

Analysis of enjoyment in physical activity among middle school children

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■ ABSTRACT

The aim of the study was to investigate the enjoyment and engagement in physical activity of students participating in Schools March Past and Mass display programme of LNUPE, Gwalior. The participants of the study were 131 students from Grade 6th (N=47), 7th (N=40), 8th (N= 44) aged 11 to 14 years. Physical activity engagement and enjoyment were assessed by self-report questionnaire. The mean and standard deviation of physical activity enjoyment of students of 6th, 7th and 8th grade students were 108.74 ± 11.18 , 107.70 ± 9.75 and 102.75 ± 11.16 , respectively. To compare the enjoyment of the physical activity among the students from different classes, one-way ANOVA was calculated and found significant at 0.05 level of significance. As the calculated 'F' value, 3.14, was greater than the tabulated value at 2 and 118 df, Scheffes post hoc test was conducted to find out the mean difference among the group. Results indicated that the level of enjoyment in physical activity of 8th grade was quite low than the others two.

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Enjoyment is act or state of enjoying, use or possession of something beneficial or pleasurable, something that gives pleasure (American Heritage® Dictionary, 2000). Enjoyment has been implicated as a determinant of physical activity among youth (Motl *et al.*, 2001). Physical activity has been defined as “any bodily movement produced by skeletal muscles that result in energy expenditure. “Physical fitness is “a set of attributes that people have or achieve that relates to the ability to perform physical activity” (Caspersen *et al.*, 1985). Sport commitment is influenced by enjoyment, involvement alternatives, personal investments, social constraints, and involvement opportunities (Weiss, 2000). It is also known that sports are an integral part of physical activity. Enjoyment of physical activity may have significant positive outcomes by facilitating continued involvement in activity (Wankel, 1993). Providing enjoyable experiences is a potent strategy for increasing activity levels in youth, their attitude about the value of exercise, and ultimately long-term health outcomes (Weiss, 1993). Enjoyment is both a predictor and outcome of physical activity participation (Dacey *et al.*, 2008). Expected

enjoyment from physical activities can increase exercise intentions (Ruby *et al.*, 2011), but middle school children enjoy physical activity or not, if the load of the children increases or maturity enhances.

Therefore, the purpose of the study is to see, whether the enjoyment in physical activity reduces in the higher grades as compare to the lower grades. The subordinate purpose of the study is to find out the enjoyment level of the students when the duration of the involvement in the activity increases.

■ METHODOLOGY

The subjects for the study were 131 students of 6th grade (N=47), 7th grade (N=40), 8th grade (N= 44) from various schools of Gwalior. These students were taught by LNUPE student teachers for Schools March Past and Mass display programme. All the students were successfully participating in regular exercises but the interest and enjoyment level of higher classes get reduced accordingly. For the purpose of the collection of the data the physical Activity Enjoyment Scale (PACES by

Kendzierski and DeCarlo) were used. PACES is a 18-items, self-administered scale, developed to measure the enjoyment toward exercise, but was modified to evaluate the enjoyment toward physical activity. Respondents were asked to rate their current feelings about physical activity using a seven-point semantic differential approach, as done in the original development of the scale and the scale was analyzed as a Likert scale. A total scale score was computed by summing responses to all items, so that a high score indicated high enjoyment, whereas a low score indicated little enjoyment.

The data were collected during regularly allotted PE classes to student teachers. The students responded to the instruments under the supervision of their student teacher and PE teacher. The researchers coordinated the testing sessions and recruited assistance from the student teachers as required. Participation in all areas of the data collection was voluntary. Students were informed that all data were confidential and would only be used by the researcher for the purposes of this study.

■ OBSERVATIONS AND DISCUSSION

The data collected were analyzed statistically and the outcome generated has been given below.

Table 1 shows the mean and standard deviation of all the three groups 6th, 7th and 8th grade students. All the students participating actively and regularly still the greater enjoyment

level was of class 6th (mean=108.7447, standard deviation =11.18514) then of class 7th (mean=107.7000, standard deviation = 9.75127) but the enjoyment level of class 8th was very low (mean=102.7500, standard deviation = 11.16291).

Analysis for variance (ANOVA) for the means of 6th, 7th and 8th grade enjoyment in physical activity has been shown in Table 2.

In Table 2, the analysis of variance (ANOVA) for the means of 6th, 7th, and 8th grade enjoyment in physical activity were calculated. It was seen that Tab F.05 (2 and 128) = 3.07 is less than the Cal value of F = 3.939. It is concluded that the evidence is sufficient to indicate a difference in enjoyment in physical activity among 6th, 7th and 8th grade children.

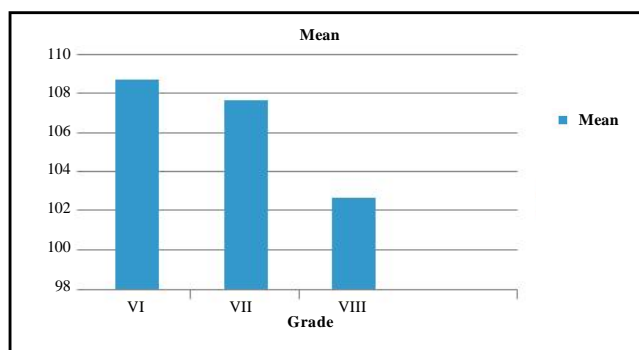


Fig. 1 : Enjoyment level between middle school classes

Table 1: Mean and standard deviation of 6th, 7th and 8th grade enjoyment in physical activity

Grade	N	Mean	Std. deviation	Minimum	Maximum
VI	47	108.7447	11.18514	83.00	126.00
VII	40	107.7000	9.75127	84.00	125.00
VIII	44	102.7500	11.16291	76.00	115.00
Total	131	106.4122	11.00131	76.00	126.00

Table 2: ANOVA for the means of 6th, 7th and 8th grade enjoyment in physical activity

Group	Sum of squares	d.f.	Mean square	F	Sig.
Between groups	912.154	2	456.077		
Within groups	14821.586	128	115.794	3.939*	.022
Total	15733.740	130			

Table 3: Multiple comparisons

(I) Classes	(J) Classes	Mean difference (I-J)	Std. error	Sig.
VI	VII	1.04468	2.31485	.903
	VIII	5.99468*	2.25729	.032
VII	VI	-1.04468	2.31485	.903
	VIII	4.95000	2.35085	.113
VIII	VI	-5.99468*	2.25729	.032
	VII	-4.95000	2.35085	.113

*indicates significance of value at P=0.05.



To further analyze as which group was enjoying more in physical activity, pairwise mean comparison analysis was done by using Scheffe's test (Table 3).

In Table 3, it is evident that there was a significant difference between mean enjoyment level of class VI and VIII, whereas there was no difference between class VI and VII and also between class VII and VIII. Thus, it may be concluded that enjoyment in physical activity was more in class VI and least in class VIII.

Mean difference between the subjects participated in the year 2010 and 2011 both with the subjects who only had participated in the year 2011 have been shown in Fig. 2.

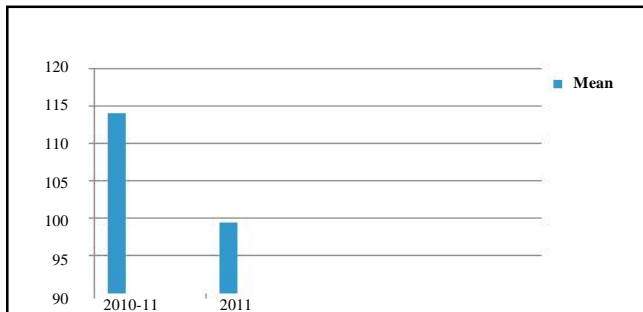


Fig. 2 : Mean difference between the subjects participated in the year 2010 and 2011 both with the subjects who only had participated in the year 2011

There was another result which came into an existence that out of 44 subjects of VIII class, 10 students had already done the participation in the previous year march-past and mass display competition. The enjoyment level of those participants was high who participated in the year 2010 and 2011 both as compared to the subjects who participate in the year 2011 only. Subjects who had participated in the both years their mean was 114 and the subjects who had participated in the year 2011 only their mean was 99.44 (Fig. 2).

The purpose of the study was to investigate the enjoyment level in physical activity in middle school classes *i.e.* VI, VII and VIII. The study revealed that there was a relation between enjoyments in physical activity with middle school class children. The result also illustrated that lower class *i.e.* VI got maximum enjoyment than classes VII and VIII. The enjoyment level of class VIII was very low comparatively to class VI and VII. It might be due to the maturity level of the children or type of activity *i.e.* march-past or mass display was not so enjoyfull for the class 8th student.

But it was also seen that if the duration of the activity increases, then the children of VIII class also enjoys the activity. Either due to improvement of skill level or might be due to familiar with the same type of environment. Similar results were also seen in the past studies (Carroll and Loumidis, 2001; McKenzie *et al.*, 2000; Poulsen and Ziviani, 2004).

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