RESEARCH ARTICLE

JTER Volume 16, Issue 2, 2021 Print ISSN: 0974-8210 Online ISSN: 2454-1664

A Comparative Study of Multiple Intelligence of Government and Private Secondary School Students

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Abstract

The present study was undertaken to compare multiple intelligence of Government and Private Secondary School Students. Multiple—Intelligence is both innate and acquired mental abilities that human beings use and develop through education. They are combination of physical, biological and social domain. Descriptive Survey method was used in this study with the sample of 50 boys and 50 girls in secondary school. Howard Gardner's Multiple Intelligence Test (1983) was used for data collection. It was found that there is significant difference between the secondary school students of Government and Private. So, we can say that multiple intelligence of Government and private secondary school students differ significantly. It was also inferred that the Linguistic/verbal intelligence of girls is higher than boys. The Logical/Mathematical intelligence of boys was greater than girls where Musical intelligence of girls is greater than boys. The spatial and kinesthetic intelligence of boys was greater than girls. Intrapersonal and interpersonal intelligence of girls were greater than boys, whereas existential intelligence of boys and girls is equal.

Keywords: Government and Private, Multiple Intelligence, Secondary School Students.

Journal of Teacher Education and Research (2021). DOI: 10.36268/JTER/16205

Introduction

All human beings have different abilities from birth, and every child has unique properties. Until 1940s, as Rogers stated, children are meritorious because of their inner potentials, creativity power to learn, ability to learn languages, and potential to use brain (Akboy, 2004, Akboy & Ikiz, 2007). How children perceive themselves and their educational experiences establish their self-concept and before the development of self-efficiency successful transition from childhood to adolescence partially depends upon the academic preparation and the motivation of students and school's effectiveness in helping the students acquire life survival skills. Since every individual has a unique set of experiences, various responses to any given stimulus are possible. Learning is essentially an active process that the perceiver's attention, curiosity, and interest often increase. Therefore, provision for individual differences in learning iscrucial (Fraenkel, 1994). Students' special academic and personal characteristics and how these characters encouraged them to construct meaning for themselves. Since, the teacher should move from knowledge dispensers roles of to the learning facilitators role (Gullatt, 2008).

Thus, without sensation and emotion, logic may not be possible for some researchers. It is supported that the arts may be used as a means of making meaning of what is learned and to synthesize what had been thought in schools (Gullatt 2008; Eisner, 1998; April 2001), arts subjects are great potential partners in academic learning, arts have impact upon numerous social and cognitive dimensions across many academic disciplines (Gouzouasis *et al*., 2007). It is explained that there is a relationship between spatial and logical mathematical intelligence, as Gullat (2008) indicates, and a strong relationship between spatial and musical intelligence, besides the literature. It is emphasized that to make literature meaningful, students must be given aesthetic opportunities; their comprehension of text was increased and motivation for reading was enhanced.

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How to cite this article: Parasher, M. (2021). A Comparative Study of Multiple Intelligence of Government and Private Secondary School Students. Journal of Teacher Education and Research, 16(2): 21-24.

Source of support: Nil

Conflict of interest: None

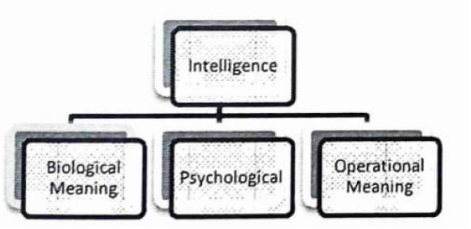
Meaning of Intelligence

Intelligence is a term describing one or more capacities of the mind. This can be defined differently in different contexts, including the capacities for abstract thought, understanding, communication, reasoning, learning, planning, emotional intelligence, and problem-solving.

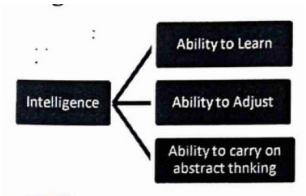
Intelligence is most widely studied in humans but is also observed in animals and plants. Artificial intelligence is the intelligence of machines or the simulation of intelligence in machines.

From the Indian Dictionary the meaning of intelligence is: "The capacity to accumulate the knowledge and put into use".

According to Vernon there are three Meaning of Intelligence



According to Freeman's Classification, the Meaning of Intelligence is



According to Gates & others, "A composite or organization of abilities to learn, to grasp broad and subtle facts, especially abstract facts, with alertness and accuracy, to exercise mental control, and to display flexibility and ingenuity in speaking the solution of problem."

Dr. S.P. Kulshrestha (1995) tried to define intelligence by assigning a definite meaning of each letter of the term as follow:

I = Initiate taking ability
N = Numerical ability
T = Transfer of knowledge, attitude & skill
E = Environmental adjustment & adaptation ability
L = Language ability
I = Implication (ability to point out various possibilities existing in a situation)
G = Global, ideal and purposeful attempts
E = Effective management
N = Knowledge of contents expressed meaningfully
C = Creative approach to some extent (carry out abstract ability)
E = Evaluation (taking decision & making sound judgment)\

MultipleIntelligence

Howard Gardner, a psychologist in Harvard University developed the theory of Multiple Intelligence and first appeared in Frames of Mind: The Theory of Multiple Intelligences (Gardner, 1983). He described intelligence as the combination of psychological and biological characteristics that enable individuals to solve problems or create products valued in one or more cultures (Gardner, 1999).

Multiple intelligence is both innate and acquired mental abilities that human beings use and develop through education. They are combination of physical, biological and social domain. Howard Gardner's prominent work is histheory on multiple intelligences. He noticed two assumptions; firstly, intelligence is a single, general capacity that every human processes to a greater or lesser extent and, second, that is measurable through standardized verbal instruments such as short-answer paper-and-pencil tests. Gardner's multiple intelligence theory purposes the existence of seven bits of intelligence, linguistic, musical, logical-mathematical, spatial, body-kinesthetic, and person intelligence, which consist of the intrapersonal and the interpersonal. He believes that human beings have involved displaying several bits of intelligence rather than exhibiting a single flexible intelligence.

Characteristics of Multiple Intelligence

To become intelligent, the characteristics meet the following seven criteria:

- Seen in relative isolation in prodigies, autistic savants, stroke victims, and other exceptional population.
- Have a distinct development trajectory.
- Have some basis in evolutionary biology.
- Captured in symbol systems.
- Supportedbyevidence from psychometric tests of intelligence.
- Genuinely useful and important in certain cultural settings.

The multiple intelligence are interconnected and support each other during the performance. The verbal/linguistic mathematical intelligence are moderate, interpersonal, interpersonal, existential, intrapersonal, naturalistic, and bodily/kinesthetic intelligence are weekly correlated and musical intelligence is not correlated to academic achievement. Multiple intelligences provide a theoretical foundation for recognizing students' different abilities and talents. This study acknowledges that while all student may not be verbally or mathematically gifted, children may have expiries in other areas, such a music, spatial relations, or interpersonal knowledge Approaching and assessing learning in this manner allows a wider range of students tosuccessfully participate in classroom learning.

Need of the Study

No two individuals are alike, the individual differences may differ with intelligence, behavior etc. Most of the problems occur during the adolescent stage, understanding of multiple-intelligence at that stage help them to adjust belter with their present environment and the future, especially secondary school student.

Gardner (1983) suggested that our instructional methods must undergo a revolution if we reach all students who have at least eight ways of knowing. This revolution must start with the awareness of both learners and practitioners. The teacher has the key to unlock the learners' full potential by designing classroom activities to develop their multiple intelligence. Once a student adapts to using his intelligence effectively through practiceand exposure, learning can easily be an independent venture.

Although there are several researches about the relationship between students' multiple intelligence and secondary school student, there is no coordination between the findings of these researches. To fill this gap, this research aims to explore the potential relationship between the findings of these researches.

Objectives of the Study

- To study the mean scores of multiple intelligence of Government secondary school boys students.
- To study the mean scores of multiple intelligence of Government secondary school girl students.
- To study the mean scores of multiple intelligence of private Secondary School boys Student.
- To study the mean scores of multiple intelligence of Private Secondary School girls Student.
- To compare the mean scores of multiple intelligences of Government and Private secondary school students.
- To compare the mean score of multiple intelligence of boys and girls secondary school students.
- To study the educational implications of the study.

Hypotheses of the Study

H_1 There is no significant difference in the mean scores of multiple intelligence of Government and Private secondary school students.

H_2 There is no significant difference in the mean scores of multiple intelligence of boys and girls of secondary school students.

Research Design

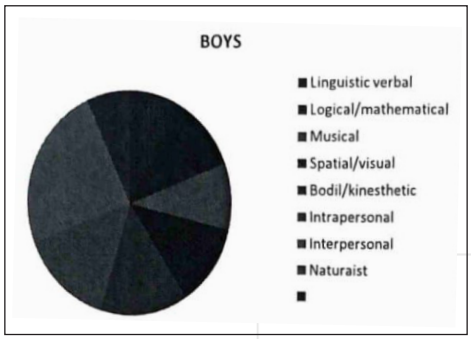
Multiple Intelligence is Dependent Variable in the study. Descriptive Survey method was used in the study with the sample of 50 boys and 50 girl secondary school students. Howard Gardner's Multiple Intelligence Test (1983) was used for data collection. There are 108 short type questions that are based on nine multiple intelligences.

Results and Discussion

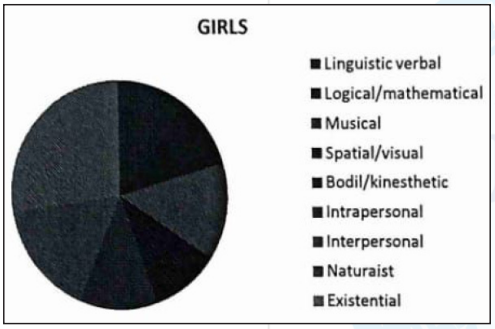
From table 1 it is evident that the t-value is 8.10, which is significant at 0.05 and 0.01 level. It indicates that the mean scores of government and private school students differ significantly.

From table 2, it is evident that t-value is 3.87, which is significant at 0.05 and 0.01 level. It indicates that the mean score of boys and girls differ significantly.

Pie chart showing percentage multiple intelligences of Boys.



Pie chart showing percentage multiple intelligences of Girls.



The score of Linguistic verbal intelligence of girls is 1.5, which is higher than boys' linguistic verbal intelligence i.e., 1.06 but the score of Logical/Mathematical of boys 1.58 is greater than girls' score that is 1.38. The musical intelligence score of girls which is 1.96 is greater than boys 1.32 musical intelligence score. The spatial intelligence score of boys is 1.66, which is greater than girls score, i.e., 1.48 but the physical/ kinesthetic scores of girls are 1.66, which is less than boys' 1.92 scores. The score of intrapersonal intelligence of girls is 2.3, which is greater than boys' 2.02 score, and the interpersonal intelligence score of girls' 2.16, which is greater than boys' score 1.48. The score of naturalist intelligence of boys is 1.82 and girls score is 1.72 and existential intelligence score of both 0.94 is equal.

According to the data analysis and interpretation, it has been found that there is a significant difference in the mean scores of multiple intelligence of boys and girls. As we had surveyed the sample of 100 (50 boys and 50 girls) inferredfrom the analysis that there is significant difference among the two groups (boys and girls). So we can say that there is a significant difference in multiple intelligence based on gender.

With the analysis and interpretation, the significant difference between the secondary school students of Government and Private has been found. So, we can say that multiple intelligence of Government and private secondary school students differ significantly. It was also inferred that the Linguistic/verbal intelligence of girls is higher than boys. The Logical/Mathematical intelligence of boys is greater than girls whereas is Musical intelligence of girls is greater than boys. The spatial and kinaesthetic intelligence of boys is greater than girls. Intrapersonal and interpersonal intelligence of girls is greater than boys, whereas existential intelligence of boys and girls is equal.

Educational Implications of the Study

- Using multiple intelligences as a practice model can accommodate all students' ways of learning and diversify their experience.
- It provides a theoretical foundation for recognizing students' different abilities and talents.
- It allows a wider range of students to successfully participate in classroom learning.
- It allows the teacher to make more informed decisions on what to teach and present information.
- Profiles of each child can be used as a resource that shows the child's predominant multiple intelligences and shows the child's lesser-used intelligence. These profiles will help future teachers and educators promote the individualization of each child's learning in the classroom.
- By recognizing that children have multiple ways of learning and providing them with different media and activities, children can symbolize their representations based on their multiple intelligences.
- It helps teachers to design their lesson or how a school designs their curriculum.
- this intelligence can be helpful for students to understand themselves and their specific strengths and weakness.
- The theory of multiple intelligences implies that educators can recognize and teach to a broader range of talents and skills.
- One of the implications for students is vocational counseling, which enables them to determine whether to continue their studies in the intelligence stream or the vocational stream based on their intelligence inclination and interests.

Table1: Mean Scores of Multiple Intelligence of Government and Private Secondary School Students

Multipleintelligence	*Mean*	*S.D.*	*N*	*D.F*	*t-value*	*Remarks*
GovernmentSchool	26.12	2.85	50			
			98	8.10	Significant	
PrivateSchool	31.48	3 7	50			

Table 2: Mean Scores of Multiple Intelligence of Boys and Girls of Secondary School IStudents

Multiple intelligence	*Mean*	*S.D.*	*N*	*D.F*	*t-value*	*Remarks*
Boys	27.6	2.58	50			
			98	3.87	Significant	
Girls	29.98	3.50	50			

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