

RELATIONSHIP BETWEEN EIGHTH GRADE STUDENTS' SELF PERCEIVED MULTIPLE INTELLIGENCES AND THEIR ACADEMIC ACHIEVEMENT

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ABSTRACT

The present study was conducted with the aim of investigating the relationship between eighth grade students' self perceived Multiple Intelligences and their academic achievement. The study revealed that significant correlation was found between self perceived Verbal, Logical, Interpersonal, Intrapersonal, Naturalistic Intelligence and eighth grade students' Academic Achievement. There was no significant correlation found between self perceived Musical Intelligence and Academic Achievement. The result also indicated that there exists very weak relationship between self perceived Bodily-Kinesthetic Intelligence and eighth grade students' Academic Achievement. These findings shed new light on the application of Multiple Intelligence and, given the growth in its use, provide a much needed comparison for those interested in implementing it as one component of educational reform.

Keywords

Multiple Intelligence, cognitive profile, intelligence, academic achievement

INTRODUCTION

Multiple intelligence is a psychological and educational theory put forth by psychologist Howard Gardner, which suggests that an array of different kinds of "intelligence" exists in human beings. Gardner suggests that each individual manifests varying levels of these different intelligences, and thus each person has a unique "cognitive profile." The theory was first laid out in Gardner's 1983 book, "Frames of Mind": the Theory of Multiple Intelligences, and has been further refined in subsequent years.

The theory was proposed in the context of debates about the concept of intelligence, and whether methods which claim to measure intelligence (or aspects thereof) are truly scientific. Gardner's theory argues that intelligence, as it is traditionally defined, does not adequately encompass the wide variety of abilities humans display. In his conception, a child who masters the multiplication table easily is not necessarily more intelligent overall than a child who struggles to do so. The second child may be stronger in another kind of intelligence, and therefore may best learn the given material

through a different approach, or may excel in a field outside of mathematics. The theory suggests that, rather than relying on a uniform curriculum, schools should offer "individual-centered education", with curricula tailored to the needs of each child. (This includes working to help students develop the intelligences they are weaker in.)

Gardner identifies intelligences based upon a range of factors and criteria, including: case studies of individuals exhibiting unusual talents in a given field (child prodigies, autistic savants); neurological evidence for areas of the brain that are specialized for particular capacities (often including studies of people who have suffered brain damage affecting a specific capacity); the evolutionary relevance of the various capacities; psychometric studies; and a symbolic formulation of the area treated by each proposed intelligence. He originally identified seven core intelligences: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, and intrapersonal. In 1999 he added an eighth, the naturalistic intelligence, and indicated that work continues on whether there is an existential intelligence.

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NEED AND IMPORTANCE OF THE STUDY

A person learns best when taught in the way he or she can best perceive the things to be learnt. The educational institutions must give attention towards recognizing the dominant Multiple Intelligence of students before planning the educational activities. A person can be most successful in a profession when the profession is according to his or her abilities and interests. So this is the time when people should recognize their strong multiple intelligence to learn new things in his or her own way and pursue interest and choose future profession which requires that particular intelligence. Understanding of multiple intelligences and the type of relationship between multiple intelligences and students academic achievement provides us with opportunities to look differently at the students' instruction, curriculum, and assessment.

REVIEW OF RELATED LITERATURE

Researchers have different claims and opinions about the relationship of different intelligences with students' academic achievement. Some researches have explored in undergraduate students' intelligence and gender as foretoken of academic achievement (Habibollah, Rohani, Tengku & Jamaluddin, 2008). Some psychologists are of the opinion that there exists a close interconnection between intelligence and academic achievements. Some say that there is a cause and effect association between intelligence and academic achievement. Laidra, Pullmann & Allik (2007) found that through all grade levels students' academic achievement is dependent on their intellectual capacities.

OBJECTIVES OF THE STUDY

1. To discover the relationship between eighth grade students self perceived multiple intelligences and their academic achievement.
2. To offer strategies to foster multiple intelligences in the light of findings of the study.

HYPOTHESIS OF THE STUDY

There is no significant relationship between eighth grade students self perceived multiple intelligences and their academic achievement.

**METHODOLOGY AND PROCEDURE
SAMPLE**

The population for the present study consists of 8th standard students enrolled in the secondary schools of Bangalore city. A sample of 600 students was involved by using "random sampling procedure" which would be able to have a true representation of the population.

TOOL

Multiple intelligence inventory based on Howard Gardner multiple intelligences theory, developed by Armstrong (1994) containing 40 items, 5 items for each intelligence, on Likert scale was used to measure students self perceived multiple intelligences. Academic achievements of the students were obtained from their detail marks scored in the half yearly examination.

DATA ANALYSIS

Multiple intelligences and academic achievement scores were correlated using Pearson Product Moment Correlation.

Table 1.

Correlation between eighth grade students' self perceived multiple intelligences and their academic achievement

| Sl.No. | Type of Intelligence | r | p |
|--------|------------------------------------|-----|------|
| 1 | Verbal /Linguistic Intelligence | .27 | .00* |
| 2 | Logical /mathematical Intelligence | .42 | .00* |
| 3 | Visual- spatial Intelligence | .19 | .00* |
| 4 | Musical Intelligence | .05 | .14 |
| 5 | Bodily-Kinesthetic Intelligence | .07 | .04 |
| 6 | Interpersonal Intelligence | .14 | .00* |
| 7 | Intrapersonal Intelligence | .17 | .00* |
| 8 | Naturalistic Intelligence | .19 | .00* |

*Correlation is significant at α 0.01 level. The table value shows that the coefficient of correlation between self perceived verbal/ linguistic intelligence and academic achievement is $r = .27$ and p value = 0.00 at α 0.01 level. The value of r and p shows that there is a significant

positive correlation between self perceived verbal/linguistic intelligence and academic achievement of the students.

The coefficient of correlation between self perceived logical/mathematical intelligence and academic achievement is $r = .42$ and p value = 0.00 at $\alpha 0.01$ level. The value of r and p shows that there is a significant positive correlation between self perceived logical/mathematical intelligence and academic achievement of the students.

The coefficient of correlation between self perceived visual/spatial intelligence and academic achievement is $r = .19$ and p value = 0.00 at $\alpha 0.01$ level. The value of r and p shows that there is a significant positive correlation between self perceived visual/spatial intelligence and academic achievement of the students.

The coefficient of correlation between perceived musical intelligence and academic achievement is $r = .05$ and p value = $.14$ at $\alpha 0.01$ level. The value of r and p shows that there is insignificant positive correlation between self perceived musical intelligence and academic achievement of the students.

The coefficient of correlation between self perceived bodily/kinesthetic intelligence and academic achievement is $r = .07$ and p value = $.04$ at $\alpha 0.01$ level. The value of r and p shows that there is insignificant positive correlation between self perceived bodily/kinesthetic intelligence and academic achievement of the students.

The coefficient of correlation between self perceived interpersonal intelligence and academic achievement is $r = .14$ and p value = $.00$ at $\alpha 0.01$ level. The value of r and p shows that there is a significant positive correlation between self perceived interpersonal intelligence and academic achievement of the students.

The coefficient of correlation between self perceived intrapersonal intelligence and academic achievement is $r = .17$ and p value = $.00$ at $\alpha 0.01$ level. The value of r and p shows that there is a significant positive correlation between self perceived intrapersonal intelligence and academic achievement of the students.

The coefficient of correlation between self perceived naturalistic intelligence and academic achievement is $r = .19$ and p value = $.00$ at $\alpha 0.01$ level. The value of r and p shows that there is a significant positive correlation between perceived naturalistic intelligence and academic achievement of the students.

CONCLUSIONS

1. There is a significant positive correlation between perceived linguistic intelligence and academic achievement of the students.
2. There is a significant positive correlation between perceived logical/mathematical intelligence and academic achievement of the students.
3. There is a significant positive correlation between perceived visual/spatial intelligence and academic achievement of the students.
4. There is no significant positive correlation between perceived musical intelligence and academic achievement of the students. It can also be inferred that this correlation is very weak.
5. There is no significant positive correlation between perceived bodily/ kinesthetic intelligence and academic achievement of the students. It can also be inferred that this correlation is very weak.
6. There is a significant positive correlation between perceived interpersonal intelligence and academic achievement of the students. It can also be inferred that this correlation is not strong.
7. There is a significant positive correlation between perceived intrapersonal intelligence and academic achievement of the students. It can also be inferred that this correlation is not very strong.
8. There is a significant positive correlation between perceived naturalistic intelligence and academic achievement of the students. It can also be inferred that this correlation is not very strong.

RECOMMENDATIONS

- 1 Teacher should plan in a way which can involve as many of the intelligences as possible because verbal/linguistic, logical/mathematical, visual/spatial, interpersonal, intrapersonal and naturalistic intelligence contributes to the students achievements.
- 2 Studentscentered approach should be used in teaching because it allows students actively use their varied forms of intelligence.
- 3 All types of intelligences of both male and female equally may be celebrated.
- 4 Teachers should allow considerable elements of students' choice when designing activities and tasks for the intelligences because students perform well in the tasks which appeal to their interests.
- 5 Multiple intelligences based curriculums should be developed for students because it proves better for the students than any other type of curriculum.

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