



## Influence of The Multiple Intelligence on Achivement of Under Graduate Zoology Students

### KEYWORDS

Multiple intelligence, achievement, and under graduate zoology students

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**ABSTRACT** *Intelligence is most widely studied in human beings. But has also been observed in animals and plants. Intelligence is the capacity to do something useful in the society in which live. It includes the abilities to think, abstract, understand, communicate, reason, learn, plan and solve problems and also ability to respond successfully to new situations and the capacity to learn from one's past experiences.*

*However, the emerging views on theories of intelligence of the recent times of contradicts some of the postulants and convictions of the earlier theories. One such conception is the theory of Multiple Intelligences proposed by Howard Gardner. He suggested in his book 'Frames of Mind': "theory of multiple intelligence" (1993) that all the people have different kinds of intelligence. Intelligence is often defined as intellectual potential something that the children are born with the different intelligences including linguistic intelligence, logical – mathematical intelligence, visual- spatial intelligence, musical intelligence, bodily kinesthetic intelligence, intra – personal intelligence, interpersonal intelligence, naturalistic intelligence, extential intelligence must be developed. In order to capture the full range of abilities and talents the children possess. There are many ways to incorporate multiple intelligence theory into the curriculum and achievement. In this study the investigator focuses the influence of the multiple intelligence on achievement of undergraduate zoology students.*

### INTRODUCTION

The basic problem that all living creatures face after taking birth is the problem of adaptations to the environment mentally, physically, emotionally, socially, academically and professionally. Some creatures have some natural capacities which help them to adapt to their environment and no systemic education is needed for this purpose but in case of human is different. His/her family and the society educate him/her formally to make himself/herself dependent. The intellectual power and wisdom that man/woman has over and above other animals help him/her to receive education. It is the education that helps him/her to adapt to the environment. Thus drawing out the innate capacities of the individual to develop his personality to the full by training or teaching is education. This concept is come very close to the definition of education as, 'the manifestation of perfection already existing in man' as envisaged by Swami Vivekananda.

### RATIONALE OF THE STUDY

Intelligence is most widely studied in human beings. But has also been observed in animals and plants. Intelligence is the capacity to do something useful in the society in which live. It includes the abilities to think abstract understand communicate, reason, learn and from one's past experiences.

However, the emerging views on theories of intelligence of the recent times of contradicts some of the postulants and convictions of the earlier theories. One such conception is the theory of multiple intelligences proposed by Howard Gardner. He suggested in his book 'Frames of Mind': "theory of multiple intelligence" (1993) that all the people have different kinds of intelligence. Intelligence is often defined as intellectual potential something that the children are born with the different intelligences including linguistic intelligence, logical – mathematical intelligence, visual- spatial intelligence, musical intelligence, bodily kinesthetic intelligence, intra – personal intelligence, interpersonal intelligence, naturalistic intelligence, extential intelligence must be developed. In order to capture the full range of abilities and talents the children possess. There are many ways to incorporate Multiple intelligences theory into the curriculum and achievement.

Studies based on multiple intelligence and status of academic achievement, multiple intelligence reveals that the main objectives of education institutions are to produce pupils who are physically sound, mentally alert, emotionally and culturally stable and acceptable individuals. But the question arises as to how quickly he/she uses it to encounter a given situation. Srivastava (1952) explained that one-tenth of the human being's potentials are utilized to the various and multifarious activities of life, and the rest of the same remains unspent and unutilized, meaning thereby that a major portion of out abilities, capacities and capabilities are not used. Many factors related to multiple intelligence influence the performance of students in the subjects.

Thus a need is felt to investigate the relationship between multiple intelligence with achievement of students at the under graduate level zoology students.

### GENERAL OBJECTIVE :

To find out the level of multiple intelligence and achievement of undergraduate zoology students.

### SPECIFIC OBJECTIVES :

- To find out the level of multiple intelligence, biodiversity, cell biology, animal physiology, embryology genetics & biotechnology and achievement in total of male and female undergraduate zoology students.
- To find out the significance difference with multiple intelligence, biodiversity cell biology, animal physiology, embryology genetics & biotechnology and achievement in total of rural and urban undergraduate zoology students.
- To find out the significant correlation between multiple intelligence and dimensions of achievement of undergraduate zoology students with respect in background variables.

### METHODOLOGY

The investigator has adopted survey method for this study.

### POPULATION AND SAMPLE

The population of the present study is undergraduate zo-

ology students studying in colleges of Thoothukudi district affiliated to Manonmaniam Sundaranar University, Trinaveli. 300 undergraduate zoology students are taken as a sample for carrying out this study.

**TOOLS EMPLOYED IN THE STUDY**

Multiple Intelligence Inventory developed by Terry Armstrong.

Zoology Academic Achievement Test developed by the investigator.

**VARIABLES**

The investigator selected the following variables such as gender, religion, caste, family status, location of the college, types of college, management of college, parents qualification, parents occupation and annual income of the parents.

**STATISTICAL TECHNIQUES EMPLOYED IN THE STUDY**

The following statistical techniques were adopted to data analysis

**Percentage analysis ANOVA**

Pearson's Product moment co-efficient of correlation

**FINDINGS**

Level of male and female multiple intelligence and achievement and its dimensions of undergraduate zoology students.

**TABLE : 1**

Content	Sex	Low %	Medium %	High %
Multiple Intelligence	Male	21.43	69.05	9.52
	Female	12.95	72.22	14.81
Biodiversity	Male	15.48	65.48	19.05
	Female	13.89	66.67	19.44
Cell Biology	Male	16.67	73.81	9.77
	Female	18.52	71.30	10.19
Animal Physiology	Male	14.29	60.71	25.00
	Female	14.35	67.13	18.52
Embryology	Male	13.10	65.48	21.43
	Female	10.19	71.30	18.52
Genetics & Biotechnology	Male	19.05	60.71	20.24
	Female	23.15	63.89	12.96
Achievement Total	Male	16.67	59.52	23.81
	Female	12.50	72.22	15.28

It is found that the male and female undergraduate zoology students were average in their Multiple Intelligence and academic achievement and its dimensions.

Significant difference between rural and urban undergraduate zoology students in their multiple intelligence and achievement and its dimensions.

**TABLE : 2**

Content	Rural		Urban		Cal. Value of "t"	Remarks at 5% level
	Mean	SD	Mean	SD		
Multiple Intelligence	167.71	43.07	162.05	43.63	1.19	NS
Biodiversity	11.93	3.21	13.14	3.08	3.30	S
Cell Biology	12.44	2.334	12.91	2.25	1.75	NS

Animal Physiology	11.80	2.28	12.38	2.58	2.02	S
Embryology	12.06	2.16	12.60	2.58	1.95	NS
Genetics & Biotechnology	11.36	2.14	11.92	2.64	2.22	S
Achievement Total	59.61	7.55	63.03	9.33	3.48	S

There is significant difference between rural and urban undergraduate zoology students in their biodiversity, animal physiology, genetics & biotechnology and achievement in total. and there is no significant difference in multiple intelligence, cell biology and embryology.

**Correlation**

Correlation between multiple intelligence and dimensions of achievement.

**TABLE : 3**

Dimensions of achievement	Parent's Qualification	count	'r' value		Remarks at 5%level
			Calc.	Table	
Bio Diversity	School	189	0.3384	0.142	S
	College	70	0.4550	0.232	S
	Technical	41	0.4316	0.309	S
Cell biology	School	189	0.1073	0.142	NS
	College	70	0.0333	0.232	NS
	Technical	41	0.2376	0.309	NS
Animal Physiology	School	189	0.2992	0.142	S
	College	70	0.2180	0.232	NS
	Technical	41	0.2003	0.309	NS
Embryology	School	189	0.3098	0.142	S
	College	70	0.3897	0.232	S
	Technical	41	0.213	0.309	NS
Genetics & Biotechnology	School	189	0.2395	0.142	S
	College	70	0.3152	0.232	S
	Technical	41	0.3025	0.300	S
Achievement in Total	School	189	0.3934	0.142	S
	College	70	0.4516	0.232	S
	Technical	41	0.3009	0.309	NS

The above table represents that the parents qualification of the students there is significant relationship between multiple intelligence respected with bio Diversity of School, College and technical qualification of parents, animal physiology of school qualification of parents, embryology of school and college qualification of parents, genetics & biotechnology school, college and technical qualification of parents and

total achievement of school and college qualification of parents.

But there is no significant relationship between multiple intelligences respected with Cell biology school, college and technical qualification of parents. Animal physiology college and technical qualification of parents, embryology technical qualification of parents total achievement of technical qualification of parents. In terms of religion, caste, family status, types of college, management of college, parents qualification, parents occupation, annual income of the students have no remarkable significant relationship.

### CONCLUSION

The present study is evident that the level of multiple Intel-

ligence and the level of achievement of undergraduate zoology students are correlated. From the analysis of correlation it is also clear that the variables, Multiple intelligence and achievement are correlated to each other. Both multiple intelligence as well as achievement is necessary for the students to be successful in today's highly competitive world. But it is not possible for the students from different family background to have the same level of multiple intelligence. It is useful to teachers to identify and improve the performance of students with less intelligence and academic achievement in different types of colleges.

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