Eastern Africa Baraton Research Ethics

Committee, authorization from NACOSTI, and permission from relevant county and school authorities. Quantitative data were analyzed using descriptive statistics, specifically means and standard deviations, while qualitative responses were analyzed using thematic analysis. Ethical principles such as informed consent, voluntary participation, confidentiality, and anonymity of respondents were strictly observed throughout the study.

4. Results and Discussion

This research question sought to explore the environmental determinants that influence transition of pupils with physical impairment from integrated public primary to

junior secondary schools. Respondents were asked to indicate their level of agreement on a scale of 1 to 4 with 1 representing strongly disagree, 2 representing disagree, 3 representing agree and 4 representing strongly agree.

Interpretation Scale

1.00-1.49= Strongly disagree

1.50-2.49= Disagree

2.50-3.49= Agree

3.50-4.00= Strongly agree

Table 1: Environmental Determinants

Descriptive Statistics			
	N	Mean	Std. Deviation
The buildings in my school have wide door ways for pupils with wheelchairs.	47	3.1277	.67942
There is enough space for the free movement with wheel chairs in the classroom.	47	3.0851	.68619
The buildings in my school have ramps.	47	3.3191	.62923
Road to my school is accessible for students with wheelchairs.	47	3.1915	.57628
My school has walking platforms	47	3.2128	.58741
My school has accessible restrooms for pupils with wheelchairs.	47	3.1489	.46526
Average Mean	47	3.1808	.60396

From table 1, the students' perceptions regarding accessibility features at their school were generally positive, as reflected by the means and standard deviations of their responses. Specifically, students agreed that the buildings have wide doorways accommodating pupils with wheelchairs ($M = 3.128$, $SD = 0.679$), indicating a consistent presence of this crucial accessibility feature, though with minimal variability in responses. Additionally, students affirmed there is ample space for wheelchair movement within classrooms ($M = 3.0805$, $SD = 0.686$), suggesting a general, but not universal, satisfaction with the layout of classroom spaces. The presence of ramps was also positively noted ($M = 3.319$, $SD = 0.629$), which is essential for wheelchair access, showing a moderate level of agreement and less variation compared to other features.

Students also recognized accessible routes to the school ($M = 3.192$, $SD = 0.576$), and the availability of walking platforms on campus ($M = 3.213$, $SD = 0.587$), both

contributing to the overall accessibility. Furthermore, they affirmed the presence of accessible restrooms for wheelchair users ($M = 3.181$, $SD = 0.604$), which is a critical aspect of school infrastructure for students with physical impairments. The overall average of the responses ($M = 3.181$, $SD = 0.604$) indicates a moderately positive perception of accessibility at the school. While the mean scores suggest that students generally feel the school is equipped with necessary accessibility features, the standard deviations reveal there is some variation in their experiences, highlighting areas where improvements could still be made to ensure a consistently accessible environment for all students. In addition, the researcher further, sought the teachers' opinion on the environmental accessibility of their respective schools from students with physical impairments. The responses from the interviews we summarized as shown in figure 2.

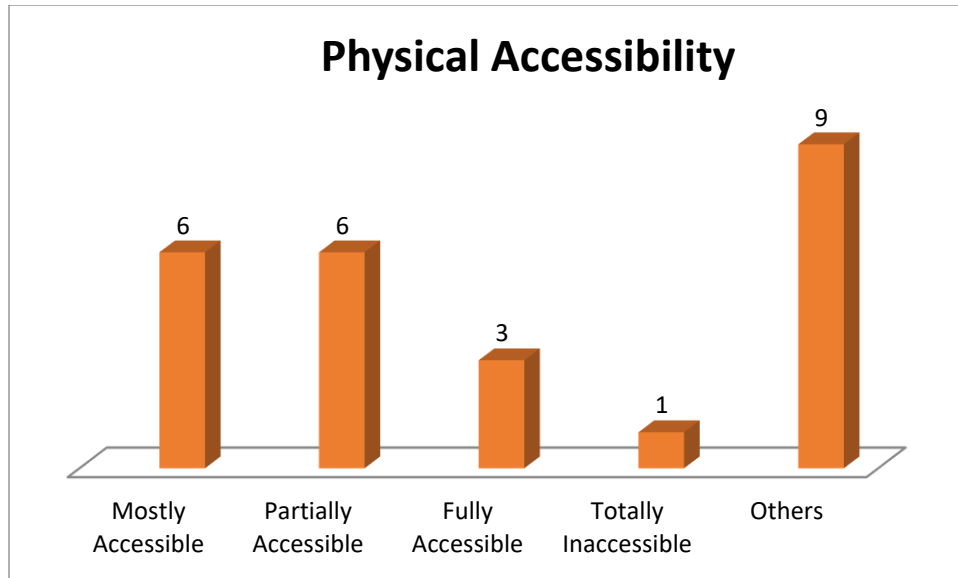


Figure 1: Summary of Teachers' Interviews on Physical Accessibility

From figure 1, in total, 25 teachers were interviewed regarding the physical accessibility of schools. A majority of 15 teachers confirmed that the schools were accessible for students with physical impairments. Nine teachers expressed some reservations about the accessibility, suggesting areas that might need improvement. Interestingly, one teacher reported that the school was

perceived as completely inaccessible for students with physical impairments.

The teachers continued by pinpointing the barriers hindering the accessibility of students with physical impairments within their respective schools as summarized in figure 2.

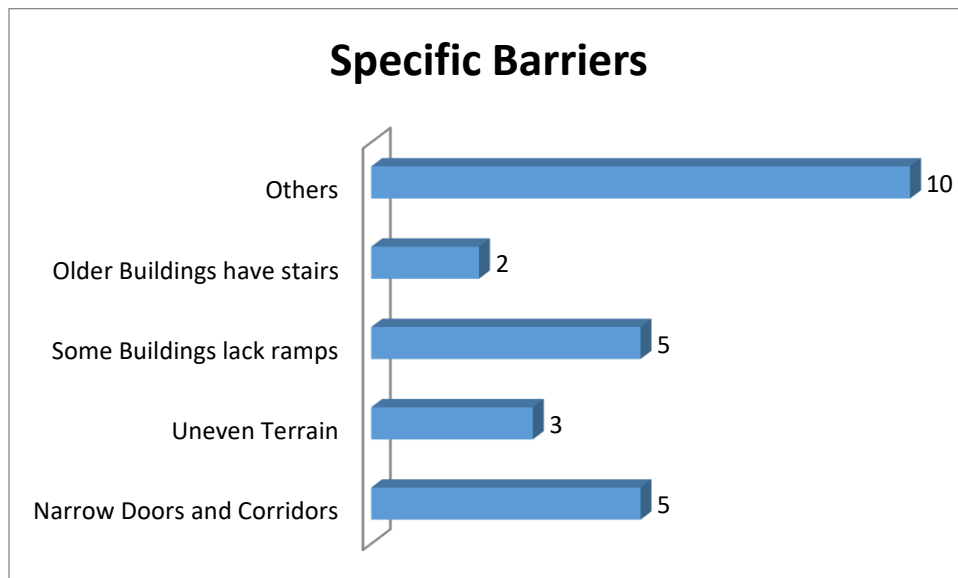


Figure 2: Specific Barriers Hindering Accessibility of Students with Physical Impairment by Teachers

From figure 2, based on the responses from the majority of respondents (15 individuals), the barriers they highlighted

primarily related to the physical infrastructure of the school. Specifically, they mentioned narrow doors and

corridors, uneven terrain across the campus, certain buildings lacking ramps entirely, and older buildings with ramps that might not meet modern accessibility standards. In contrast, the remaining ten respondents did not specify

any particular barriers in their responses. Similarly, the researcher sought the head teachers' and officer in-charge of physical disability on the same and their responses were further summarized as shown in figure 3.

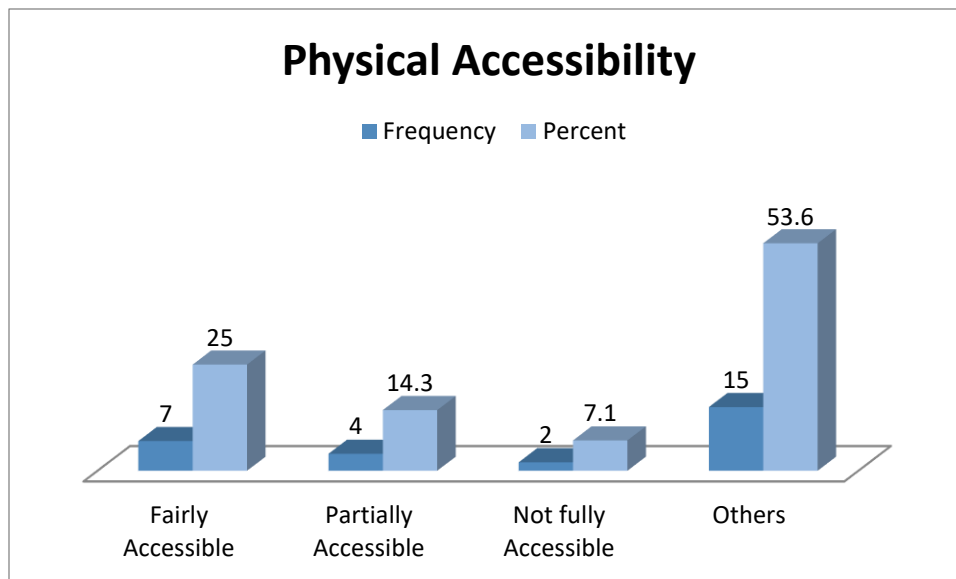


Figure 3: Summary of headteachers' and Officer In-charge of Impairments Interviews on Physical Accessibility

From figure 3, headteachers provided varying perspectives on school accessibility. A minority, representing 39.3%, indicated that their schools were perceived as fairly and partially accessible. However, a majority of 53.6% expressed reservations about the accessibility of their schools, highlighting areas needing improvement. Additionally, 7.1% of headteachers noted that their institutions were not fully accessible, which they believed

contributed to the lower enrollment of students in their schools. These insights suggest a need for focused efforts to enhance accessibility measures and address barriers to ensure inclusive educational environments for all students.

Similarly, when headteachers were asked about the barriers, the researcher summarized their responses, as illustrated in Figure 4.

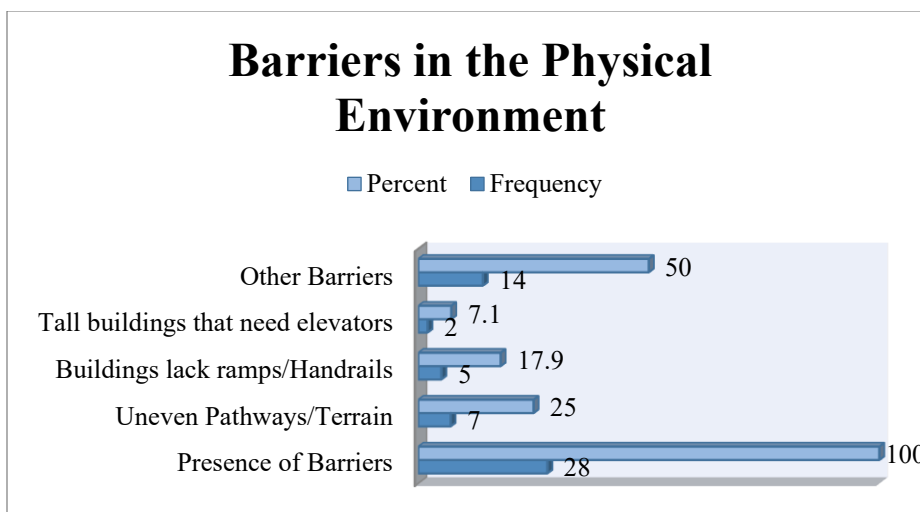


Figure 4: Specific Barriers Hindering Accessibility of Pupils with Physical Impairment by Headteachers

From figure 4, all headteachers interviewed unanimously acknowledged the presence of barriers within their schools. Among these, 7(25%) specifically identified uneven pathways or terrain as significant obstacles. Approximately 17.9% noted issues related to buildings lacking ramps or handrails, while 7.1% highlighted challenges posed by tall buildings requiring elevators for accessibility. The remaining 14(50%) of respondents cited various other barriers, which included social stigma, transportation difficulties, and insufficient policy support. This diversity of identified barriers explains the diverse nature of accessibility challenges faced by pupils with physical impairments across educational environments in Rachuonyo Sub-County.

5. Conclusion and Recommendations

5.1 Conclusion

The students generally reported positive experiences regarding the accessibility of school buildings, including the presence of wide doorways, ramps, accessible restrooms, and ample space for wheelchair movement. The majority of teachers and headteachers pointed out barriers such as narrow doors, uneven terrain, lack of ramps, and old buildings not meeting modern standards. Headteachers particularly noted these issues as contributing to lower enrollment rates of students with physical impairments. The findings indicated the need for ongoing assessments and enhancements in school infrastructure to create more inclusive educational environments, ensuring that all students, regardless of physical impairments, can transition smoothly from primary to secondary education. Significant challenges impact transition rates from primary to secondary education, including inadequate resources, stigma, and accessibility barriers. While the provision of assistive devices and learning materials is generally satisfactory, there remains a critical need for more resources, trained personnel, and infrastructural improvements to ensure comprehensive accessibility.

5.2 Recommendations

Schools should allocate more resources towards acquiring additional assistive devices, learning materials, and specialized equipment. Infrastructural improvements, such as building ramps, widening doorways, and ensuring accessible restrooms, should be prioritized to remove physical barriers that hinder the transition of pupils with physical impairments.

References

Amunga, J., Wawire, V., & Mwakubo, S. (2020). Factors influencing transition from primary to secondary

schools in Kenya. *International Journal of Educational Development*, 74, 102–112.

Aute, J., Otieno, K., & Onyango, P. (2020). Transition challenges of learners with disabilities in secondary education in Homa-Bay County, Kenya. *African Journal of Inclusive Education*, 5(2), 44–58.

Bronfenbrenner, U. (2019). *The ecology of human development: Experiments by nature and design*. Harvard University Press.

Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology* (6th ed., pp. 793–828). Wiley.

Dalton, E. M. (2005). Beyond universal design: Guidelines for accessible online course design. *Journal of Postsecondary Education and Disability*, 18(2), 135–148.

Enabling Education Network (EENET). (2003). *Inclusive education: Making it happen*. EENET.

Fute, A. (2019). Educational access and transition challenges in Sub-Saharan Africa. *International Journal of Educational Policy Research*, 6(3), 45–56.

Government of Kenya. (1964). *Kenya Education Commission report (Ominde Report)*. Government Printer.

Government of Kenya. (1965). *Sessional Paper No. 10 of 1965 on African socialism and its application to planning in Kenya*. Government Printer.

Government of Kenya. (1988). *Sessional Paper No. 6 of 1988 on education and manpower training for the next decade and beyond*. Government Printer.

Government of Kenya. (2005). *Sessional Paper No. 1 of 2005 on a policy framework for education, training and research*. Government Printer.

Government of Kenya. (2012). *Education sector report*. Ministry of Education.

Griful-Freixenet, J., Struyven, K., Verstichele, M., & Andries, C. (2017). Higher education students

- with disabilities speaking out: Perceived barriers and opportunities of the universal design for learning framework. *Disability & Society*, 32(10), 1627–1649.
- Huebler, F. (2016). *Educational transition rates and participation in secondary education*. UNESCO Institute for Statistics.
- Ministry of Education. (2018). *Kenya Certificate of Primary Education (KCPE) examination report*. Kenya National Examinations Council.
- Sánchez, J., Rodríguez, M., & García, A. (2019). Barriers affecting educational participation of students with disabilities in inclusive schools. *International Journal of Inclusive Education*, 23(5), 550–565.
- Schlossberg, N. K., & Goodman, J. (2005). *Counseling adults in transition: Linking practice with theory* (3rd ed.). Springer.
- Silverman, J. C. (2017). Teachers' attitudes and preparedness for inclusive education. *International Journal of Inclusive Education*, 21(7), 703–718.
- Stubbs, S. (2008). *Inclusive education: Where there are few resources*. Atlas Alliance.
- Thurlow, M., Lazarus, S., & Christensen, L. (2020). *Students with disabilities in educational accountability systems*. University of Minnesota.
- Trainor, A. A., Morningstar, M. E., & Murray, A. (2019). Transition planning and post-school outcomes for students with disabilities. *Career Development and Transition for Exceptional Individuals*, 42(3), 131–142.
- United Nations. (1948). *Universal declaration of human rights*. <https://www.un.org>
- United Nations. (2020). *The sustainable development goals report*. United Nations.
- United Nations Educational, Scientific and Cultural Organization. (2008). *Education for all global monitoring report*. UNESCO.
- United Nations Educational, Scientific and Cultural Organization. (2010). *Reaching the marginalized: Education for all global monitoring report*. UNESCO.