


## RELATION BETWEEN MOTOR CREATIVITY AND ENJOYMENT OF ADOLESCENT GIRLS

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Adolescence is the period of transition between childhood and adulthood. Children who are entering adolescence are going through many changes (physical, intellectual, personality and social development). Motor creativity is a new ways of acting adaptive in new situations. Movement creativity is a key factor in motor development in children, yet very few exercise programs promote the development of motor creativity in children. Other side Enjoyment is the feeling of pleasure and satisfaction that you have when you do or experience something that you like. Participation in any kind of activity or games which are recreational in nature may lead to enjoyment and happiness which ultimately reflects in health. Enjoyment in any activity helps the children to engage in activity. The purpose of the study was to relation between Motor creativity and Enjoyment of the subjects. A total of 60 girls were selected randomly form Kakinada High School and their age ranged was 10+ to 12+ years. Motor Creativity test was used by standardized test and Enjoyment was measured by standardized questionnaire. The significance of co-relation of two means were tested. The results shown positive correlation between Item no. I and Enjoyment, Item no. III and Enjoyment, Item no. IV and Enjoyment. Inversely correlation between Item no. II and Enjoyment, Item no. V and Enjoyment. And positive correlation was also found between Sum of Motor Creativity and Enjoyment. From the above findings and discussion it may be concluded that. No significance difference found between Motor Creativity and Enjoyment of Adolescence Girls.

**Keywords:** Adolescence, Motor Creativity and Enjoyment

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Manuscript Received  
2023-02-14Review Round 1  
2023-03-15Review Round 2  
2023-03-29Review Round 3  
2023-04-04Accepted  
2023-04-17Conflict of Interest  
NILFunding  
NOEthical Approval  
YESPlagiarism X-checker  
17%

Note

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## Introduction

The child is born with some instincts and emotions. Every child is creative. Creativity is the ability to perceive the world in new ways, to find hidden patterns, to make connections between seemingly unrelated phenomena, and to generate solutions. Creativity involves two processes: thinking, then producing. *Motor creativity* is a new ways of acting adaptive in new situations. Movement creativity is a key factor in motor development in children, yet very few exercise programs promote the development of motor creativity in children. According to Sternberg, creativity has five components: expertise, imaginative thinking skills; a venturesome personality; intrinsic motivation; and a creative environment that sparks, supports, and refines creative ideas.

Other side Enjoyment is the feeling of pleasure and satisfaction that you have when you do or experience something that you like. Participation in any kind of activity or games which are recreational in nature may lead to enjoyment and happiness which ultimately reflects in health. Enjoyment in any activity helps the children to engage in activity. Enjoyment is an essential part of human life and finds many different forms which are shaped naturally interest but also surrounding social construction. People can enjoy anything whatever it is by reading a book, by doing creative activity or by playing sports.

Several studies have been conducted by different researchers in the related area and their study indicated the effects. With such background the investigator adopted the research project entitled "**Relation between Motor Creativity and Enjoyment of Adolescent Girls**".

## Purpose of the Study

Purpose of the study was:

01. To measure creative expression through motor movement of adolescence girls.
02. To measure the level of enjoyment among adolescence girls.
03. To compare the motor creativity and enjoyment of Adolescent girls.

## Methodology

In this research work the researcher adopted some

Methodology. This section contains the subject, selection of parameter, research procedure for collecting data and analytical procedure.

### **The Subjects:**

In the present study a total of 60 adolescent girl students were selected from Kakinada High School, Kakinara, North 24th Parganas, West Bengal as subjects. The age of the students were between 10+ to 12+ years.

### **Selection of Parameter:**

The investigator had gone through the analysis of Motor Creativity and Enjoyment after consulting the experts in these areas. Along with the literature and expert opinion, the administrative feasibility in terms of availability of instruments and expertise for measuring and recording of data was also given due consideration while selecting this test parameter. Motor Creativity and Enjoyment Test were tested for this study. In Motor Creativity Test there were five test items which is mentioned in the following table no-1.

*Enclosed as Annexure 01*

**Procedure for collection of data:** The procedure of Motor Creativity and Enjoyment are given in the following section.

**Motor Creativity Test:** The procedure of the test items are in the following section-

A modified Motor Creativity test battery with five test items was used. It was formed and standardized by Prof. A. K. Bhattacharyya following Wyrick Test of Motor Creativity. These tests were on motor activities, performance of which reflected creativity in motor domain.

**Purpose:** To measure creative expression through motor movements.

**Test Item No. - I (Different type of movements of the upper part of the body):**

**Instruction:** The subject asked to do different types of movement of the upper part of the body could be made while keeping the lower part of the body fixed? The time allowed for this test item was three minutes. An item was demonstrated so that one could understand easily.

**Scoring:** Each accepted movement obtained a credit mark of one. The total number

Of responses within the allotted three minutes was recorded as the motor creativity score from this test item.

**Test Item No. – II (Different ways one can move from line AB to CD):**

**Marking:** Two parallel lines were drawn on the floor maintaining a gap of ten feet.

**Instruction:** The subject was asked regarding how many different way, except walking (since walking was shown to the subject by the tester), could she move from the line AB to the CD within three minutes?

**Scoring:** One point for each accepted movement from the line AB to the CD line. Total number of successive accepted movements was the total score.

**Test Item No. – III (Different type of movements on the narrow bench):**

**Arrangement:** A narrow bench was set in such a way that when the subject stood on it, she will not get any support from anything else.

**Instruction:** While keeping balance on a narrow base (the bench in this case), the subject was asked to perform as many new movements as she could within three minutes. The movements which the subject had performed earlier would not come into account.

**Scoring:** Total number of new movements was counted by giving one mark for each accepted movement. Total number of such movements expressed motor creativity score for this item.

**Test Item No. – IV (Different ways hit the ball on the wall using any part of the body):**

**Marking:** A line (AB) was drawn eight feet apart from a wall where a target 'T' was drawn.

**Instruction:** The subjects were asked to hit the target 'T' from the line AB with a Tennis ball by using any part of her body in as many different ways as she could within three minutes.

**Scoring:** Each accepted way of hitting obtained one mark. Total number of accepted hits on the wall was the motor creativity score from this test item.

**Test Item No. – V (Different body movements from four different position):**

**Marking:** Four stations A, B, C and D were marked on the floor, and instructions were given about the exercises to be performed from the particular station.

Station A: Exercises from standing position.

Station B: Exercises from sitting position.

Station C: Exercises from supine position.

Station D: Exercises from prone position.

**Instruction:** The subject was asked to perform as many exercises as she could in all stations, maintaining the stated body position at the particular station, within five minutes. She could perform any number of exercises at any particular station and devote her own time at any station, but the total for this item should not exceed five minutes. However, after every one minute she would be orally indicated about time.

**Scoring:** The sum of the accepted responses obtained from all four positions was the motor creativity score from this test item.

Total score of motor creativity (Item no.-I to Item no.-V): Summation of scores obtained in all the five test items were the total score of motor creativity.

**Enjoyment:** On the testing day, researcher administered the questionnaires to students who were assembled in a classroom. All students were given uniform instructions. In this questionnaire the total 16 questions are there and against each question there are 5 options (1. Strongly Disagree, 2. Moderately disagree, 3. Slightly disagree, 4. Slightly agree, 5. Strongly Agree) and the subjects were instructed to give answer accordingly. They were given 40 minutes for the questionnaire.

**Statistical Procedure:**

After collecting the responses data were numerical values for statistical calculation for interpretation, analysis and discussion. Mean, Standard Deviation (SD) and correlation (r) were calculated for this research work.

**Result and Discussion**

In this section the collected data and their statistical analysis have been presented. The results obtained from statistical analysis of data and the discussions on the results have also been presented in this

Section. For this research work the personal information of adolescence girls are given in table-2

Table-2: Personal information of the subject

*Enclosed as Annexure 02*

In this table the Mean and SD of height and weight of the subjects were 144.63 cm  $\pm$ 8.27, 37.30 cm, and  $\pm$ 8.96 respectively. Maximum and Minimum value of the height, weight of the subjects were 162.5 cm, 126.0 cm and 70.0 kg, 24.0 kg respectively.

*The analysis of Motor Creativity of the subjects:*In this section the collected data and their statistical analysis have been presented sequentially in the following sections. The results obtained from statistical analysis of data and the discussions on the results have also been presented in this section. Mean, SD, Max and Min value of Motor Creativity and Enjoyment of adolescence girls are given in the following table 3.

Table - 3: Mean, SD, Maximum and Minimum value of Motor Creativity and Enjoyment

*Enclosed as Annexure 03*

Table no-3 represents the Mean, SD, Max, and Min of the Motor Creativity (Item no.-I to Item no.-V) and Enjoyment have been present sequentially.

The Mean, SD, Max and Min, value of Different type of movements of the upper part of the body of the subjects were 19.72,  $\pm$ 2.48, 23.0, and 12.0, respectively.

Different ways one can move from line AB to CD the Mean, SD Max and Min, value were 20.38,  $\pm$ 2.90, 25.0 and 10.0 respectively.

Other side the Different type of movements on the narrow bench the Mean, SD, Max and Min value were 15.41,  $\pm$ 4.07, 23.0 and 5.0, respectively.

Also the Mean, SD, Max and Min, value of Different ways hit the ball on the wall using any part of the body were 11.25,  $\pm$ 2.34, 19.0, 8.0, respectively.

Different body movements from four different position of this research work the Mean, SD, Max and Min value were 19.85,  $\pm$ 4.29, 30.0, 12.0 respectively.

The sum of Motor Creativity test the score of Mean, SD, Max and Min, were 86.66,  $\pm$ 9.29, 109.0 and 59.0 respectively.

On the other hand the Enjoyment of this research work the Mean, SD, Max and Min value were 55.25,  $\pm$ 5.96, 66.0 and 44.0 respectively.

### **Discussion and findings on Relation between Motor Creativity and Enjoyment:**

The results of the Motor Creativity and Enjoyment are discuss in the tables which are given below-

Table - 4: Relation between Item no-I and Enjoyment of the Subjects

*Enclosed as Annexure 04*

The table represents the correlation (r) between Item no-I and Enjoyment were 0.036 with positive correlation and no statistically significant difference is found. The p-value is 0.780, it means that the chance of type I error, rejecting a correct H<sub>0</sub>, is too high. The larger the p-value the more it supports H<sub>0</sub>.

Table-5: Relation between Item no-II and Enjoyment of the Subjects

*Enclosed as Annexure 05*

Table-5 represents the correlation between Item no. II and Enjoyment were 0.053 with inversely correlated and statistically no significant difference is found. The p-value is 0.684, it means that the chance of type I error, rejecting a correct H<sub>0</sub>, is too high, the larger the p-value the more it supports H<sub>0</sub>.

Table-6: Relation between Item no-III and Enjoyment of the Subjects

*Enclosed as Annexure 06*

This table represents the correlation between Item no. III and Enjoyment and the value is 0.178 with positive correlation and statistically no significant difference is found. The p-value is 0.171, it means that the chance of type I error, rejecting a correct H<sub>0</sub>, is too high. The larger the p-value the more it supports H<sub>0</sub>.

Table-7: The relation between Test Item No. -IV and Enjoyment of the Subjects

*Enclosed as Annexure 07*

This table represents the correlation between Item no. IV and Enjoyment were 0.202 with positive correlation and statistically no significant difference is found. The p-value is 0.121, it means

That the chance of type I error, rejecting a correct H0, is too high. The larger the p-value the more it supports H0.

Table-8: The relation between Test Item No. –Vand Enjoyment of the Subjects

*Enclosed as Annexure 08*

The table- 8 represents the correlation between Item no. V and Enjoyment were 0.216 with inversely correlation between and statistically no significant difference is found. The p-value equals 0.096, It means that the chance of type I error, rejecting a correct H0, is too high. The larger the p-value the more it supports H0.

Table-9: Relation between Motor Creativity and Enjoyment of the Subjects

*Enclosed as Annexure 09*

This table represents the correlation of Motor Creativity and Enjoyment were 0.022 with positive correlation and statistically no significant difference is found. The p-value equals 0.863, It means that the chance of type I error, rejecting a correct H0, is too high. The larger the p-value the more it supports H0.

It may be said that the non-significant result may be due to less number of sample and the standard deviations were much greater. Another reason may be due to sampling error.

### Conclusions

Within the limitation of the present study following conclusions were drawn on the basis of the results obtained by statistical analysis of the data.

01. Sometimes the creative expression through motor movement of adolescence girls were high and sometimes moderate.
02. At the same time the level of enjoyment among adolescence girls were found positive effect.
03. There were positive correlation between Different type of movements of the upper part of the body and Enjoyment of adolescence girls.
04. There were inversely correlated between Different ways one can move from line AB to CD and Enjoyment of adolescence girls.
05. There were positive correlation between Different type of movements on the narrow bench and Enjoyment of adolescence girls.

01. There were positive correlation between Different ways hit the ball on the wall using any part of the body and Enjoyment of adolescence girls.
02. There were negative correlation between Different body movements from four different position and Enjoyment of adolescence girls.
03. There were positive correlation between Sum of Motor Creativity and Enjoyment of adolescence girls.

From the above findings and discussions it may be concluded that there were positive and inversely correlated between Enjoyment and Motor Creativity of adolescence girls.

### Annexure

#### *Annexure 01*

*Table no-1*

Variable	Parameter	Test Items
Motor Creativity (by Wyrick)	Creative expression	1. Test Item no- I(Different type of movements of the upper part of the body)
		2. Test Item no- II(Different ways one can move from line AB to CD)
		3. Test Item no- III(Different type of movements on the narrow bench)
		4. Test Item no- IV(Different way hit the ball on the wall using any part of the body)
		5. Test Item no- V(Different body movements from four different position)
Psychological Test	Enjoyment	Moor et. al Questionnaire (Total 16 questions)

#### *Annexure 02*

*Table-2: Personal information of the subject*

Personal Variables	Mean	SD	Max	Min
Height (cm)	144.63	±8.27	162.5	126.0
Weight (kg)	37.30	±8.96	70.0	24.0

#### *Annexure 03*

*Table – 3: Mean, SD, Maximum and Minimum value of Motor Creativity and Enjoyment*

Test Items	Mean & SD (number)	Max (number)	Min (number)
Item no.-I (Different type of movements of the upper part of the body)	19.72, ±2.48	23.0	12.0
Item no. II (Different ways one can move from line AB to CD)	20.38, ±2.90	25.0	10.0
Item no.-III (Different type of body movements on the narrow bench)	15.41, ±4.07	23.0	5.0
Item no.-IV (Different ways one can hit the ball on the wall using any part of the body)	11.25, ±2.34	19.0	8.0
Item no.-V (Different body movements from four different position)	19.85, ±4.29	30.0	12.0
Motor Creativity as a whole	86.66, ±9.29	109.0	59.0
Enjoyment (score)	55.25, ±5.96	66.0	44.0

Annexure 04

Table - 4: Relation between Item no-I and Enjoyment of the Subjects

Test Items	Mean & SD	r- value	p- value
Item no. I (number)	19.72, ±2.48	0.036	0.780
Enjoyment (score)	55.25, ±5.96		

\*The significant at 0.05 level

Annexure 05

Table-5: Relation between Item no-II and Enjoyment of the Subjects

Test Items	Mean & SD	r- value	p- value
Item no. II (number)	20.38, ±2.90	0.053	0.684
Enjoyment (score)	55.25, ±5.96		

\*The significant at 0.05 level

Annexure 06

Table-6: Relation between Item no-III and Enjoyment of the Subjects

Test Items	Mean & SD	r- value	p- value
Item no. III (number)	15.41, ±4.07	0.178	0.171
Enjoyment (score)	55.25, ±5.96		

\*The significant at 0.05 level

Annexure 07

Table-7: The relation between Test Item No. -IV and Enjoyment of the Subjects

Test Items	Mean & SD	r- value	p- value
Item no. IV (number)	11.25, ±2.34	0.202	0.121
Enjoyment (score)	55.25, ±5.96		

\*The significant at 0.05 level

Annexure 08

Table-8: The relation between Test Item No. -V and Enjoyment of the Subjects

Test Items	Mean & SD	r- value	p- value
Item no. V (number)	19.85, ±4.29	0.216	0.096
Enjoyment (score)	55.25, ±5.96		

\*The significant at 0.05 level

Annexure 09

Table-9: Relation between Motor Creativity and Enjoyment of the Subjects

Test Items	Mean & SD	r- value	p- value
Motor Creativity as a whole (number)	86.66, ±9.29	0.022	0.863
Enjoyment (score)	55.25, ±5.96		

\*The significant at 0.05 level

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