

A Comparative Analysis of Teacher Behavior during Planned and Unplanned Physical Activity

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ABSTRACT

Keywords :

Introduction:

Several studies have been done to evaluate the physical activity of the students. Physical Education is a mandatory activity for everyone during the later ages, in which children exhibit a high level of susceptibility to abandoning physical activity. Therefore the PE Class is an attractive field for the analysis of Physical Activity-related variables such physical activity intentions. (Hein et al 2004, Sun & chen, 2010).

Whereas there has been a concise finding that the level of students is precisely higher during free-play activities. Improved Physical activity participation contributes to improvements in children's concentration and alertness with benefits for all aspects of the children's learning.

Provide children with time to explore, combine, select, and refine their movement competence and fundamental movement skills during this key development window children have to learn motor skills. Free choice is provided to the students so they participate in any game or activity according to their own will. When students move to independent practice, they attempt to integrate new content and skills into what they have previously learned until they become confident.

The study aimed to examine the planned teacher activity with the teacher as an instructor and the unplanned activity as participants continually note from observing teacher work.

The objective of the Study:

- To study through the physical activity level in the teacher role as instructor and while teacher role as a participant where students have a free choice to select an activity.
- To study the influence of training and participating in PE class to observe the participation level of students during structured and unstructured (free choice periods).

Methodology:**Subjects:****Population:**

- Students from 3rd and 4th grade of Maharashtra Mandal school

Sample:

- The Study represents a sample of 3rd and 4th-grade students for the study.
- The students of the present study are 30 students who are selected by cluster random sampling.

Table 1.1 :

	Population of class	Sample from class
Boys	58	22
Girls	40	8
Total	98	30

Sampling Technique:

- The population of the recent study will be 30 students of 3rd and 4th-grade classes from Maharashtra Mandal school.
- The researcher will employ the Cluster Random sampling technique.
- The Researcher will initially select the students from 3rd and 4th-grade classes who are from the athletics group.
- Thus making sure the students will be at most 30 individuals which will constitute the sample of the study.

Procedure :

- The target student is the major focus of the tool, however, the camera and audio will be mounted in a way where the teacher and the class will be observed or captured.
- Start the audio and video player to record until all students reach the instructional or playing area (i.e. inside the boundary) then record the start time of the lesson on the cover page.
 - Data will be representative of the whole class.
 - Student activity which involves the following variables.
 - Lying(1)
 - Sitting(2)
 - Standing(3)
 - Walking(4)
 - Vigorous(5)
- Lesson context which involves the following variables.

Table.1.2 :

General content (M)	Knowledge content (K)	Motor content
Transition	physical fitness	fitness (F)
Management	general knowledge	skill practice (S)
Break	rules, strategy	gameplay (G)
	social behaviour	other (O)
	Technique	

- Teacher involvement. (General: The Original Teacher Behavior Categories)
 - Choices: (**P**). promotes fitness (prompts, encourages, praises, etc.)
 - (**D**). demonstrates fitness (models)
 - (**I**) . instructs generally
 - (**M**). manages
 - (**O**). observes
 - (**T**). other-task

- Above all 3 phases will be observed throughout the 10 sec “observe” interval codes will be filled during the 10-sec interval “record”.
- Student 1 will be coded for 4 consecutive min(12 observations) This will focus on different target students every four min until the lesson ends.

Data Analysis:

1. Descriptive Analysis of Structured Data:

Table. 2..36 :

	Sitting	Standing	Walking	Vigorous Activity
Mean	7.83	27.25	11.13	26.25
Standard Error	3.58	2.75	3.46	2.91
Median	4.5	28	9	30.5
Mode	1	36	9	32
Standard Deviation	8.77	7.78	9.78	8.24
Sample Variance	76.97	60.5	95.55	67.93
Range	22	21	29	20
Minimum	1	15	1	13
Maximum	23	36	30	33
Sum	47	218	89	210
Count	6	8	8	8

	Promotes fitness	Demonstration	Instructing	Manages	Observation	Other task
Mean	5	8.75	32.38	6.67	21.38	2
Standard Error	1.37	1.35	2.90	1.87	3.05	0
Median	5	10.5	33	6	21.5	2
Mode		12	33	6		2
Standard Deviation	3.35	3.81	8.21	4.59	8.63	0

Sample Variance	11.2	14.5	67.41	21.07	74.55	0
Range	9	10	25	14	27	0
Minimum	1	2	18	1	10	2
Maximum	10	12	43	15	37	2
Sum	30	70	259	40	171	4
Count	6	8	8	6	8	2

2. Description:

- From the above Data researcher had understand that during Structured PE Lesson the Physical activity of the students as follows

Table 2.37 :

Type	Mean	Median	Mode
Sitting	8	5	1
Standing	27	3	36
Walking	11	3	9
Vigorous Activity	26	3	32

The researcher also came to know that the student's frequency of Sitting, Standing, and any Vigorous activity is known:

Table 2.38 :

Type	Min to max
Sitting	1 – 23
Standing	15 – 36
Walking	1 – 30
Vigorous Activity	13 – 33

- The researcher had understand the mean, median, and of mode the teacher interaction during the class which are as follows

Table 2..39 :

	Mean	Median	Mode
Promotes Fitness	5	5	-
Demonstrating	9	10	12
Instructing	32	33	33
Manages	7	6	6
Observation	21	21	-
Other Task	2	2	2

- The frequency of the teacher interaction during each structured class in average as follows:

Table.2.40 :

	Min to Max
Promotes Fitness	1 – 10
Demonstrating	2 -12
Instructing	18 – 43
Manages	1 -15
Observation	10 -37
Other Task	2 -2

From the above Descriptive statistical analysis we can state that on Average the structured Lesson Physical activity students of 3rd and 4th grade are mainly standing as well as performing vigorous activity followed by the teacher interaction teacher is involved in instructing and simultaneously observing the task of students. The range of physical activity in structured lessons exceeds from minimum 15 to 36 which is standing and performing vigorous activity between 13 to 33. Teacher Interaction during the class ranges from 18 to 43 maximum time in instructing as compared to various other tasks.

3. Descriptive Analysis of Unstructured Data:

Table.2..41 :

	Lying Down	Sitting	Standing	Walking	Running
Mean	9	9.5	38	6.5	19.86
Standard Error	8	4.37	5.22	2.03	4.69
Median	9	9.5	38	6	16
Mode				6	16
Standard Deviation	11.31	8.74	13.81	4.97	12.42
Sample Variance	128	76.33	190.67	24.7	154.14
Range	16	17	35	14	30
Minimum	1	1	21	2	8
Maximum	17	18	56	16	38
Sum	18	38	266	39	139
Count	2	4	7	6	7

	Promotes Fitness	Instructing	Manages	Observation	Other Task
Mean	16	5.75	4	62.14	3.57
Standard Error	0	1.31	0	3.92	0.65
Median	16	6.5	4	66	4
Mode				69	4
Standard Deviation		2.63		10.38	1.72
Sample Variance		6.92		107.81	2.95
Range	0	6	0	29	5
Minimum	16	2	4	40	1
Maximum	16	8	4	69	6
Sum	16	23	4	435	25
Count	1	4	1	7	7

4. Description:

- The researcher also gathered the data to understand the physical activity during the Unstructured PE lesson and their mean, median, and mode are as follows:

Table. 2..42 :

Type	Mean	Median	Mode
Lying Down	9	9	-
Sitting	9	9	-
Standing	38	38	-
Walking	6	6	6
Vigorous Activity	20	16	16

- The researcher also came to know that the student's frequency of Sitting, Standing and any Vigorous activity is known:

Table 2..43 :

	Type	Min to max
Lying Down	1-17	
Sitting		1-18
Standing	21-56	
Walking	2-16	
Vigorous Activity	8-38	

- The researcher had understood the mean, median, and of mode the teacher interaction during the class which are as follows

Table. 2..44 :

	Mean	Median	Mode
Promotes Fitness	16	16	-
Demonstrating	-	-	-
Instructing	6	6	-
Manages	4	4	-
Observation	62	66	69
Other Task	4	4	4

- The frequency of the teacher interaction during each structured class in average as follows:

Table. 2..45 :

	Min to Max
Promotes Fitness	16-16
Demonstrating	-
Instructing	2-8
Manages	4-4
Observation	40-69
Other Task	1-6

From the above Descriptive statistical analysis, we can state that on Average in the Unstructured Lesson Physical activity students of 3rd and 4th grade are mainly standing as well as performing vigorous activity followed by the teacher interaction teacher is involved in Observing task of students. Whereas the range of physical activity in structured lessons exceeds from minimum 21 to 56 which is standing and performing vigorous activity between 8 to 38. Teacher Interaction during the class ranges from 18 to 69 maximum time in instructing as compared to various other tasks.

Discussion:

In this research 30 Students of Maharashtra Mandal English School were involved in the 7 Structured and Unstructured PE lesson which were conducted 25 min each.

Thus to analyze the physical activity of the students SOFIT systematic observation tool was used from the above inferential statistical analysis researcher understand that Lying down, sitting, standing, walking and vigour's activity had not shown any significant difference at (0.005) sig.diff. Teacher Involvement were played vital role in influencing physical activity of the students in which promoting fitness, managing shows no significant difference whereas observing, instructing and other task showed the significant difference.

Various researcher like Chris Lonsdale, Megan, Frank, Charlotte, Thomas McKenzie have studied the physical activity level of school students and adolescents to find out physical activity level some researcher have suggested pedometer and accelerometer while some researcher used systematic observation technique.

Most researcher (Lonsdale, Megan, Frank, Charlotte) had studied the effect of structured PE lesson and leisure time/free play period on physical activity of students and adolescents. The researcher concluded that physical activity during structured activity were more during structured lesson than free play. But in this researcher study it doesn't show any significant difference between structured and unstructured Lesson. Studies also showed that teacher played a vital role in improving or enhancing the physical activity of the students.

From the above statistical analysis researcher concluded that Lying down, sitting, standing, walking and vigour's activity all this physical activity didn't showed difference between the structured and unstructured PE lesson but the teacher interaction in which observing, instructing and other task showed the significant difference but the promoting fitness and managing didn't showed any significant difference during structured and unstructured PE lesson.

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