A STUDY ON THE COMPARISON BETWEEN MULTIPLE INTELLIGENCE AND ACHIEVEMENT MOTIVATION OF SECONDARY SCHOOL PUPILS OF KERALA

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Abstract

This study is intended to compare multiple intelligence and achievement motivation of secondary school students of Kerala. Here the investigator Compare each component of Multiple Intelligence and Multiple Intelligence (Total) of Pupils taken in pairs on the basis of different levels(High-Average, Average-Low, High-Low) of Achievement Motivation.

Key Words   : Multiple Intelligence ,Achievement motivation

Introduction

Indian education is dictated by the student's scores on a battery of intelligence tests, from kindergarten to university. Against this long - lived convention, though many researches, educators, even parents, have expressed reservations that such tests do nothing to judge student's potential – they merely demonstrate that a child is or is not good at standardized tests. Students should not be judged by what they cannot do, but what they can do, and education should focus on bringing out the individual's potential. Until recently, this view was considered utopian and unrealistic, but now a new theory of learning and intelligence has finally forced educators and policy makers to reconsider the pedagogical methods of the last century, the theory of Multiple Intelligence**.**

In the heyday of the psychometric and behaviourist eras, it was generally believed that intelligence was a single entity that was inherited; and that human beings initially a blank slate – could be trained to learn anything, provided that it was presented in an appropriate way. Nowadays an increasing number of researchers believe precisely the opposite; that there exists a multitude of intelligences, quite independent of each other; each intelligence has its own strengths and constraints; mind is far from unencumbered at birth; and it is unexpectedly difficult to teach things that go against early 'naïve' theories that challenge the natural lines of force within an intelligence and its matching domains. (Gardner 1993).

In studies of cognitive abilities such as memory, perception, or attention we can see evidence that individuals possess selective abilities. Certain individuals, for instances, may have a superior memory for words but not for faces; others may have acute perception of musical sounds but not verbal sounds. Each of these cognitive faculties is intelligence specific, that is, people can demonstrate different levels of proficiency across the eight intelligences in each cognitive area.

Most of the studies regarding Multiple Intelligence were conducted abroad and a remarkable impact on students was found. Since very little studies were conducted in Kerala regarding Multiple Intelligence the investigator wishes to know how Multiple Intelligence theory works in Kerala's educational structure. Learning is the modification of behavior of an individual. The cognitive, affective as well as the psycho motor domain of the individuals are modified. In the Kerala Curriculum Frame work (2007) the importance of implementing Multiple Intelligence theory in classrooms has been mentioned. In the global scenario young learners of today should be competent to face the challenges. This is possible only if they are catered accordingly. Though we give importance to constructivist approach it is very doubtful that the area of Multiple Intelligence is given due weightage. In the present educational scenario the personality traits of learners need to be addressed effectively. Studies show that Multiple Intelligence has an impact on the developmental traits of an individual. The investigator wishes to know whether the application of Multiple Intelligence theory in our classroom has an impact on the achievement motivation of the individuals. Achievement Motivation may be characterized as the tendency to maintain and increase individual proficiency in all areas in which a standard of quality is

taken as binding .In the present study the investigator wishes to find out the relationship between Multiple Intelligence and achievement motivation of secondary school students in Kerala.

STATEMENT OF THE PROBLEM

The present study is entitled as **"A STUDY ON THE COMPARISON BETWEEN MULTIPLE INTELLIGENCE AND ACHIEVEMENT MOTIVATION OF SECONDARY SCHOOL STUDENTS IN KERALA"**

HYPOTHESIS

There will be significant difference in each component of Multiple Intelligence and Multiple Intelligence (Total) of secondary school pupils taken in pairs (High Average ,Average-Low ,High-Low) in terms of their achievement motivation.

OBJECTIVE OF THE STUDY

To find out the difference between Multiple Intelligence and Multiple Intelligence (Total) of secondary school pupils taken in pairs (High-Average, Average-Low,High-Low) on the basis of their achievement motivation.

METHODOLOGY

The method adopted for the present study was Normative Survey method. A sample of 894 secondary school pupil was taken using stratified random sampling technique.

VARIABLES OF THE STUDY

The study has been designed with Multiple Intelligences as dependent variable and achievement motivation as independent variable

1. **Multiple Intelligence Variables**

Verbal/Linguistic Intelligence , Logical/Mathematical Intelligence ,Musical/Rhythmic Intelligence,Visual/SpatialIntelligence,Bodily/KinestheticIntelligence,,InterpersonalIntelligence,IntrapersonalIntelligence,Naturalistic Intelligence ,Multiple Intelligence (Total)

2. **Achievement Motivation**

TOOLS USED FOR THE PRESENT STUDY

1. A Comprehensive Test of Multiple Intelligence for Secondary School Pupil.

2. Kerala Scale of Achievement Motivation

STATISTICAL TECHNIQUE EMPLOYED

Two-tailed test of significance for difference between means of large independent sample for comparison of groups.

ANALYSIS AND INTERPRETATION

Comparison of each component of Multiple Intelligence and Multiple Intelligence (Total) of pupils belonging to different levels of achievement motivation taken in pairs is studied. The comparisons of scores on components of Multiple Intelligence and Multiple Intelligence (Total) are made using two tailed test of significance.

Comparison of each component of Multiple Intelligence and Multiple Intelligence (Total) of pupils taken in pairs on the basis of different levels of Achievement Motivation

Each component of Multiple Intelligences and Multiple Intelligence (Total) of pupils taken in pairs on the basis of different levels of Achievement Motivation are compared .The pupils were classified as high, average, low on the basis of the total score obtained for Achievement Motivation. Here the mean score of Achievement Motivation for the Total sample is 33.29 and standard deviation is 16.4. Pupils whose score greater than 42 for Achievement Motivation were classified as pupils belonging to high Achievement Motivation and those who scored less than 25 were classified as pupils belonging to low Achievement Motivation. Pupils whose Achievement Motivation score lies between 25 and 42 both inclusive were classified as pupils belonging to average Achievement Motivation.

Comparison of each component of Multiple Intelligence and Multiple Intelligence (Total) of Pupils belonging to Low and Average Achievement Motivation

Mean scores of each component of Multiple Intelligence and Multiple Intelligence (Total) of pupils belonging to low and average Achievement Motivation were compared using two-tailed test of significance.

Data and results of test of significance of pupils belonging to low and average Achievement Motivation with respect to each component of Multiple Intelligence and Multiple Intelligence (Total) are given in Table 1.

Table 1

Statistical data and Results of Test of Significance of Means Score of each component of Multiple Intelligence and Multiple Intelligence (Total) of Pupils belonging to having Low and Average Achievement Motivation

Multiple Intelligence Variables	Achievement Motivation				Critical Ratio
	Low		Average		
	Mean	SD	Mean	SD	
1.Verbal/ Linguistic Intelligence	11.32	4.03	17.22	5.76	13.52**
2.Logical/ Mathematical Intelligence	10.31	4.62	15.23	4.45	13.24**
3.Interpersonal Intelligence	11.15	4.50	17.69	10.15	8.97**
4.Intrapersonal Intelligence	10.49	4.11	15.90	5.99	11.95**
5.Visual/Spatial Intelligence	10.88	4.34	14.56	4.63	9.82**
6.Musical Intelligence	11.89	4.68	17.19	5.75	11.77**
7.Naturalistic Intelligence	12.48	4.93	17.90	4.56	14.05**
8.Bodily/ Kinesthetic Intelligence	13.76	8.08	18.45	4.48	9.79**
9.Multiple Intelligence Total	92.28	21.32	134.14	25.91	20.61**
N = 211			N = 489		

** Significant at 0.01 level

It is seen from the Table 5.2 that each of the component of Multiple Intelligence and Multiple Intelligence (Total) of pupils belonging to low and average Achievement Motivation differ significantly at 0.01 level. This indicates that pupils belonging to low and average Achievement Motivation can be discriminated on the basis of their components of Multiple Intelligence and Multiple Intelligence (Total).

The discriminating variables in the order of importance (in the descending order of the absolute value of critical ratio) are:

Multiple Intelligence (Total)   (CR=20.61)

Naturalistic Intelligence   (CR=14.05)

Verbal/Linguistic Intelligence   (CR=13.52)

Logical /Mathematical Intelligence   (CR=13.24)

Intrapersonal Intelligence   (CR=11.95)

Musical Intelligence   (CR= 11.77)

Visual/Spatial Intelligence   (CR=9.82)

Bodily/ Kinesthetic Intelligence   (CR=9.79)

Interpersonal Intelligence   (CR=8.97)

Comparison of each component of Multiple Intelligence and Multiple Intelligence (Total) of pupils belonging to High and Low Achievement Motivation

The statistical indices and the results of the test of significance of the eight components of Multiple Intelligence and Multiple Intelligence (Total) of pupils belonging to high and low Achievement Motivation are presented in Table 2 .it can be seen that all the components of Multiple Intelligence and Multiple Intelligence (Total) are capable of discriminating between pupils belonging to high and low Achievement Motivation at 0.01 level of significance.

The variables in the order of importance are:

Multiple Intelligence (Total)　　　　　(CR=33.11)

Verbal/ Linguistic Intelligence　　　　(CR=27.34)

Interpersonal Intelligence　　　　　　(CR=26.31)

Intrapersonal Intelligence　　　　　　(CR=25.21)

Logical/ Mathematical Intelligence　　(CR=24.00)

Visual/Spatial Intelligence　　　　　　(CR=23.32)

Musical Intelligence　　　　　　　　　(CR=19.73)

Naturalistic Intelligence　　　　　　　(CR=19.26)

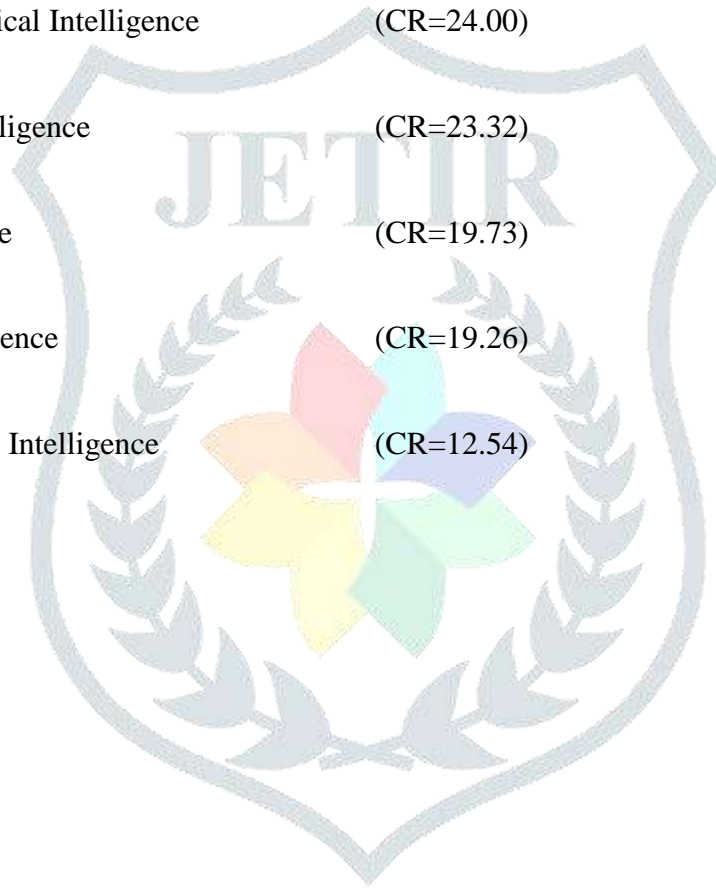Bodily/ Kinesthetic Intelligence　　　　(CR=12.54)

Table 2

Statistical data and Result of Test of Significance of Means Score of each component of Multiple Intelligence and Multiple Intelligence (Total) of Pupils belonging to High and Low Achievement Motivation
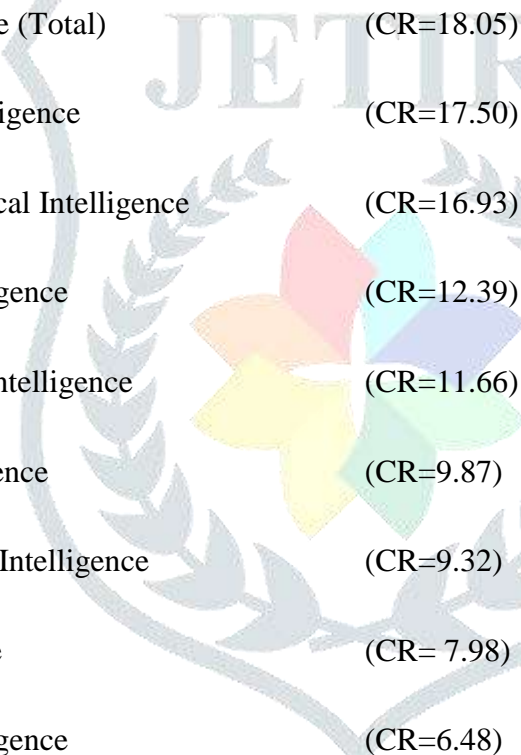
Multiple Intelligence Variables	Achievement Motivation				Critical Ratio
	High		Low		
	Mean	SD	Mean	SD	
1.Verbal/ Linguistic Intelligence	22.54	4.21	11.32	4.03	27.34**
2.Logical/ Mathematical Intelligence	21.89	5.06	10.31	4.62	24.00**
3.Interpersonal Intelligence	22.57	4.19	11.15	4.50	26.31**
4.Intrapersonal Intelligence	21.93	4.99	10.49	4.11	25.21**
5.Visual/Spatial Intelligence	21.53	4.83	10.88	4.34	23.32**
6.Musical Intelligence	20.86	4.43	11.89	4.68	19.73**
7.Naturalistic Intelligence	21.77	4.73	12.48	4.93	19.26**
8.Bodily/ Kinesthetic Intelligence	21.96	4.33	13.76	8.08	12.54**
9.Multiple Intelligence Total	175.11	28.63	92.28	21.32	33.11**
N = 194			N = 211		

** Significant at 0.01 level

Comparison of each component of Multiple Intelligence and Multiple Intelligence (Total) of Pupils belonging to High and Average Achievement Motivation

The statistical indices and the results of the tests of significance of the eight components of Multiple Intelligence and Multiple Intelligence (Total) of pupils belonging to high and average Achievement Motivation are presented in Table 3. Each component of Multiple Intelligence and Multiple Intelligence (Total) of pupils belonging to high and average Achievement Motivation differ significantly at 0.01 level.

The discriminating variables in the order of importance (in the descending order of the absolute value of critical ratio) are:

Multiple Intelligence (Total)	(CR=18.05)
Visual/Spatial Intelligence	(CR=17.50)
Logical/ Mathematical Intelligence	(CR=16.93)
Intrapersonal Intelligence	(CR=12.39)
Verbal/ Linguistic Intelligence	(CR=11.66)
Naturalistic Intelligence	(CR=9.87)
Bodily/ Kinesthetic Intelligence	(CR=9.32)
Musical Intelligence	(CR= 7.98)
Interpersonal Intelligence	(CR=6.48)

Table 3

Statistical data and Result of Test of Significance of Means Score of each component of Multiple Intelligence and Multiple Intelligence (Total) of Pupils belonging to High and Average Achievement Motivation

Multiple Intelligence Variables	Achievement Motivation				Critical Ratio
	High		Average		
	Mean	SD	Mean	SD	
1.Verbal/ Linguistic Intelligence	22.54	4.21	17.22	5.76	11.66**
2.Logical/ Mathematical Intelligence	21.89	5.06	15.23	4.45	16.93**
3.Interpersonal Intelligence	22.57	4.19	17.69	10.15	6.48**
4.Intrapersonal Intelligence	21.93	4.99	15.90	5.99	12.39**
5.Visual/Spatial Intelligence	21.53	4.83	14.56	4.63	17.50**
6.Musical Intelligence	20.86	4.43	17.19	5.75	7.98**
7.Naturalistic Intelligence	21.77	4.73	17.90	4.56	9.87**
8.Bodily/ Kinesthetic Intelligence	21.96	4.33	18.45	4.48	9.32**
9.Multiple Intelligence Total	175.11	28.63	134.14	25.91	18.05**
N = 194			N = 489		

** Significant at 0.01level

Findings

The study shows that there exists significant difference in Multiple among students with high and average achievement motivation. Students with high achievement motivation have more Multiple Intelligence than that of students with average achievement motivation .

There exists significant difference in Multiple Intelligence between students with high and low achievement motivation. Students with high achievement motivation have more Multiple Intelligence than students with low achievement motivation.

The result shows that there exists significant difference in Multiple Intelligence between the students with average and low achievement motivation. Students with average achievement motivation have more Multiple Intelligence than Students with low achievement mptivation.

Conclusion

The study shows that significant difference occur between Multiple Intelligences and different levels of achievement motivation taken in pairs of the whole sample. This point out the necessity of improving Multiple Intelligences of students for improving their achievement motivation. As children are the buds of today and the flowers of tomorrow it is very necessary to uplift their achievement motivation for that teachers should give importance in moulding their Multiple Intelligence..

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