PATTERNS OF INTRINSIC MOTIVATION AS DETERMINANT OF PARTICIPATION IN PHYSICAL ACTIVITIES AMONG SECONDARY SCHOOL STUDENTS IN SOUTH-WEST NIGERIA: BASIS FOR SUSTAINABLE DEVELOPMENT AND HUMAN CAPACITY BUILDING

Mayowa Adeyeye
Department of Human Kinetics and Health Education
University of Lagos, Nigeria.

Abstract
The place of physical education in our school curriculum at secondary school level in Nigeria and indeed the continent of Africa has been relegated to the background. To encourage students to show commitment and interest, intrinsic motivation must be emphasized while teaching the subject at this level. This study investigated the underlying intrinsic factors that motivate secondary school students to participate in Physical Education class and physical activities. Six hundred male and female students (N-600) were randomly and purposively selected from some selected secondary schools in Ajeromi Ifelodun local government area of Lagos State. The descriptive research design was adopted using Intrinsic Motivation Inventory (IMI) by McAulay, Duncan and Tammen (2007) to elicit opinion from respondents. The test-retest reliability value obtained for the instrument, using Pearson Product Moment Correlation Co-efficient was 0.92. Out of the six hundred questionnaire distributed only five hundred and fifty-four (N-554) were correctly filled, coded and analysed while inferential statistics of Chi-Square ($X^2$)was used to test all hypotheses at .05 alpha level. Based on the findings of this study, the result revealed that several factors intrinsically motivates students to participating and involving in Physical Education class and physical activities which includes instructors’ personality and perceived competence of the students.

Keywords: determinat; participation; motivation; intrinsic motivation; secondary school

INTRODUCTION
The place of physical education in the school curriculum especially at secondary level in Nigeria has been relegated to the background; students do not show commitment and enthusiasm to the subject and government at all level seem not bordered with this new development. Despite the various values and importance of physical education and sport, which the federal government identified the vision 20-2020 document, yet physical education is gradually becoming moribund in our school system. In the document, government listed eight points as the major contributions of physical education/sport to national goal and development. They include:

- Empowerment the youth
- Tool for national mobilization
- Sport as a tool for enhancing sport-related industries
- Spot as a diplomatic tool
- Sport as a political tool
- Sport as a recreation
- Sport as a tool for social engagement
- Sport for competition
- Sport as an economic tool
- Sport as a health tool

However, if these objectives must be realized for national and global development, physical education ideal and principles must be instilled in the youth right from the school level with a view to energizing the required impetus for sustainable development and human capacity building for African continent and Nigeria in particular.

Some psychologists have agreed that intrinsic motivation is the surest way to retaining learning and encourage learners to acquire the desirable learning experiences, hence the extrinsic value of sport and physical education must be downplayed, while greater emphasis must be placed on the intrinsic benefits and values for the purpose of helping youth especially at secondary school level to be more committed to the subject. Beyond the social and economic benefit of physical activity which is derivable from taking part in both formal and informal physical activities, it is basic to health and fitness. Physical education is recognized worldwide in school curriculum as an integral part of the entire education process which caters for the physical, emotional, social, psychological and spiritual development of an individual child through participation in organized physical education programmes. Physical education is the only subject that caters for the three domains of education i.e. cognitive, affective and psychomotor. Because of its nature which permits freedom of expression through physical activities; physical education is one of the most preferred subject yet literatures have reported that interest and participation is declining among students.

Experts around the world have concluded that physical education is a critical component of a child’s overall education. It can improve body awareness and help a child develop healthy habits at an early age. There is also evidence that participation in physical education improves concentration and performance in academic courses. Furthermore, such classes provide an opportunity to address broader health and safety issue and ensure that all children, including those with disabilities,
have an opportunity to participate in sport. Physical activity is basic to health and fitness. Good health or high level of fitness has been found to be a corollary to other forms of excellence. To attain certain level of fitness, physical education as a subject has been designed for this purpose. The problems plaguing physical education is not peculiar to Nigeria alone; for example Hardman (2004) reported shortage of facilities and inadequate trained personnel are widely reported throughout the continent of Africa as the peripheral value in the curriculum; At the detriment and development of physical education, priority is accorded to language and mathematics with even meager allocated to physical education/sport resources often diverted to other subjects. Hardman (2004) observed that majority of African countries has either no or minimal provision for physical education for children with a disability. Although the challenges facing physical education in the school curriculum seems to be a global phenomenon. Hardman (2004) reported that a perceived decline in the position and presence of physical education in school curricular worldwide was apparent in some countries in the 1970s and 1980s, Hardy (2004) further observed that a range of journal articles reporting on the perilous position of physical education in schools were sighted in Hardman (1993, 1994, 1996, 1998a, 1998b &1999). A decrement in student’s motivation for participation in physical activities has been linked to extrinsic factors such as facilities and equipment, rewards, plaque, scholarship, money and other tangible materials. Motivation determines students’ involvement in physical activities and sustains their participation. There was a tendency among school children to avoid physical education lessons in school, and this phenomenon was especially prominent among female students (Cruz, 1999; Li-Chow & Yeung, 1995). Deventer (2003) also reported that physical education as a school subject no longer exists though it is a focus of the learning area ‘life orientation’ along with health promotion, social development, personal development and orientation to the world of work foci in grades R-9. According to Dishman (1990), participation was related to attitude. Therefore, the purpose of this study was to determine the preferred intrinsic motivating factors that would increase the interest of students in participating in physical education classes.

Motivation as posited by LeUnes (2002) refers to those personality factors, social variables and cognitions that come into play when a person undertakes a task at which he or she is evaluated, enters into with others or attempts to attain some standard of excellence. Weinberg and Gould (2009) noted that intrinsically motivated performers, especially youths in schools show higher levels of attention, and exhibit better and positive attitudes towards participation in physical activities. Schools are of particular interest when it comes to intrinsic versus extrinsic motivation particularly because of the different outcomes that researchers have shown to result from intrinsic motivation: more interest, excitement, confidence, enhanced performance, persistence, creativity, self-esteem and general well-being (Ryan & Deci 2000).

Over the years, several theorists have offered insights into the construct through their conceptions of intrinsic motivation. According to the self-determination theory (Ryan & Deci, 2009), intrinsic motivation is dependent on the interaction between different individual perceptions of self, interest, amount of; appropriate skills; feelings of competence and choice in the classrooms are all things that can potentially affect the intrinsic balance. One of the hottest debates in the field of intrinsic motivation has focused on rewards and how they affect motivation in physical activity.

Student’s expectancies about physical activities are associated with their choice of intrinsic motivation. Rodgers and Brawley (1991) argued that outcome expectancies are formed by the interaction of two factors: outcome likelihood which refers to the probability that a certain action will lead to a certain outcome and outcome value (i.e. the value assigned by individual to the possible outcome of the action).Goudas (2000), reported that when students perceive their physical education class as resulting in useful and important outcomes, then an increment in intrinsic motivation is expected to occur. The social environmental factors that have been shown to influence students’ intrinsic motivation in physical education class are motivational climate, teaching style, content of the lesson and adult encouragement. When the motivational climate in a physical education class is mastery oriented (when students are directed toward self-improvement and praise is offered to them for high effort) then it is probable that students will show higher levels of intrinsic motivation (Biddle, 1995).

Siedentop (2007), expressed that a teaching style that provides students with opportunities to make choices appear to have a positive effect on their intrinsic motivation. Intrinsic motivation varies according to the activity. Students show different levels of intrinsic motivation in different activities and this is attributed partly, to perceived competence to the degree of self-determination that the students has for the specific activity. One potentially important basic factor to motivate greater physical activity behaviour is choice. The association between choice and intrinsic motivation to engage in behaviour is central theme of self-determination theory. This study therefore aims at investigating how psychological factors, such as instructor’s personality, individual differences including factors of intrinsic motivation such as self-competence and social relatedness, impact on participation in physical activities among secondary school students in Lagos state.

LIMITATION OF THE STUDY
The only limitation of this study was the inability of some participants to fill the questionnaire correctly.

METHODOLOGY
The descriptive survey was adopted for this study. Six hundred (n=600) secondary school students were randomly selected from six private and public secondary schools in three local government areas of Lagos state.
The local government included Apapa Local Government, Ajeromi-Ifelodun Local Government and Surulere Local Government areas of Lagos State. Two schools were selected from each local government, one which was private and the other was a public school. The schools included Tincan Island Junior School, Apapa; Sacred Heart College, Apapa; Rybecca Model College, Ajeromi-Ifelodun; Ajeromi-Ifelodun High School; Stadium High School, Surulere; and Ajigbega Secondary School, Surulere respectively.

An adapted questionnaire named Intrinsic Motivation Inventory (IMI) by McAlay, Duncan and Tammen (2007) was used to elicit opinions from respondents. The instrument was divided into two sections, Section A elicited responses on the demographic variables of the participants while Section B tested for the variables of the study. The participants were asked to choose the extent to which they agree with the statement on a five point scale of Never, rarely, Sometimes, Frequently and Always. The validity of the instrument was ascertained by some experts from cognate unit of this study who assisted in content and construct validity. The reliability of the instrument were Instructors’ Personality: r = .78, Self-Competence: r = .80, Relatedness: r = .84, Individual Differences: r = .68, Role Model: r = .85 was obtained. Six hundred (n=600) copies of the questionnaire were administered by the researcher through the assistance of two research assistants after an approval from the institutions school authorities. Out of the 600 copies of questionnaire distributed, only five hundred and fifty-four (554) were correctly filled, returned and coded for analysis. Descriptive statistics of frequency counts and percentage was used to analyse data while inferential statistics of Chi-square ($X^2$) was used to test all hypotheses at .05 alpha level.

**RESULT**

The demographic data revealed that by sex, 248 (44.8%) were male while 306 (55.2%) were female. Based on age, 236 (42.6%) of the respondents fell within 10-12 years, 244 (44%) of the respondents fell within 12-14 years, while 68 (12.3%) of the respondents fell within 16 and above. The data analysis of the responses of the participants are shown below

Table 1: Chi-square Result of Instructor’s Personality

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Df</th>
<th>Calculated $X^2$</th>
<th>Critical $X^2$</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor’s Personality</td>
<td>554</td>
<td>16</td>
<td>53.72</td>
<td>26.30</td>
<td>$*$ Significance</td>
</tr>
</tbody>
</table>

$X^2$ Cal. Value = 53.72 > Crit. $X^2$ value = 26.30, df 16 $p<0.05$

Table 1 above showed that calculated value of 53.72 was greater than the critical value of 26.30 at 0.05 alpha level. Based on this, the null hypothesis which stated that instructor’s personality will not significantly influence participation in physical activity among secondary school students in Lagos state was rejected. This implies that instructor’s personality have significant influence on participation in physical activity among secondary school students in Lagos state.

Table 2: Chi-square Result of Perceived Competence

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Df</th>
<th>Calculated $X^2$</th>
<th>Critical $X^2$</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Competence</td>
<td>555</td>
<td>16</td>
<td>50.73</td>
<td>26.30</td>
<td>$*$ Significance</td>
</tr>
</tbody>
</table>

$X^2$ Cal. Value = 50.73 > Crit. $X^2$ value = 26.30, df 16 $p<0.05$

Table 2 above showed that calculated value of 50.73 was greater than the critical value of 26.30 at 0.05 alpha level. Based on this, the null hypothesis which stated that perceived competence will not significantly influence participation in physical activity among secondary school students in Lagos state was rejected. This implies that perceived competence have significant influence on participation in physical activity among secondary school students in Lagos state.

Table 3: Chi-square Result of Social Relatedness

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Df</th>
<th>Calculated $X^2$</th>
<th>Critical $X^2$</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Relatedness</td>
<td>555</td>
<td>16</td>
<td>203.97</td>
<td>26.30</td>
<td>$*$ Significance</td>
</tr>
</tbody>
</table>

$X^2$ Cal. Value = 203.97 > Crit. $X^2$ value = 26.30, df 16 $p<0.05$

Table 2 above showed that calculated value of 203.97 was greater than the critical value of 26.30 at 0.05 alpha level. Based on this, the null hypothesis which stated that social-relatedness will not significantly influence participation in physical activity among secondary school students in Lagos state was rejected. This implies that social-relatedness have significant influence on participation in physical activity among secondary school students in Lagos state.

**DISCUSSION OF FINDINGS**

Several studies have been conducted in the area motivation (Adeyeye & Adeyemo, 2013; Maria, Isabel &Isabel, 2012; Martin, Corneliu, Bany, Ciprian, Iulian & Florin, 2011; Ryan & Deci, 2000; Alice & Rieve, 2005) but little empirical findings have been reported in the area of intrinsic motivational determinant of students participation in physical activity. In Nigeria, there is decline in the level at which students turn out to participate in physical activities especially Physical Education (PE) class unlike what physical activities and PE used to be in the agrarian era. Considering the numerous benefits of students participation in physical activities and PE to the academic achievement of students as reported by Virginia, Meghan, Robert, Suzanne, Glen & Kamen, (2009) in their study that physical activities and PE may enhance student’s concentration and classroom behavior in school, which may contribute positively to academic achievement and also helps students concentrate and focus. They further submitted that physical activities may help implore self esteem and...
ally alleviate stress, anxiety and depression problems that can affect school performance. Three hypotheses were generated to find out the underlying intrinsic factors that may be influencing students to participate in physical activities which included instructor’s personality, perceived competence and social relatedness. The first hypothesis which stated that instructor’s personality will not influence student’s participation in physical activities was rejected which implies that the teacher’s personality will have significant influence on the way students turned out to participate in physical activities and PE class. This finding was corroborated by Dean (2005) who submitted in his study conducted on students’ perception of PE teachers that majority of the students involved in his studies reported they were very adamant that attending PE class would be a negative experience if their teachers failed to care for them and that they feel less motivated to participate in physical activities due to the instructors uncared attitude. However, Julien, Philippe, Robert, David and Francis (2003) in their longitudinal research work on elementary school children’s perceived competence and physical activity involvement, submitted after the elongated study that was conducted among 152 French children at a two times over a twelve month period that the participants beliefs concerning their competence in physical activity determines the level at which they turned out to participate in physical activity. This supports the findings of this study on the rejected hypothesis that perceived competence will not have any influence on participation in physical activities among secondary school students, which implies that perceived competence have significant influence on students participation in physical activities. On social relatedness, the findings revealed that social relatedness have significant influence on students’ participation in physical activities. This was backed by Ryan and Deci (1985) who reported that for an individual to be intrinsically motivated in any activities there is need for a high level of social relatedness.

CONCLUSION
In line with the findings of this study, the following conclusion were drawn

- There was a significant influence of instructor’s personality on students participation in physical activity.
- There was a significant influence of self-competence on students participation in physical activity.
- There was a significant influence on social relatedness personality on students participation in physical activity.

RECOMMENDATION
- Based on the findings of this study, the following recommendations are made:
  - Physical activities’ instructor or teacher should appear neat and tidy whenever they go for any practical or theory class within and outside the school premises.
  - School administrators should ensure that students see physical education as funs by introducing an out of school activity were students can have their space to engage fully in physical activities thereby they will be more interested and happy to participate.
  - Suitable facilities and equipments should be made available to the students

REFERENCES


