

## **A STUDY OF MULTIPLE INTELLIGENCE AMONG D.T.ED STUDENTS**

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### **Abstract**

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*Present paper deals with the Multiple Intelligence introduced by Dr. Howard Gardner. Dr. Howard Gardner introduced the theory in frames of minds and suggested that each individual possesses at least seven such relatively independent mental abilities of intelligence. Teachers and educators must take advantages of this multiplicity of the student's intelligence so that all students have a chance to learn and to demonstrate what they have learned not just those who happen to be gifted with words and numbers. In the present paper Researcher tried to find out that whether there is difference between Multiple Intelligence of girls and boys of D.T.Ed students as they are somewhat of same age and same intelligent level.*



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## **INTRODUCTION**

Today's generation is very knowledgeable. The intelligence is varying from students to students. Now a days students intelligence level seems higher than the earlier generations. They are acquiring more knowledge due to the latest technologies available to them. Parents are also playing a major role towards the development of student's intelligence. The way of thinking and learning style is becoming more higher than the teachers due to which the teachers are facing many problems as per the increase of their perception ability. Man come in this world with wise brain & a generous mind. Earlier I.Q. was considered to be very important & great value was given to such a knowledge of one's I.Q. But the modern psychologist have extensively investigated the characteristic of children perception, thinking & concept formation at different ages.

All the individuals differ in mental traits as much as they do in physical features. No two individuals are alike physically or mentally in the world. this difference is due to heredity as well as environmental influences.

Genetically none of the individual possesses same characters in the world, even in twins. We can find that each one of the individual have different ways of thinking and working style. In the field of education the mental power of each student is different, but in school all are treated with same method. Those who are fast learners can manage in any  
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condition but some talents are pushed back and they became useless. If school teachers & educations makes little sense to treat everyone in one size fits all manner. Multiple intelligence is a very important theory in the field of education which provide ways for a variety of minds to gain and access knowledge.

### **Nature and Characteristics of intelligence**

- 1.Intelligence is a Hereditary Capacity
- 2.Envirnoment is important for proper Development of Intelligence.
- 3.Development of human intelligence is Completed by the age.
- 4.Yogic Exercise can Enhance Hereditary Intelligence
- 5.Gender causes no difference in Intelligence.
- 6.Intelligence is the aggregate of several abilities.
- 7.There is difference between Intelligence and Knowledge.

### **WHAT IS MULTIPLE INTELLIGENCE**

Multiple intelligence theory says that all human beings possesses at least eight forms of intelligence. They are what make us human, cognitively speaking. But because of genetic variations and the accidents of experiences no two of us have the same blend or combination of intelligence. Teachers and educators must take advantages of this multiplicity of the student's intelligence so that all students have a chance to learn and to demonstrate what they have learned not just those who happen to be gifted with words and numbers. The father of the multiple intelligence theory is Dr. Howard Gardener. According to him "formal schooling" neglects these multiple way of knowing. "Uniform schooling" is fair since everyone is being treated in the same way. But it is not school that has long privileged one or two forms of human intelligence and logic while ignoring the other powerful ways in which we can come to know the world. The theory of multiple intelligence challenges the traditional view of intelligence as a unitary capacity that can be adequately measured by I.Q. tests.

### **Howard Gardner's Multiple Intelligences Theory**

Dr. Howard Gardner introduced the theory in frames of mind and suggested that each individual possesses at least seven such relatively independent mental abilities of intelligences or core operations are among the eight criteria he uses to evaluate one or another candidate's intelligence. Howard Gardner of Harvard has identified seven distinct intelligences. Gardner says that these differences "challenge an educational system that

assumes that everyone can learn the same materials in the same way and that a uniform, universal measure suffices to test student learning.

This simple grid diagram illustrates Howard Gardner's model of the seven Multiple Intelligences at a glance.

<b>intelligence type</b>	<b>capability and perception</b>
<b>Linguistic</b>	words and language
<b>Logical-Mathematical</b>	logic and numbers
<b>Musical</b>	music, sound, rhythm
<b>Bodily-Kinesthetic</b>	body movement control
<b>Spatial-Visual</b>	images and space
<b>Interpersonal</b>	other people's feelings
<b>Intrapersonal</b>	self-awareness

### **1. Linguistic intelligence**

Linguistic intelligence is the ability to put words together to form grammatical sentences..

### **2. Logical –mathematical intelligence**

Logical-mathematical intelligence encompasses mathematical calculations, logical thinking, problem-solving, deductive and inductive reasoning, and the discernment of patterns and relationships.

### **3. Musical intelligence**

A person with a well-developed musical intelligence most likely ,Listens and responds with interest to a variety of sounds including the human voice, environmental sounds, and music, and organizes such sounds into meaningful patterns.

### **4. Spatial intelligence**

Learns by seeing and observing. Recognizes faces, objects, shapes, colors, details, and scenes. Navigates self and objects effectively through space, as when moving one’s body through apertures, finding one’s way in a forest without a trail, moving a car through traffic, or paddling a canoe on a river.

### **5. Bodily kinesthetic intelligence. .**

Explores the environment and objects through touch and movement. Prefers to touch, handle, or manipulate what is to be learned. Develops coordination and a sense of timing..

### **6. Inter-personal intelligence.**

Bonds with parents and interacts with others, Forms and maintains social relationships, Recognizes and uses a variety of ways to relate to others.

### **7. Intrapersonal Intelligence**

Is aware of his range of emotions, Finds approaches and outlets to express his feelings and thoughts, Develops an accurate model of self.

### **NEED AND IMPORTANCE OF STUDY**

The present work is the study of Multiple Intelligence technology and its implementation on group of D.T.Ed students level. It has been observed that that students were taught the lessons according to their multiple intelligence in regular classes and it showed better results than the traditional methods. School education is not only an academic education but a preparation of life in the world. The present study is of the multiple intelligence as every child possesses variety of the intelligent. This theory encourages parents, teachers and educators to mature children overall intelligence not just one narrow aspect.

The study will help the teachers and adults parents to offer a variety of experiences and learning opportunities so that they can prevent deep seated emotional problem of the students and refer them to the counselors or psychologists for expert opinion if required. By this study teachers and parents will understand their children and they will be treated with more affection rather than harshness. It will help the students to identify their own strength and preferences and go for the higher education as per their interested fields. The unique intellectual profile of all students will be recognized supported and developed. The school may receive required help from the study to improve the achievement of the students. The administration and management will be able to solve their problems and maintain the desired standard of the school. Study will provide the new teaching methodology for teachers and educators.

### **STATEMENT OF PROBLEM**

A study of multiple intelligence among the students of D.T.Ed students

### **OPERATIONAL DEFINITION**

#### **1) Intelligence**

“The ability to solve problems or to fashion products, that are valued in one or more cultural or community settings”. **Gardner**

## 2) Multiple Intelligence

There are 10 types of multiple intelligence (Howard Gardner). They are linguistic, logical, mathematical, visual-spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, existential naturalistic and moral intelligence. Only seven factors has been taken for present study.

<b>intelligence type</b>
<b>Linguistic</b>
<b>Logical-Mathematical</b>
<b>Musical</b>
<b>Bodily-Kinesthetic</b>
<b>Spatial-Visual</b>
<b>Interpersonal</b>
<b>Intrapersonal</b>

As per the time provided for this study out of ten types, two types-visual spatial and bodily-kinesthetic intelligence were selected for experimental methods.

### 3) D.T.Ed (Diploma in Teacher Education)

D.T.Ed is a professional course in which training of teacher education is given. and which is a two years course.

### 4) Students

In the present study students means students who are taking training of D.T.Ed course.

### OBJECTIVES OF THE STUDY

The following are the objectives of the present research work.

- 1.To study the multiple Intelligences of D.T.Ed students.
- 2.The study the factors of multiple Intelligence of D.T.Ed students. children.
- 3.To compare the factors of Multiple Intelligence of male and female students of D.T.Ed students.

### **HYPOTHESIS OF THE STUDY**

- 1) There is no significant difference in Multiple Intelligence between girls and boys of D.T.Ed students..
- 2) There is no significant difference in linguistic factor of Multiple Intelligence between girls and boys of D.T.Ed students.
- 3) There is no significant difference in logical mathematical factor of Multiple Intelligence between girls and boys of D.T.Ed students.
- 4) There is no significant difference in Musical factor of Multiple Intelligence between girls and boys of D.T.Ed students.
- 5) There is no significant difference in Bodily Kinesthetic factor of Multiple Intelligence between girls and boys of D.T.Ed students.
- 6) There is no significant difference in Spatial Visual factor of Multiple Intelligence between girls and boys of D.T.Ed students
- 7) There is no significant difference in interpersonal factor of Multiple Intelligence between girls and boys of D.T.Ed students
- 8) There is no significant difference in Intrapersonal factor of Multiple Intelligence between girls and boys of D.T.Ed students

### **SCOPE OF THE STUDY**

The present study is the study of multiple intelligence of all the students of D.T.Ed colleges in Nagpur city.

### **DELIMITATIONS OF THE STUDY**

1. The study was confined to D.T.Ed colleges in Nagpur city.
2. The study will confined to all medium of D.T.Ed colleges students.
3. Both male and female students will be involved.
4. The number of student will be 100 in all.
5. The study will be confined to Nagpur city only.

### **METHOD OF THE STUDY :**

-Normative Survey method will be adopted for present study.

**POPULATION :-** All the students of D.T.Ed colleges of Nagpur city is the population of present study.

## SAMPLING

From the all the students of D.T.Ed students.of Nagpur city only 100 Students were selected. Students included both 50 Girls & 50 Boys. They were selected by randomly i.e. boys and girls names were written on paper by lottery method.

Sr. No.	Name of D.T.Ed colleges	Selected Sample	
		Girls	Boys
1	Shantiniketan college of education	10	10
2	Vasant D.T.ed college,nandanwan	10	10
3	Providence D.Ed college	10	10
4	Vaishnodevi D.ed college	10	10
5	Central India college of education	10	10
Total = 100		50	50

## RESEARCH TOOLS

Multiple Intelligence Test prepared by Howard Gardner was selected for the present study. Multiple Intelligence Test Prepared by Howard Gardner is reliable and valid. This has 70 statements having super four points that is

- 1) Mostly disagree
- 2) Slightly disagree
- 3) Slightly agree
- 4) Mostly agree

Time given for the Multiple Intelligence test was 45 minutes

### STATEMENT OF HYPOTHESIS NO. 1

There is no significant difference in Multiple Intelligence between girls and boys of D.T.Ed students..

**TABLE NO – 1 The Mean, standard deviation and t value of Boys & Girls of D.T.Ed students..**

#### D.T.Ed students.

	Girls ( 50)	Boys (50)
Mean	163.21	129.85
Standard deviation	127.87	147.9
<b>Table Value</b>	<b>0.05 - 1.99</b>	
	<b>0.01 – 2.63</b>	
<b>t Value</b>	<b>1.427</b>	

**OBSERVATION**

From the above table it is seen that the mean score of Multiple Intelligences of Girls is 163.21 and S.D. is 127.87. whereas mean of boys is 129.85 and S.D. is 147.9 and t value is 1.427.our calculated value is much lesser than the table value i.e. at 0.05 level 1.99 & 0.01 level 2.63. So, it is not significant at this level. This means our Hypothesis is accepted.

**CONCLUSION**

There is no significant difference between boys and girls of D.T.Ed students so for as their Multiple Intelligence is concerned.

**STATEMENT OF HYPOTHESIS NO. 2**

There is no significant difference in linguistic factor of Multiple Intelligence between girls and boys of D.T.Ed students.

**TABLE NO – 2** The Mean, standard deviation and t value of Boys & Girls of Linguistic Intelligence

**Linguistic Intelligence**

	<b>Girls ( 50)</b>	<b>Boys (50)</b>
Mean	170	120
Standard deviation	147.95	22.76
<b>Table Value</b>	<b>0.05 – 2.31</b>	
	<b>0.01 – 3.36</b>	
<b>tValue</b>	<b>1.056</b>	

**OBSERVATION**

From the above table it is seen that the Mean score of Linguistic Intelligence of Girls is 170 and S.D. is 147.95 whereas mean of that of boys is 120 and S.D. is 22.76.t value is 1.056. our calculated value is much lesser than the table value i.e. at 0.05 level 2.31 & 0.01 level 3.36 So, it is not significant at this level. This means our Hypothesis No 2 is accepted.

**CONCLUSION**

There is no significant difference between boys and girls of D.T.Ed students,so for as their Linguistic Intelligence is concerned.

**STATEMENT OF HYPOTHESIS NO. 3**

There is no significant difference in logical mathematical factor of Multiple Intelligence between girls and boys of D.T.Ed students.

**TABLE NO – 3 The Mean, standard deviation and t value of Boys & Girls of Logical Mathematics Intelligence**

**Logical Mathematics Intelligence**

	<b>Girls ( 50)</b>	<b>Boys (50)</b>
Mean	177	113.5
Standard deviation	131.45	320.8
<b>Table Value</b>	<b>0.05 – 2.26</b>	
	<b>0.01 – 3.25</b>	
<b>tValue</b>	<b>0.6075</b>	

**OBSERVATION**

From the above table it is seen that the mean score of Logical Mathematics Intelligence of Girls is 177 and S.D. is 131.45 whereas mean of boys is 113.5 and S.D. is 320.8 and t value is 0.6075. Our calculated value is much lesser than the table value i.e. at 0.05 level 2.26 & 0.01 level 3.25. So, it is not significant at this level. This means our Hypotheses No 3 is accepted.

**CONCLUSION**

There is no significant difference between boys and girls of D.T.Ed students so for as their Logical Mathematics Intelligence is concerned.

**STATEMENT OF HYPOTHESIS NO. 4**

There is no significant difference in Musical factor of Multiple Intelligence between girls and boys of D.T.Ed students.

**TABLE NO – 4 The Mean, standard deviation and t value of Boys & Girls of Musical Intelligence**

**Musical Intelligence**

	<b>Girls ( 50)</b>	<b>Boys (50)</b>
Mean	145	110
Standard deviation	140.7	2.15
<b>Table Value</b>	<b>0.05 – 2.31</b>	
	<b>0.01 – 3.36</b>	
<b>tValue</b>	<b>0.5035</b>	

**OBSERVATION**

From the above table it is seen that the mean score of Musical Intelligence of Girls is 145 and S.D. is 140.7 whereas mean of that of boys is 110 and S.D. is 215 and t value is 0.5035 our calculated value is much lesser than the table value i.e. at 0.05 level 2.31 & 0.01 level 3.36 So, it is not significant at this level. This means our Hypotheses No. 4 is accepted.

**CONCLUSION**

There is no significant difference between boys and girls of D.T.Ed students. so for as their Musical Intelligence is concerned.

**STATEMENT OF HYPOTHESIS NO. 5**

There is no significant difference in Bodily Kinesthetic factor of Multiple Intelligence between girls and boys of D.T.Ed students.

**TABLE NO – 5 The Mean, standard deviation and T value of Boys & Girls of Bodily Kinesthetic Intelligence**

**Bodily Kinesthetic Intelligence**

	<b>Girls ( 50)</b>	<b>Boys (50)</b>
Mean	162.5	143.5
Standard deviation	75.69	50.73
<b>Table Value</b>	<b>0.05 – 2.45</b>	
	<b>0.01 – 3.71</b>	
<b>tValue</b>	<b>0.9306</b>	

**OBSERVATION**

From the above table it is seen that the Mean score of Bodily Kinesthetic Intelligence of Girls is 162.5 S.D. is 75.69 and mean of that of boys is 143.5 S.D. is 50.73 and tvalue is 0.9306 our calculated value is much lesser than the table value i.e. at 0.05 level 2.45 & 0.01 level 3.71 So, it is not significant at this level. This means our Hypotheses No 5 is accepted.

**CONCLUSION**

There is no significant difference between boys and girls of D.T.Ed students, so for as their Bodily Kinesthetic Intelligence is concerned.

**STATEMENT OF HYPOTHESIS NO. 6**

There is no significant difference in Spatial Visual factor of Multiple Intelligence between girls and boys of D.T.Ed students.

**TABLE NO – 6 The Mean, standard deviation and T value of Boys & Girls of Spatial Intelligence**

**Spatial Intelligence**

	<b>Girls ( 50)</b>	<b>Boys (50)</b>
Mean	145	155
Standard deviation	140.7	109.09
<b>Table Value</b>	<b>0.05 – 2.31</b>	
	<b>0.01 – 3.36</b>	
<b>tValue</b>	<b>1.1206</b>	

**OBSERVATION**

From the above table it is seen that the Mean score of Spatial Intelligence of Girls is 145 S.D. is 140.7 and mean of that of boys is 155 S.D. is 109.09 and tvalue is 1.1206 our calculated value is much lesser than the table value i.e. at 0.05 level 2.31 & 0.01 level 3.36 So, it is not significant at this level. This means our Hypotheses No 6 is accepted.

**CONCLUSION**

There is no significant difference between boys and girls of D.T.Ed students,so for as their Spatial Intelligence is concerned.

**STATEMENT OF HYPOTHESIS NO. 7**

There is no significant difference in interpersonal factor of Multiple Intelligence between girls and boys of D.T.Ed students

**TABLE NO – 7 The Mean, standard deviation and t value of Boys & Girls of Inter Personal Intelligence**

**Inter Personal Intelligence**

	<b>Girls ( 50)</b>	<b>Boys (50)</b>
Mean	168	127
Standard deviation	187.5	162
<b>Table Value</b>	<b>0.05 – 2.26</b>	
	<b>0.01 – 3.25</b>	
<b>tValue</b>	<b>0.38</b>	

**OBSERVATION**

From the above table it is seen that the Mean score of Inter Personal Intelligence of Girls is 168, S.D. is 187.5 and mean of that of boys is 127, S.D. is 162 and t value is 0.38 our calculated value is much lesser than the table value i.e. at 0.05 level 2.26 & 0.01 level 3.25 So, it is not significant at this level. This means our Hypotheses No 7 is accepted.

**CONCLUSION**

There is no significant difference between boys and girls of D.T.Ed students,so for as their Linguistic Intelligence is concerned.

**STATEMENT OF HYPOTHESIS NO. 8**

There is no significant difference in Intrapersonal factor of Multiple Intelligence between girls and boys of D.T.Ed students

**TABLE NO – 8 The Mean, standard deviation and t value of Boys & Girls of Intra Personal Intelligence**

**Intra Personal Intelligence**

	<b>Girls ( 50)</b>	<b>Boys (50)</b>
Mean	175	140
Standard deviation	71.15	155.1
<b>Table Value</b>	<b>0.05 – 2.31</b>	
	<b>0.01 – 3.36</b>	
<b>t Value</b>	<b>0.3921</b>	

**OBSERVATION**

From the above table it is seen that the Mean score of Intra Personal Intelligence of Girls is 175 S.D. is 71.15 and mean of that of boys is 140 S.D. is 155.1 and tvalue is 0.3921 our calculated value is much lesser than the table value i.e. at 0.05 level 2.31 & 0.01 level 3.36 So, it is not significant at this level. This means our Hypotheses No 8 is accepted.

**CONCLUSION**

There is no significant difference between boys and girls of D.T.Ed students, so for as their Intra Personal Intelligence is concerned.

**CONCLUSIONS**

To estimate Multiple Intelligence and its factors on the students of D.T.Ed students. The conclusions are as

- 1) There is no significant difference in Multiple Intelligence between girls and boys of D.T.Ed students..
- 2) There is no significant difference in linguistic factor of Multiple Intelligence between girls and boys of D.T.Ed students.
- 3) There is no significant difference in logical mathematical factor of Multiple Intelligence between girls and boys of D.T.Ed students.
- 4) There is no significant difference in Musical factor of Multiple Intelligence between girls and boys of D.T.Ed students.
- 5) There is no significant difference in Bodily Kinesthetic factor of Multiple Intelligence between girls and boys of D.T.Ed students.
- 6) There is no significant difference in Spatial Visual factor of Multiple Intelligence between girls and boys of D.T.Ed students
- 7) There is no significant difference in interpersonal factor of Multiple Intelligence between girls and boys of D.T.Ed students

- 8) There is no significant difference in Intrapersonal factor of Multiple Intelligence between girls and boys of D.T.Ed students

### **SUGGESTIONS**

1. The teacher of D.T.Ed college should know the importance of multiple intelligence.
2. The teacher of D.T.Ed college should find out the intelligence of the students and should frame his/her lesson plan according to the intelligence of the students.
3. They should organize co-curricular activities in every subject so as to provide better learning environment to the students.
4. Teachers of D.T.Ed college should change their teaching methods as per the level of the students and their intelligence.
5. Teachers of D.T.Ed college should participate in re-orientation programmes that they would be capable of modifying their methods of teaching.
6. Teachers of D.T.Ed college should not limit themselves with the world of classrooms. They should pay attention to use necessary teaching aids for the proper development of the child.
7. Children should be given proper guidance to decide the subjects in future.
8. Teacher should be careful while checking the degree of multiple intelligence.

### **REFERENCE**

- Sharma R.A., Dubey Shri, *Psychological Foundation of Education*
- Krishna and Barollia A. , Bhatnagar S. and Saxena A., *Advanced Educational Psychology (2008)*
- Mathur S.S. *Educational Psychology (P-15), Terman Intelligence and its Measurement: A Symposium. Journal, Of Education Psychology, P. 127-133 (1921)*
- Gardner Howard, "Can Technology exploit our many ways of knowing" (2009) *The Hindu Education Plus, Bangalore. Jan. 31(2005)*
- Bhakar S. and Mathur G. *Cultural intelligence: An Essential Requirement in Globalize Business World, Psycho Lingua, Vol. 36 (1). (2009)*
- Duhan K. and Sangwan S. *Emotional Intelligence: A vision Psycho Lingua, Vol. 39 (2) : 161-167 (2009)*
- Singh S. and Kumar G. *Emotional Intelligence among Convent and Saraswati School Teacher, Psycho Lingua, Vol. 39 (2): 139-141.(2009)*
- Sharma K.P. and Verma B.P. *Effect of Intelligence and personality on learning style of Student Teachers, Psycho Lingua, and Vol. 39 (1): 29-33. (2009)*
- Kritika, Sangwan S. and Duhan K. *Multiple Intelligence of slow learner, Young adolescence, Psycho Lingua, Vol. 39 (2): 74-77 (2009)*

Sharma R.A., *Educational Research*. (2008)

Shirley Veenema and Howard Gardner *Multimedia and Multiple Intelligences* Nov. –Dec.1996, P. 69-75.

Niall Douglas, *Multiple Intelligence Tests*, /Niall Stuff/ *intelligence \_test.html*. May(2011)

Dey Niradhar, *Influence of Emotional Intelligence on Academic self Efficiency and achievement*, Vol. 39(2): 171-174 (2009)

[https://www.google.co.in/search?source=hp&ei=IupnXY\\_tCY3bz7sP74OioA4&q=multiple+intelligence+theory+by+howard+gardner&oq=multiple+intelligence&gs\\_l=psy-ab.1.4.0l10.2163.12670..16546...0.0..2.1462.14236.2-8j2j0j4j6.....0....1..gws-wiz.....10..35i39j0i131.7CV4aR31B3Q](https://www.google.co.in/search?source=hp&ei=IupnXY_tCY3bz7sP74OioA4&q=multiple+intelligence+theory+by+howard+gardner&oq=multiple+intelligence&gs_l=psy-ab.1.4.0l10.2163.12670..16546...0.0..2.1462.14236.2-8j2j0j4j6.....0....1..gws-wiz.....10..35i39j0i131.7CV4aR31B3Q)

<https://www.verywellmind.com/gardners-theory-of-multiple-intelligences-2795161>

<https://www.tecweb.org/styles/gardner.html>