

PHYSICAL DEVELOPMENT AMONG CHILDREN AS A FACTOR IN DETERMINING THE CONTENT OF PHYSICAL EDUCATION INSTRUCTION: IMPLICATIONS FOR UBE TEACHERS

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Abstract

Physical development among all other human developments has been discovered to be very vital for the successful teaching and learning of physical education. This paper therefore examined physical development among children as a factor in determining the content of physical education instruction. It also examined the implication of this for the Universal Basic Education (UBE) programme, which the Federal Government is embarking on. The objectives of the UBE programme, concepts and attributes of physical development and physical education, age groupings, identified physical characteristics and suitable exercises for each group were all examined in this paper before the conclusion remarks.

Introduction

The Universal Basic Education (UBE) Programme of the Federal Republic of Nigeria was formally launched by President Olusegun Obasanjo on the 30th of September, 1999, at Kangiwa Square, Sokoto (coincidentally, the same place the same Head of State, but then an Army-General launched a similar programme - the Universal Primary Education (UPE) in 1977, the objectives of the UBE programme have been laid down as follows:

- (i) Developing in the entire citizenry a strong consciousness for education and a strong commitment to its vigorous promotion.
- (ii) The provision of free universal basic education for every Nigerian child of school-going age.
- (iii) Reducing drastically the incidence of drop-out from the formal school system (through improved relevance, quality and efficiency).
- (iv) Catering for young persons who, for one reason or another, have had to interrupt their schooling as well as other out-of-school children/adolescent, through appropriate forms of complementary approaches to the provision and promotion of basic education.
- (v) Ensuring the acquisition of the appropriate level of literacy, numeracy, manipulative, communicative and life skills as well as the ethical, moral and civil values needed for laying a solid foundation for life long learning.

The above objectives, if pursued vigorously, can help Nigeria achieve the long deserved quality education for all its citizens. No nation achieves its needed progress without at least a minimum level of formal education. The fact that Nigeria is among the nine most illiterate countries in the world makes this bold intervention by the Federal Government to start UBE programme a heart-warming news.

Quality education greatly increases the productivity and potentials of individuals and society. However, economic decline in Nigeria has, since the early eighties, impoverished a greater percentage of Nigerians and made education an unaffordable luxury for many families. There is also large-scale degradation of public school systems in Nigeria. These and other related factors have led to a definite decline in the quality of Education in Nigeria - hence the intervention of the Federal Government through the UBE can best be described as timely and strategic.

In its attempt to adapt Basic Education to the Nigeria culture and its evolutionary growth, one of the programmes in objective terms incorporated among others was programmes/initiatives for early childhood care and education. To achieve this and other objectives, the importance of adequate trained teachers cannot be over-emphasized. This is because according to Eze (1999), in learning situation, the problems of shortage of facilities and equipment can be managed but not the shortage or lack of trained teachers.

For any teacher to successfully impart knowledge to the learners, (especially in the area of physical education which makes use of the physical attributes of learners) the teacher's knowledge of their physical development is very vital. This is because their physical development characteristics determine the level of physical activities they can be exposed to. Unfortunately, the number of

teachers (physical education inclusive) available in the country for the take-off of the programme is grossly inadequate. Against this backdrop, Elekwa (2000:24) said:

With the present acute shortage of teachers and low enrolment in teacher education, and inability of government to retain trained teachers in service, the huge investments in education may not be justified and the UBE programme may be imperiled from the start.

Again, personal experience has shown that most of the available teachers especially in the areas of physical education, recreation and dance lack the basic knowledge that can help in teaching the growing youths. This need necessitated this paper and forms its focus.

Conceptual Clarifications

Physical development and physical exercises are being used interchangeably by many nonprofessionals in Physical Education. However, much blame may not be poured on these people because physical exercise is an express way through which physical development can easily be achieved. To clearly explain the concept of physical development, the words "physical" and "development" would be defined separately before bringing the meanings together.

The word "physical" has to do with observable performances. It has to do with activities of the body example, walking, dancing, kicking, running, etc. On the other hand, 'development' here should not be taken to mean growth. It refers to the individual's ability to function, ability to perform a change in one's functioning.

Therefore, physical development is the development of physical fitness, physical skills and body mechanics, safety skills and attitudes. Physically developed body should as its characteristics include physical fitness. Physical fitness involves the development and ability to maintain muscular strength, endurance, speed, power, ability and other attributes which one needs in order to enable him/her carry out his/her daily tasks. Physical fitness also ensures sound health - that is, freedom from most of the diseases, developed body with proportionate bones etc. physically developed body also ensures the acquisition of sports and safety skills by the individual who has it - hence the need to have physically developed body.

Physical education is "that of educational process which contributes to the mental, physical, social and emotional growth and development of each child through the medium of physical activity (Bucher 1975). In the light of the above contributions of physical education to all facets of human development, the ways and means of impacting it to the children should be of great concern to the UBE teachers.

Age Groupings And Identified Physical Characteristics

It is important to observe that the choice of an activity as well as the manner in which children are motivated to learn must be based upon their growth and development characteristics - physical characteristics being one of them.

Early Childhood (4-6 Years)

Children under this group have soft and also flexible bones. Their hearts and lungs are small in relation to their body weight (Kirchner, 1976), the legs grow faster than the arms, the arms grow faster than the trunks and the trunks faster than the heads. This is not the period of tooth eruption. Ordinarily, the deciduous teeth have erupted before the age of three and the permanent teeth do not begin to erupt till after the age of six. This is the period of teeth and bone building in the children. Bone cell formation is active (the patella and several of the wrist bones begin to ossify), and there are additions to the enamel and dentine of many permanent teeth. Muscular strength is some what limited, giving rise to early postural defects such as sloping shoulders, spinal curvature and incorrect feet alignments. Kirchner (1976) however observed that these problems may be the result of incorrect sitting, standing or walking posture rather than inherited or nutritional deficiencies. The children under this age have gross motor control of hand and fingers. Dominance of the foot and hand becomes well established near the end of this stage.

Middle Childhood (7-9 Years)

This stage was best described by Nwegbu (1999) as the stable regular structural and physical maturation growth stage. At this stage, the child's chest grows faster than the abdomen, the legs faster than the trunk. Children at this stage continue to loose their fat and show appropriate gains in

muscular tissue. The increase in muscular weight gives rise to the general increase in weight particularly in the arms and legs, increase in muscular control, particularly those relating to hand - eye movements.

The pulse and breathing rate decline, moving gradually towards their adult levels. By the age of nine, the rate per minute is already above 90 for a normal pulse, or 20 for normal respiration. Typically, twelve permanent teeth erupt; four molars and eight incisors. At this stage (or age), there is also more evidence of postural abnormalities. There is increase in the incidence of fractures which is due to peculiar "accident prone" with the greatest number occurring to boys. The smallness of the heart in proportion to the body weight at this stage accounts for the development of fatigue with strenuous activities. However, there exists wide differences at this stage of life. While some have permanent teeth eruption, in some other children, the number of permanent teeth may be less than ten or more than sixteen.

Laic Childhood (9-12 Years)

At this stage of a child's life, there is a big advancement in physical growth and maturation. There exists differences in height and weight regardless of chronological maturation. Girls on the average are two years ahead of boys in physiological maturation (Daughtrey and Lewis, 1979). There appears at this stage the secondary sex characteristics. Heart and lungs are, in size and capacity, proportionate to the height and weight. Endurance may decrease. Muscular strength continues to increase - with boys showing a recognizable improvement over girls which may be due to more vigorous activities boys participate in rather than structural or physiological change. On the other hand, girls at this stage are more flexible and graceful in self-testing and rhythmic activities. Muscular co-ordination .and reaction time with boys continue to increase showing a noticeable superiority in skills involving hand-eye co-ordination.

Implications Of The Development Characteristics Of Children In Giving Instruction By The Ube Teachers In Physical Education

A good teacher is a teacher who can read the performance abilities of his students. He is the person who knows what they can do and the ones they cannot do, basing his observations on among other factors, the physical development of the students. This is because the students have differences in their physical features. To support the above view, Eze (1999) observed that those grouped under early childhood are individualistic, have short attention span, possessive and intensely curious; therefore, they should have their separate planned lessons. Again, even within the groups that are of the same age, individual differences cannot be ruled out. These should be taken care of by the teacher.

Recommended Type Of Exercises Suitable For Each Group: Primary School Age And Intermediate School Children

(a) *Primary School Age (4-8 Years)*: At this stage of life, height and weight increase moderately and steady.

So, the teacher should provide gross motor activities such as running, climbing, etc. for both boys and girls. He should be conscious of postural development so as to have early detection of structural anomalies. Since they also have small bodies at this stage, the teacher should reflect this in the size of supplies and equipment used in teaching them. At this stage, their hearts and lungs are not well developed. They are easily fatigued but recover rapidly. The teacher should provide vigorous activity; example climbing, running, swimming, etc. with provision for frequent rest intervals. Eye - hand co-ordinations are not fully developed. They lack precise focus (tendency to farsightedness) and spatial judgement. The teacher should at this stage provide for manipulative skills through exercises like throwing, catching, kicking small object (such as balls) with short distances and slow speed. Increase in their speed and distance will be gradually experimented upon and should depend on increase in their skills acquisition. They also have slow reaction time at this stage. The teacher should involve them in numerous activities involving a quick change of speed and direction. He should provide games and stunts involving speed, dodging, and changing directions.

Dr. S.G.N. Ezc

(b) Intermediate School Children: (9 - 12 Years)

This period is described as transition period from childhood to early adolescence and characterized by rapid changes in growth and maturation. Height and weight increase moderately and gradually at this period. The teacher should continue to provide vigorous activities, emphasizing strength and endurance for longer period of time. Postural development at this stage is a particular problem. Teachers should observe in the classroom the sitting and walking postures and plan in the physical education programme for general posture development.

Muscle strength continues to increase during this stage with boys gaining more than girls because of the type of activities they participate in which girls do not. Long periods of endurance are possible in this group but girls who reveal early signs of puberty will show early signs of fatigue. The teacher should continue to provide vigorous activities for longer periods of time and frequent rest periods for both sexes. Special concern should also be given to girls who show early signs of fatigue. In the upper classes, the teacher should make provisions for separate classes for different activities of the programme. The teacher should provide activities that involve arms, shoulder, back and abdominal area.

At this stage, muscle coordination and reaction time continue to improve with boys revealing a noticeable superiority in skills involving hand-eye coordination. The teacher who notices this should organize for competitive individual and team sports and ensure that he separates girls and boys in team games to allow both sexes to develop according to their own level of skill and interest. At this stage, girls become superior to boys in activities that require flexibility. The teacher should provide for movements which enhance flexibility.

It is important to add here that the "exceptional children" in the class should also be identified and catered for in the provision of learning opportunities by the teacher. These children are those who in various ways, deviate from the "normal" in intelligence, physical health, and behavioural characteristics of the "average" or "typical" child. These are the intellectually gifted, physically handicapped, the slow learners, and the social deviants. (Kirchner 1976). Failure on the part of the teacher to identify and make provisions for these groups of people will make his teaching meaningless to them.

Conclusion

It has been statistically shown that the number of teachers in various fields of study (physical education inclusive) is grossly inadequate for the successful implementation of the UBE programmes (Elekwa, 2000). Physical education contributes greatly to the learning of other subjects and is an area that needs specialists for prudent handling (just like other subject areas). The relationship between physical development and its implication for teaching physical education has been clearly stressed in this paper. UBE teachers of physical education should therefore make use of this relationship in educating the Nigerian youths during the UBE programme implementations.

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