INSTRUCTIONAL CONSTRAINTS FACING ADAPTED PHYSICAL EDUCATION IN JOYTOWN SECONDARY SCHOOL FOR THE PHYSICALLY HANDICAPPED

Patrick Njau Gichia, M.E.D
Kenyatta University Primary School
P.O. BOX 58818-00200, Nairobi
Email: gichianjau@yahoo.com

Dr. Michael Njenga Njoroge, Ph.D.
Kenyatta University
Department of Special Education
P.O. BOX 43844-00200, Nairobi
Email: mcnjoroge@yahoo.com

Dr. Andanje Mwisukha
Kenyatta University
Department of Exercise, Recreation and Sports
P.O. BOX 43844-00200, NAIROBI
Email: mwisukha@yahoo.com

ABSTRACT

This study aimed at establishing instructional constraints facing Adapted Physical Education (APE) in Joytown Secondary School for the physically handicapped. The study took the form of a case study. Learners who were physically handicapped were randomly selected on stratified basis. Four administrators and three APE teachers were purposively selected. Three sets of questionnaires and observation schedule were used in data collection. A pilot study was done in Joyland Secondary school for the physically handicapped in Kisumu. Test-retest technique was used to ascertain reliability of the instruments. The data collected was coded and analyzed using descriptive statistics. The study revealed that lack of trained personnel, facilities and equipment, lack of relevant adaptations of facilities and equipment and inappropriate APE curriculum were the major constrains facing APE. Majority of teachers had no professional qualifications and facilities and equipment were inadequate. Two APE teachers indicated the syllabus as inappropriate. The researcher has recommended more government involvement in provision of facilities, equipment, trained personnel as well as appropriate curriculum for APE for the PH. The study further recommends areas of further research, to improve teaching of the subject hence improved student learning.
INTRODUCTION

Kenya Secondary schools curriculum has ten subjects and Physical Education (PE) is one of those core subjects (Ministry of Education, Science and Technology (MOEST) 2006). It is packaged in volume one syllabus alongside languages. PE was made a compulsory subject in all secondary school following a presidential decree of 1980 (Kinoti, 1998). In that case, PE is therefore an integral part of education. Hence, a good and appropriate PE programme cannot be overlooked. Indeed, the world conference on Education for All (EFA) of 1990 in Jomtein; Thailand, emphasized on PE as a major area within the endeavor for broader education (United Nation Educational Scientific and Cultural Organization (UNESCO), 1990). This is because PE provides every learner irrespective of level of disability with an opportunity to develop into a self disciplined, physically fit and healthy person (MOEST 2002). However, special provisions are required to attain maximum growth and development through organized education (Siedentop, 2011). Sherrill (1993) suggested that good teaching implied adapting the curriculum to individual needs. That in return helps minimize failure and preserve ego-strength Graham Halt and Parker (2001) further note that a good PE programme ensures student participation as a player rather than a spectator. Fahey (2000) and Sherill (1993), concurs that good PE for students with special needs should be adapted. The philosophy that guided APE was based on the understanding and appreciation of individual differences.

The benefits of APE for learners with Physical Handicap (PH) include improved overall physical functioning, stronger emotional and mental state of mind and intellectual awareness. In addition it contributes to muscular strength, development of healthier blood and glucose reading, greater stamina, new friends and self-esteem (Sherrill, 1993).

Findings from previous studies indicate that PE is vital to people with disabilities. Fahey (2000) noted that, PE is just as important for people with disabilities as for those who are able bodied. Auxter, Pyfer and Heutig (1993) suggested that the ultimate goal for PE for learners with disabilities was to equip them with motor skills that contributed to independent living. It also enable them maximize potentials for self-sufficient living in community. Wuest and Bucher (1999) further noted that APE enabled learners with disabilities perform tasks of daily living. It made them enjoy satisfaction from meeting daily challenges. APE enables the learner with disability, develop into a total person regarding his/her physical, social, emotional and intellectual potentials (Graham et al; 2000).

As a result of the above benefits Kenya Institute of Education (KIE) developed a secondary school PE syllabus for learners who are physically handicapped in December 2004 (MOEST, 2004). The syllabus provides activities within the framework of gradual progression of skills in games, athletics, gymnastics, swimming and dance among others (MOEST, 2004). The syllabus is a guide for secondary school Adapted Physical Education. The teacher is supposed to select topics for each class according to learner’s ability levels. APE is therefore a specially designed instruction in physical education, intended to address the unique needs of learners with SNE. However all this notwithstanding, learners with SNE are not fully benefiting from it because most teachers treat PE as a break time activity or mere playtime (Fahey, 2000). Children are mainly let loose on the field on their own. PE teachers in school for the PH have,
consequently, expressed concern over numerous problems which they faced as they taught the subject. This study was, therefore, designed to evaluate constraints faced in teaching of PE in Joytown secondary school for PH.

The study was guided by Adaptation Theory developed by Ernst Kiphard (Sherill, 1993). The Theory stresses individual and environmental interactions as a means of manipulating homeostasis – a state of equilibrium. Persons not only adapt to the environment but they alter and change the environment each time they responded. The environmental conditions should be suitable, adjusted and modified in accordance with individual needs. That therefore implies that adaptation entails both individuals and environment reciprocally changing one another. The process is continuous, dynamic and bidirectional. When applied to teaching, it is not a matter of changing the people, but rather manipulating the environment so that needs are met (Maslow, 1970). In APE for the PH, many variables interact in the teaching-learning process. They can be altered to promote success. The variables include: facilities, equipment, psychosocial variables and instructional variables. Physical facilities include fields, gymnasiums, courts and swimming pools.

Teachers should ascertain that environmental conditions are appropriately adapted to meet individual needs. Equipment includes balls, swings and bats. They could be described in terms of size, weight, color, texture and shape. The psychosocial variables refer to, attitudes and feelings about self and others. It considers the number of persons sharing the space, how they are perceived by teachers, learners and parents and how they affect learning (Sherill, 1993). Teachers and educators should appreciate and accept students for who they are to enhance intrinsic motivation. On the other hand, instructional variables include the syllabus, teaching style, method of presenting, and level of assistance during practice and structured use of time. Teaching materials and assessment tasks should therefore help to build trust, faith and confidence. The variables are interrelated and geared towards effective performance of Adapted Physical Education in schools. It therefore, implies that provision of relevant facilities and equipment, appropriate adaptations and appropriate APE syllabus, can enhance success in learner with PH. Adaptation theory (Sherill, 1993), further argues that professionals who are knowledgeable about variables are able to match abilities with content and teaching style to create optimal learning opportunities.

The study sought to identify constraints facing the teaching of APE in Joytown secondary schools for the PH. It sought to determine the adequacy of trained personnel who handle APE as well as availability and adequacy of APE facilities and equipment. It was geared towards determining whether the facilities and equipment were appropriately adapted. Similarly, appropriateness of APE curriculum for the PH in the school was evaluated.

Research Design

The study employed a case-study design. A case study design required the researcher to make a detailed examination of a single subject, a group or a phenomenon (Mugenda & Mugenda, 1999).
Table 1. Sample size in Joytown Secondary School for the PH

<table>
<thead>
<tr>
<th>Category</th>
<th>Gender</th>
<th>Total</th>
<th>Sample Size</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form Two</td>
<td>Boys</td>
<td>14</td>
<td>11</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>20</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>Form Three</td>
<td>Boys</td>
<td>18</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>18</td>
<td>14</td>
<td>78</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>70</td>
<td>54</td>
<td>77</td>
</tr>
<tr>
<td>Administrators</td>
<td></td>
<td>04</td>
<td>04</td>
<td>100</td>
</tr>
<tr>
<td>APE Teachers</td>
<td></td>
<td>03</td>
<td>03</td>
<td>100</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>77</td>
<td>61</td>
<td>79.2</td>
</tr>
</tbody>
</table>

Target Population

The target population was derived from Joytown Secondary School for the PH. The school is a mixed single streamed secondary school. The study targeted 137 learners with PH: 67 boys and 70 girls. It also involved all the three PE teachers handling APE in the four classes that was, form one to form four. In addition, four administrators in the school namely, principal, deputy principal, head of department PE and Sports and games master were involved.

Sampling

Joytown secondary school for the PH was purposively selected among the three secondary schools for the PH in Kenya. The school was selected due to its longest history in being the first secondary school for PH. Form two and three classes were purposively selected. Form one and four were excluded. Form one students were excluded due to their being new in the school whereas form four students were an examination class. A total of 54 students were selected through stratified random sampling based on gender and class level. That was seventy seven (77) percent of students with PH in the two classes. In addition, the principal, deputy principal, head of department of games and sports, games master and three teachers of APE were purposively selected for the study because they were the key players in the implementation of APE in the school. The study therefore used sixty one (61) respondents from the target population. Table 1 displays a summary of the sample size.

Research Instrument

The data was collected using observation schedules and questionnaires. Observation solicited information on facilities and equipment available and adaptation made. The performance during PE lesson was also observed. Observation schedule was used to check availability of APE facilities and equipment. Three sets of questionnaires were used. The first set solicited
information from the students who were physically impaired. It helped gather information on their views on availability, adequacy and adaptation of APE facilities and equipment. The second questionnaire targeted the four administrators namely principal, deputy principal, head of PE and sports department and games master. The three teachers handling APE in the four classes (Form one to form four) filled the third questionnaire. It solicited information from the respondents on qualification of APE personnel, availability and adequacy of APE facilities and equipment and their adaptations. It also established appropriateness of APE syllabus for the PH.

Piloting

Pilot study was carried out in Joyland secondary school for the PH in Kisumu. The school for pilot study was identified through simple random selection that involved tossing of a coin. Piloting ensured that the instruments were stated clearly and had the meaning to all respondents (Mugenda & Mugenda, 1999). It also helped the researcher establish time taken to administer the instruments. Relevant corrections and modifications were then undertaken before administering the instruments to the study sample. Corrections included restructuring the question items which were considered ambiguous. Irrelevant questions were also corrected. This helped in collecting more meaningful data.

Data Analysis

Collected data was coded and analyzed. Actual coding of data contained in the completed questionnaires was done by the researcher. Respondents who gave a similar answer to a question were given the same code and later counted. The data was then analyzed using descriptive statistics that involved tabulating, graphing and describing data. This helped presentation of data in an organized and meaningful fashion. The data was analyzed according to the objectives and research questions of the study.

RESULTS

a. Number of trained teachers in APE in Joystick Secondary School for PH

All the four administrators namely principal, deputy principal, games master, and head of department were professionally trained teacher. However two of the administrators had no professional training in special needs education. Only 4 teachers out of 22 had training in Special Needs Education (SNE). All the three APE teachers were professionally trained at diploma level. Only one of the APE teachers had training in SNE through seminars and in service training. The teachers had taught APE for PH for less than 5 years.

b. Availability and adequacy of APE facilities and equipment in the school

It was evident from all the respondents that facilities and equipment were inadequate as displayed in table 2. This was noted by 41 (75.9%) of the students two administrators and all (100%) the three APE teachers. In general 75% of the respondents indicated inadequacy of facilities and equipment against 25%. All the administrators and APE
teachers concurred on lack of APE indoor facilities in the school. On quality of APE facilities in the school the students view were as follows 24 (44.4%) of the students described them as poor whereas 14 (25.9%) described the facilities as very poor. Thirteen (24.1%) and three (5.5%) ranked the facilities as good and very good respectively. Attendance of APE lessons during wet weather and lack of appropriate facilities was ranked the major problem. Maintenance status of APE facilities and equipment was classified as average. There was no approved book and other instructional materials for the APE in any category at any level. APE literature was therefore classified inadequate.

c. Adaptation of APE facilities and equipment in the school
Facilities included football pitch, volleyball and handball courts and athletic track. Equipment included balls for football, volleyball, netball as well as table tennis equipment. Facilities and equipment were not appropriately adapted to meet learners’ unique needs, as shown in figure 1 and 2 respectively. Learners on wheelchairs were most affected as far as accessing the field was concerned because there were no ramps connecting the classes to the fields. However modification on the rules of the games to enable participation by learners with PH was done. Modification included time, stance, rules, size and weight of equipment as well as dimension on the field of play.

d. Appropriateness of APE syllabus in meeting unique needs of learners with PH
Findings of the study revealed that the APE syllabus was not appropriate. The time allocated was not adequate to perform activities stipulated in the syllabus. The activities were classified as difficult to perform. Majority of teachers confirmed that it was difficult to interpret the APE syllabus. The objectives were difficult to achieve. Degree and diversity of handicapping conditions necessitated a diverse syllabus which put into consideration each learners abilities and interests.

e. Problems constraining teaching of APE for PH
Overall the major three problems constraining teaching of APE for PH were lack of facilities and equipment; lack of qualified teachers and unadapted facilities and equipment according to the study findings.

Table 2. Adequacy of APE Facilities and Equipment

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Inadequate</th>
<th>Adequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>41</td>
<td>13</td>
</tr>
<tr>
<td>Administrators</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Teachers</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>46</td>
<td>15</td>
</tr>
</tbody>
</table>
Figure 1. Adaptation Status of APE Facilities

Figure 2. Adaptation Status of APE Equipment
DISCUSSION

The study revealed that the number of trained teachers in APE in Joytown secondary school for the PH was not adequate. Teachers trainings in APE were through seminars which normally took a short period and not intensive. The teachers were not experienced and had taught APE for less than five years. Further, teachers of APE did not have teacher aides and spotters during the lessons. That negated the education Act (Kenya, 1980) which suggested that an approved curriculum should be taught by trained teachers. The results similarly contrasted Kamunge report (1988) which emphasized on trained personnel to handle learners with SNE. Nevertheless, the study concurred with Gathua (1990) which indicated that 81 percent of teachers handling APE in special schools in Kenya were not trained.

The study found out that APE facilities and equipment were the major problems facing teaching of APE. Some facilities were lacking and available one were not adequate. Wet weather facilities and equipment were not available leading to non-attendance of APE lessons during wet weather. APE literature was also inadequate as well as indoor facilities for learners who could not access the outdoor facilities. That implied that the learners' performance was adversely affected. The results concurred with Simiyu (1990) that the government neglected equipment and facilities. Similarly the study supported literature by Frank (2000) that provision of PE equipment and facilities was borne by parents and 70 percent of learners with SNE were from poor families hence unable to be financed adequately. The study further confirmed earlier reports that facilities and equipment relevant for learners with SNE were not available in schools (KISE 2003; Simiyu, 1990).

Results indicated that most of the facilities and equipment were not appropriately adapted to meet the unique needs of learners with PH. Learners mainly on wheelchair could not access most of the facilities and equipment. This adversely affected learners' performance and even marginalized others. Koecho, (1999) recommended that due to heterogeneity of children with PH, there should be specific adaptations at all specific levels of education. However most of the rules were modified to enable learners with PH participate in the activities as approved in the syllabus. This concurred with studies by Graham et al (2001) and Sherill (1993) who recommended modification of rules to fit all learners. Otherwise some learners would be under-challenged or over-challenged.

The study findings indicate that the APE syllabus is irrelevant and not suitable for learners with PH. It revealed that time allocated was inadequate, objectives difficult to interpret and unachievable, activities in the syllabus were difficult and as a result not all learners with PH could perform them effectively. The findings confirmed study results by Gathua (1990) which cited inappropriate curriculum for PH. The study further concurred with literature by Siedentop (2001) which indicated that too many activities were done in a short time. Degree and diversity of handicapping conditions necessitated diverse abilities and interests. On overall, the three major problems were lack of facilities and equipment lack of qualified teachers and unadapted facilities and equipment.
RECOMMENDATION

The Ministry of education should enact a policy to increase the number of trained teachers in education for learners with SNE in general and APE in particular. The universities should train more teachers in APE as well as other relevant staff who would aid the teachers during lessons. The government should consider zero-rating taxes on imports of sports equipment and facilities for learners with PH. Further, KIE should consider allocating more time for APE for learners with PH. Finally, a comparative study to establish instructional constrains facing APE in other Secondary Schools for the PH should be done.

References


Kenya Institute of Special Education. (2003). Introduction to adapted physical education for learners with special needs. (Module 27) Nairobi: KISE.


