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Assessment Of Outdoor Preparedness For Inclusion Of Pupils With Physical Challenges Within Inclusive Public Primary Schools In Bungoma County, Kenya

Hesborn M. Chonge, Beth N. Wambugu, Esther N. Kiaritha
MOI University, Kenya

ABSTRACT

The practice of special education in Kenya began from an inclusion education premise and the 2009 National Policy on Education makes inclusive education the norm rather than the exemption. The focus of inclusive education is to remove barriers within the education system that bars pupils with challenges from accessing education in regular schools just like pupils without challenges. However, as much as there is a move toward inclusion of pupils with physical challenges in regular schools, the question is whether inclusive schools' adaptations are theoretical or practicable for a pupil with physical challenges to feel accommodated. The specific needs of pupils with physical challenges bring into focus the need of modifying the school facilities to enhance learning activities and counteract challenges brought about due to the challenges. This paper therefore aimed at assessing how well outdoor adaptations have been put in place to accommodate pupils with physical disability. The study utilized mixed method research approach, where both phenomenology and descriptive survey research designs were made use of. The findings indicate that there are inadequate outdoor adaptations for inclusion of pupils with physical challenges.

Key Words: Inclusion, Preparedness, Outdoor Adaptations

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INTRODUCTION

Inclusion refers to a philosophy which focuses on the process of adjusting the school so that all the pupils with physical challenges can have the opportunity to interact, play, learn, work and experience the feeling of belonging and experiment to develop in accordance with their potentials and difficulties (National Special Needs Education Policy Framework, 2009). With inclusion, schools ought to put measures in place to adapt to the needs of the pupils. This paper assumed that there have been shifts in terms of what is required to offer full inclusion over years and therefore inclusive schools must adhere to the requirements to enhance inclusiveness.

Policies such as the Salamanca statement (1994) advocated that regular schools with inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all. As the government of Kenya is trying to implement this practice, an inclusive school for the pupils with physical challenges obviously need adaptations. Therefore the study intended to assess the outdoor adaptations that have been put in place in order to foster full inclusion.

Johnsons (2008) defines adaptations as the process of modifying facilities in the regular public primary schools so that the schools can accommodate pupils with physical challenges. These adaptations include modifications put in place outside the classroom but in the school compound to help pupils with physical challenges access all areas and participate fully in the school activities. The researcher referred to these adaptations as outdoor adaptations.

However, issues arise in terms of how well prepared the inclusive schools are in order to accommodate pupils with physical challenges hence pointing out to the main research gap on assessment of the outdoor preparedness put in place to foster full inclusion in inclusive public primary schools in Bungoma County. Hence, the following objective guided this paper.

Study Objective

To assess outdoor adaptations in place for inclusion of pupils with physical challenges in inclusive public primary schools in Bungoma County.

RESEARCH METHODS

In view of the above objective, this study employed mixed method approach which combines both qualitative and quantitative approaches. According to Kombo and Tromp (2006), qualitative and quantitative approaches to research are complementary and where appropriate, they should be combined to maximize the strengths and minimize the limitations of each. Therefore, the researcher used this approach in order to give full, rich and deep description as possible in order to bring out the true picture of the outdoor adaptations put in place.

The target population comprised of four 4 registered inclusive primary schools offering inclusion for the pupils with physical challenges, 354 pupils with physical challenges, 68 teachers and 4 head teachers. The researcher purposively selected all the 4 inclusive schools catering for pupil with physical challenges which. Although the schools were the main unit of analysis, the opinions of the pupils and teachers were used by the researcher to build on the data collected through observations made. Hence out of the population, the researcher purposively sampled 138 pupils. Using the census method, all the 68 teachers and 4 head teachers were selected.

The methods of data collection employed were questionnaires, interviews and observation schedules. Teachers and pupils with physical challenges responded to the questionnaires items while the head teachers were interviewed. The researcher also observed the various items under outdoor adaptations. Data analysis was done using descriptive statistics and thematic analysis. Findings of the study were presented in narrative form, frequency distribution, percentages and by use of photographs as follows.

RESULTS OF THE STUDY

This study obtained information from a total of 210 respondents and thus the following sections present the research results and subsequent discussions.

Demographic Information of Respondents

The demographic information of the respondents obtained provided parameters that supported the study although some of these parameters were not directly under study. These included class attended by the pupils with physical challenges, distribution of the teachers per each inclusive school and the gender of the teachers.

Distribution of pupils with physical challenges by school and class

The study involved four schools in Bungoma County namely A, B, C and D. In the four inclusive public primary schools, 138 pupils, 68 teachers and 4 head teachers participated in the study. The researcher selected the upper class pupils, that is, from class four to eight because the study assumed they could be able to comprehend most of the items asked in the questionnaire more than the lower class pupils hence were in a better position of answering the questionnaire items with very minimal assistance and much accuracy. Therefore, Table 1 shows demographic information for pupils by school and class attended.

Table 1: Distribution of Pupils with Physical Challenges by School and Class Attended
Number of pupils with physical challenges by school and class attended

School	Class 4	Class 5	Class 6	Class 7	Class 8	Total
A	15	12	15	22	6	70
B	7	10	8	11	4	40
C	2	6	3	4	3	18
Total	26	29	27	40	16	138

It was clearly noted that class eight pupils in all the schools had the least number of pupils who are physically challenged.

Distribution of teachers by school and gender

The study assumed that selecting all the teachers to be involved in the study was appropriate as at one point or another they get to interact with all the pupils with physical challenges from class four to eight. The teachers' details are as follows;

Table 2: Distribution of Teachers by School and Gender

School	Gender		Total frequency
	Female frequency	Male frequency	
A	12	10	22
B	10	8	18
C	9	6	15
Total	39	33	72

As illustrated in table 2, a total of 72 teachers were selected for the study of which the number includes four head teachers. In school A, 22 teachers were selected, 18 teachers were selected in school B, 15 teachers were selected in school C and 21 teachers were selected in school D. Out of the 72 teachers, 39 were female while 33 were male.

Outdoor Adaptations for Inclusion of Pupils with Physical Challenges

To achieve this objective, the following research question was posed; what outdoor adaptations are in place for inclusion of pupils with physical challenges in Bungoma County? To answer this question, questionnaires were administered to selected pupils and teachers while head teachers were interviewed. Additionally, an observation guide was utilized. The responses were coded and analyzed using frequencies and percentages as follows. This objective was tackled by looking into the following four items:

Adapted Toilets

In school A, it was revealed that there are adapted toilets. As much as these toilets have wide doors and raised toilet seats, they do not have holding rails to enable pupils with physical challenges to hold and use them with ease. In addition, some of the toilets are sullied making it so hard for the pupils with physical challenges to use them as some of them need to sit on the raised seats when accessing them. This is a threat to the health of the pupils. This situation is shown in Figure 1 below.



Figure 1: A Sullied Adapted Toilet with no Holding Rails

It can be clearly seen that the toilet has wide doors (as can be seen in the foreground) which can allow the users of assistive devices like wheelchairs to access them. However, at the middle ground where we have the raised toilet seat, the seat is grimy and the area surrounding the seat is also soiled. The toilet lacks holding rails which the pupils with physical challenges can hold onto when accessing the toilets. This means that even though the school has tried to adapt the toilets, it has failed to keep them clean and safe for use. It was also noted that some of the adapted toilets are located far away where pupils with physical challenges have difficulty accessing them. As a result, some pupils opt to use the un-adapted toilets which are very hard to access especially when using mobility devices like wheelchairs. For example, the pupil in Figure 2 is trying to access an un-adapted toilet thus has to leave the wheelchair outside the toilet and crawl to the toilet. This is a health hazard to the pupil.



Figure 2: A Pupil with Physical Challenges Trying to Access an Un-adapted Toilet

The above figure indicates that the pupil cannot move with the wheelchair inside the toilet because the doors are narrow. It was evident that the school has located the adapted toilets a little far away and the other reason for use of the un-adapted toilets can be that the adapted toilets are dirty. This is surprising because it is expected that the school managers must have read the outdoor adaptations that should be put in place as stipulated in various policies like the persons with disability act of 2003.

The finding of this study is consistent with the findings of studies conducted by Mukhopadhyay, Nenty and Okechukwu (2012). These researchers found that the majority of the schools lacked adapted facilities such as toilets which were accessible.

In school B, it was observed that adapted toilets were present. These toilets are clean, raised and with holding bars which ensure easy access by the pupils with physical challenges as exemplified on Figure 3.



Figure 3: Presence of Adapted toilets with Holding Rails Used by Pupils with Physical Challenges

In the Figure 3, the walls of the toilet are fitted with holding rails for support, further, the toilet is well raised. Where the pupils may be young, they may use the green toileting kit at the background of the photograph and hold themselves on the rails. Therefore, this inclusive school has well adapted toilet facilities. In fact, 98% of the pupils responded that well adapted toilets were present and very accessible. This clearly shows that the school has interpreted the requirements like the Ministry of Education Policy of 2009 which emphasizes the need to remove barriers within the education system that bars them from inclusiveness and equity.

In school C, it was observed that there were no adapted toilets. Therefore, pupils with physical challenges have to make do with those toilets used by their peers which have narrow doors which cannot accommodate wheelchairs. In school D, there was only one adapted toilet. Although the toilet was fixed with holding bars and was raised, it was located far away with no ramps or walkways leading to it. There was no clear entrance to the toilet facility as the one existing has hanging wires which can cause harm to those pupils accessing it. Therefore the toilet looked like it was rarely used and just like the pupils with physical challenges in school C, the pupils had to majorly make do with toilets used by their peers.

Issues of accessibility of the physical environment and safety to the pupils with physical challenges are paramount in an inclusive environment. The Salamanca Statement (UNESCO, 1994) expresses that when confronting the challenges of building an inclusive school, current consideration must be taken into account such as toilets. Therefore lack of adapted toilet facilities in the schools may be attributed to negligence or lack of information about the preparations for an effective inclusive setting.

Assistive Devices

The task force report (2003) notes that learners with challenges need provision assistive functional devices such as wheelchairs for mobility. This means that if the devices are not provided, then the psychomotor development of the pupils will be interfered with. The study established through questionnaires and observation that the schools have assistive devices such as wheelchairs, walking sticks, walkers and crutches to help pupils with physical challenges to move around both in and outside the classroom. Most of the pupils (70%) in the selected inclusive schools responded that they have access to assistive devices especially those that have severe physical challenges. However, some of the findings through observation did not agree with the opinions of the pupils. In school A, it was observed that most of the pupils in need of assistive devices were provided with. However, it was established that even though assistive devices are provided, some of the pupils have outgrown some hence some of the devices require repair or there is need to buy special devices for such pupils as shown below.



Figure 4: A Pupil with Physical Challenges Using a Wheelchair which he has Outgrown

As shown in the Figure 4, the pupil with physical challenges is using a wheelchair which a part from being smaller, it is equally faulty as it doesn't have a place to rest the left leg. Such a pupil needs a wheelchair with extended pads for resting the legs. As much as the pupil is being fed, he is experiencing a kind of physical challenges whereby he cannot sit straight on the wheelchair so giving him such a wheelchair makes him very uncomfortable.

In school B, pupils have access to assistive devices which help them in mobility. However, it was also observed that not all the pupils in need of these devices have access to them as illustrated in Figure 5 below.

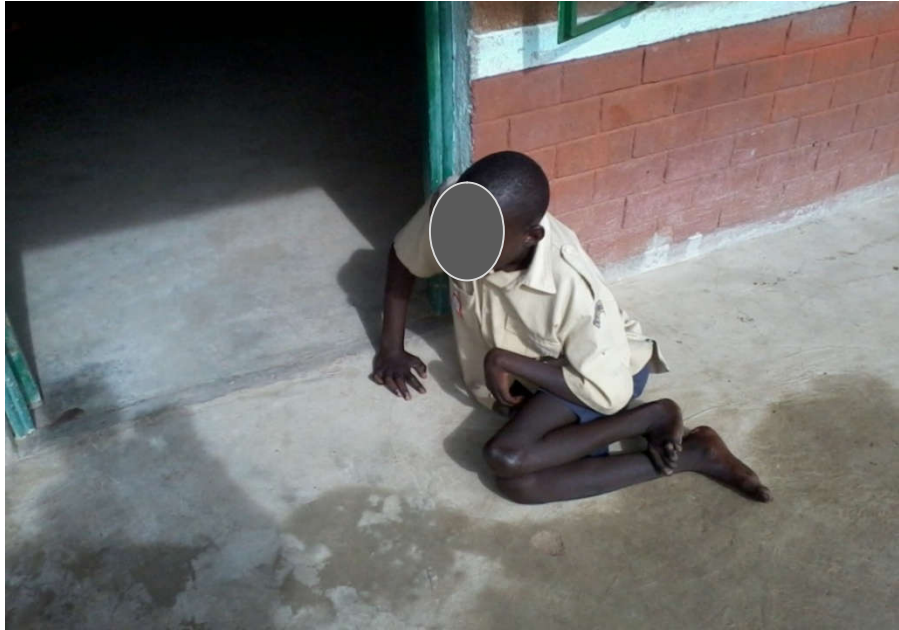


Figure 5: A Pupil with Physical Challenges ‘Propelling’ himself to Class

In Figure 5, the pupil has no wheelchair or any other device for use in mobility. The pupil is therefore ‘propelling’ himself to class with difficulty as he cannot walk.

In school C, it was observed that the inclusive school has only two devices: a walker and one wheelchair. Therefore it was clear there only two pupils with physical challenges who had access to the assistive devices. In school D, there was only one assistive device.

According to the Republic of Kenya (2009), it notes that majority of parents cannot afford assistive and functional devices needed by learners with special needs. They are expensive and out of reach to many of them. Therefore, it can be argued that because most of the burden of purchasing the assistive devices is left to the parents, then that can be the reason why most of the pupils who need them cannot access as they are expensive for their parents to purchase.

Through interviews, head teachers agreed that funds allocated are not enough for purchase of many devices as most of the devices are expensive thus parents who are able financially contribute towards the provision hence schools partly wholly depended upon their parents or guardians to provide assistive devices in cases where there was need.

In this case, it’s clear that fostering total inclusion of pupils with physical challenges by ensuring there are ways of making sure pupils with physical challenges access assistive devices was a challenge.

Ramps and Walkways

The study established that some of the inclusive schools have constructed ramps and walkways to aide free and safe movement of pupils with physical challenges. Ramps have been constructed for easy access to building facilities like classes, dining halls, dormitories, toilets and main offices. The observations that were made in relation to the ramps and walkways in each of the inclusive schools selected were as follows.

In school A, it was observed that the school has constructed ramps and walkways in the most accessed areas like the parade grounds, entrances to classrooms and main offices. An example of a walkway is illustrated in Figure 6. In this Figure, a pupil with physical challenges is able to move from one point to another with ease using a wheelchair to access a water point which is put closer to the classrooms. Therefore, this means that the school has adopted the requirement of provision of safe and accident free movements in the school by use of ramps and walkways.



Figure 6: A Pupil with Physical Challenges Using a Walkway

In school B, the researcher observed that ramps and walkways were present. However, it was found out that some of the walkways and ramps present were damaged and thus could not facilitate free movement of pupils with physical challenges using wheel chairs for mobility. If used, then accidents are prone to happen because of the irregularity of the surface. This scenario contradicts one of the items in the Task Force report (2003) which notes that learners with SNE need provision of materials and facilities in the regular schools and that the environmental adaption such as construction of ramps, adapted toilets and pavements are also essential.

In school C, it was observed that there were no walkways present. The school has constructed ramps that lead to only two of the classrooms out of the several classrooms present. Like in school C, there are no walkways in school D. There are only two ramps leading to two of the classrooms.

The finding of this study is consistent with the findings of studies conducted by Mukhopadhyay, Nenty & Okechukwu (2012). These researchers found that in majority of the schools, walkways were absent and ramps that were present were inaccessible to learners with physical challenges; for example, some of the ramps were too steep for students with physical disabilities to move up them independently. Therefore, such structural barriers tend to limit independent access to classroom and school activities, and impact negatively on participation and competence in the curricular and co-curricular activities.

All the head teachers agreed that where there were no pavements, the grounds were levelized. However, according to what was observed, schools like C and D have levelized the surfaces but such surfaces are disadvantageous in times of rainy season as they turn out to be muddy. 75% of the head teachers elaborated that the government sends very "little" amount of money as a provision for construction and maintenance of the ramps and walkways but because their schools are still growing, the funds are pumped into other demands. This means that the school has failed to make the mobility of pupils with physical challenges safe and accident free as required at the expense of other demands.

Adapted Games

Through an observational schedule, it was revealed that one inclusive school (school A) out of the four inclusive schools selected for the study had adapted playing grounds and adapted playing equipments for pupils with physical challenges. The playing grounds in the school were modified to suit the needs of the pupils with physical challenges. However, it was discovered that in all the schools, there was no evidence of modified rules on activities during games times.

In school A, there is an adapted netball field and an adapted football field. It was observed that the football field had smaller goal posts measuring height of 1.44 meters with a length of 3.66 meters compared to the standard goal posts which measure a height of 2.44 meters and a length of 7.32 meters. This is illustrated in Figure 7. However, the height and the length of the goal posts can be always adjusted depending on the severeness of the physical challenges of the pupils playing. It was further established that the adapted netball field was filled with broken bricks which were a hazard to the pupils using the field. In addition, as much as the school had the adapted playing grounds and adapted playing

equipment, there was no evidence of modified rules during games time to accommodate pupils with physical challenges. Also, when it comes to the adapted sports equipment, there was only one adapted wheelchair for racing but the adapted net ball and foot ball were worn out thus unused. In addition, school A had occasional sports program for pupils with physical challenges of which majorly they took place during the interschool competitions. In school B, C and D there were neither adapted fields nor adapted sports equipment like racing wheelchairs or adapted balls.

All the pupils with physical challenges (100%) noted that there were no modified rules or activities during games in order to accommodate them. It was observed that pupils with physical challenges were left on their own without a teacher present during games times hence ending up being discriminated by their peers by not accommodating them in the games.



Figure 7: Facilities for Adapted Games (adapted football field with smaller goal posts)

Lack of adapted games in the schools visited denies pupils with physical challenges to become the most that one can be as some of the pupils may be talented in some sports like athletics. This also lowers the esteem of the pupils with physical challenges.

SUMMARY

The first item that was studied under outdoor adaptations was the availability of adapted toilets. Notably, three out of the four schools selected have adapted toilets. However, it was established that some of the adapted toilets are located at a far distance where they cannot be easily accessed by pupils with physical challenges. Some also had no holding rails even if they had raised seats. Also, it was noted that in one of the schools, they were dirty which makes them a health hazard. In a study by Woolley, Armitage, Bishop and Curtis (2003) in six inclusive primary schools in Yorkshire, they noted that physical barriers, such as provision of adapted toilets, had been addressed in most schools. The findings of the study by Woolley, Armitage, Bishop and Curtis (2003) seem to be somewhat dissimilar to the findings of this study since only one school had well maintained and accessible adapted toilets. This dissimilarity can be attributed to inadequacy in allocation of funds and the lack of awareness on the importance of adapted toilets in enhancing learning activities in the school.

The second area in this category that the study sought to investigate was on the availability of assistive devices for pupils with physical challenges. As noted, generally, there was inadequate provision of these devices to pupils with physical challenges. The study found out that some schools had assistive devices like wheelchairs, walkers and walking sticks. However, it was only in one school where the devices were adequate and had even a surplus. Therefore, some of the pupils with physical challenges have difficulty getting from place to place quickly and with ease. This is contrary with the constitution of Kenya (Government of Kenya, 2010) that states that;

A person with any challenges is entitled to access materials and devices to overcome constraints arising from the person's challenges (Chapter 4, 54 (1e)).

The third area under this category that the study endeavored was to examine the adaptations in place to ensure there is accessibility and safe mobility of pupils with physical challenges to school facilities like toilets and buildings. According to Gerber (1996), outdoor adaptation is mostly meant to accommodate the learners with physical challenges within the school environment by facilitating their movement to different locations and undertake activities outside the classrooms with ease. Some of the schools selected in the study had various adapted outdoor facilities including ramps, walkways and assistive devices enabling learning environment for pupils with physical challenges.

From the results of the study, accessibility and mobility was average as at least all the schools selected had ramps to promote easy accessibility. However, the provision of walkways was inadequate as only two of the schools had them. As much as some schools had the walkways, they were not constructed to lead to all important areas like toilet facilities. Also, the existing walkways in one of the schools were poorly maintained. In addition, the study found out that most classrooms and other areas in two of the schools were not easily accessible to pupils with physical challenges due to inadequate ramps and lack of walkways.

The last area that this study looked at in regard to outdoor adaptations was the availability of adapted games. It was noted that the adapted games were inadequate for pupils with physical challenges. The study found out that only one of the inclusive schools had adapted playgrounds of which some are inaccessible and one adapted racing wheelchair. The study therefore concluded that there was inadequate provision of adapted games. Nevertheless, there was only one inclusive school which had occasional sports program for pupils with physical disabilities. There were no modified rules during games time in all the inclusive schools to accommodate pupils with physical challenges.

According to a research carried out by Woolley, Armitage, Bishop and Curtis (2003), some physical barriers existed to the inclusion of pupils with physical challenges in all six primary schools in Yorkshire where playgrounds were investigated. These related to access to playgrounds and the fixed equipment within them, the design of the playground and the fixed equipment and details in the playing surfaces and access between them. This research tallied with what was found out in this study in relation to lack of and inaccessibility of adapted playing grounds. Therefore, there is need for more attention towards sports for students with disabilities to attract more of pupils with physical challenges into sports.

CONCLUSION

The researcher concluded that outdoor adaptations were inadequate. A number of schools sampled in the study have adapted outdoor facilities such as adapted toilets. However, most of those toilets lack holding rails and at the same time the schools don't observe the required standard of hygiene making them more of a health hazard to the pupils with physical challenges who access them. Some toilets are also located far away from the classroom and are not easily accessed by the pupils due to absence of walkways and ramps.

Assistive devices such as wheelchairs and crutches have been provided to the pupils with physical disabilities in some schools although the number of such devices are few and cannot adequately serve the entire population of pupils with physical challenges who need them.

Although some of the selected inclusive schools have undertaken outdoor adaptations to ensure free and accident free movement among pupils with physical challenges classroom removal of obstacles, repairs of mobility materials and making of ramps, walkways are only in only in two schools and some of the walkways are worn out.

In addition, there was only one school with adapted playgrounds. However, the play grounds are rarely used by pupils with physical challenges as a result of lack of modified rules or activities during games time and the fact that there is lack of adequate adapted sporting equipments like balls and adapted racing wheelchairs. Furthermore, it is because some of the playgrounds have barriers like pieces of bricks which can cause harm.

RECOMMENDATIONS

Based on the findings, the paper recommends the following in an attempt to foster full inclusion;

1. The government, school administration and educators should ensure that assistive devices for all pupils with physical challenges in need be provided in all inclusive schools where they are accommodated. This would include adapted wheelchairs, crutches and walkers in order assist them in their mobility.
2. The school administration should ensure that adapted playgrounds and games are made available for pupils with physical challenges. This means that inclusive schools should have equipment for playing such as adapted balls should be provided. Further, the existing adapted playgrounds should be cleared and made safe for use. Further, the school administration through the teachers should ensure there are modified adapted rules in order to ensure free participation of pupils with physical challenges in games with others without physical challenges.
3. More adapted toilets should be constructed with raised toilet seats and widened doors to enable pupils with physical challenges especially those using wheelchairs to accesses them with ease. Such facilities should also be cleaned regularly, constructed near classroom and walkways and ramps

leading to the toilets be constructed to save the pupils from having to move long distance to relieve themselves.

4. Awareness of the various adaptations required in relation to inclusion as stipulated in various policies among others the National Special Needs Education Policy Framework (2009) be made to administrations of inclusive public primary schools for the pupils with physical challenges. This will help administrators to know how to make provisions for pupils with physical challenges to enhance their education. This could include having awareness seminars and workshops.

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