MULTIPLE INTELLIGENCE AND ACHIEVEMENT IN ENGLISH OF XI STANDARD STUDENTS

By

Priyanka. J

M.Ed. Student, Bishop Agniswamy College of Education, Muttom. Kanyakmari District, Tamil Nadu, India

Abstract

The main objective of this study is to find out the relationship between multiple intelligence and achievement in English of XI standard students. Multiple intelligence and achievement in English questionnaires are used to collect the relevant data. The sample consists of 300 XI standard students from four higher secondary schools. Among them 105 are male students and 195 are female students. The data are analysed by 't' test and Karl Pearson's Product moment correlation. The results indicate that there is significant relationship between multiple intelligence and achievement in English of XI standard students.

Keywords: multiple intelligence, achievement in english, XI standard students

Introduction

Education is the key, which enables an individual to develop their desirable habits, skills and attitudes. It makes an individual a good citizen. According to John Dewey, "Education is the development of all those capacities in the individual which will enable him to control his environment and fulfill his responsibilities". According to Swami Vivekananda, "Education is the manifestation of perfection already existing in man". Therefore education is a process of identifying the hidden talents of the individuals and providing training to the individuals. The training can be given to the individuals according to their abilities.

Significance of the Study

Multiple intelligence is a set of skills allowing individuals to find and resolve genuine problems they face. It improves a man's learning potential. When a person learns, he/she not only uses one of these intelligence but combinations of all nine types of intelligence. It can be nurtured and strengthened or ignored and weakened. In the modern world, language has become one of the essential needs. Learning of other languages apart from one's mother tongue has some difficulties in understanding. But a student with multiple intelligence can acquire everything easily. A student with multiple intelligence would achieve in English. Achievement in English is influenced by many factors such as interest, creativity and intelligence. In general, multiple intelligence is needed to learn something new. But their performance in English depends on the multiple intelligence of the students. If the students have multiple intelligences, there will be a high level of achievement in English. Therefore, the investigator wants to know the relationship between multiple intelligence and achievement in English of XI standard students.

Objectives

1. To find out whether there is any significant difference between male and female XI standard students in their verbal linguistic, logical mathematical, visual spatial, bodily kinesthetic, musical rhythmic, interpersonal, intrapersonal, naturalistic, existential and multiple intelligence.

2. To find out whether there is any significant difference between arts group and science group XI standard students in their verbal linguistic, logical mathematical, visual spatial, bodily kinesthetic, musical rhythmic, interpersonal, intrapersonal, naturalistic, existential and multiple intelligence.

3. To find out whether there is any significant difference between XI standard students from rural and urban area in their verbal linguistic, logical mathematical, visual spatial, bodily kinesthetic, musical rhythmic, interpersonal, intrapersonal, naturalistic, existential and multiple intelligence.

4. To find out whether there is any significant difference between male and female XI standard students in their achievement in English.

5. To find out whether there is any significant difference between arts group and science group XI standard students in their achievement in English.

6. To find out whether there is any significant difference between XI standard students from rural and urban area in their achievement in English.

7. To find out whether there is any significant relationship between multiple intelligence and achievement in English of XI standard students.

Null Hypotheses

1. There is no significant difference between male and female XI standard students in their verbal linguistic, logical mathematical, visual spatial, bodily kinesthetic, musical rhythmic, interpersonal, intrapersonal, naturalistic, existential and multiple intelligence.

2. There is no significant difference between arts group and science group XI standard students in their verbal linguistic, logical mathematical, visual spatial, bodily kinesthetic, musical rhythmic, interpersonal, intrapersonal, naturalistic, existential and multiple intelligence.

3. There is no significant difference between XI standard students from rural and urban area in their verbal linguistic, logical mathematical, visual spatial, bodily kinesthetic, musical rhythmic, interpersonal, intrapersonal, naturalistic, existential and multiple intelligence.

4. There is no significant difference between male and female XI standard students in their achievement in English.

5. There is no significant difference between arts group and science group XI standard students in their achievement in English.

6. There is no significant difference between XI standard students from rural and urban area in their achievement in English.

7. There is no significant relationship between verbal linguistic, logical mathematical, visual spatial, bodily

kinesthetic, musical rhythmic, interpersonal, intrapersonal, naturalistic, existential and multiple intelligence and achievement in English of XI standard students.

Methodology

The investigator adopted survey method. The population for the study is XI standard students in Kanyakumari District. The investigator has used stratified random sampling technique for selecting the sample from the population. The sample consists of 300 XI standard students from four schools. Among them 105 are male and 195 are female. Multiple Intelligence Inventory developed by Howard Gardner and Achievement in English Questionnaire developed and validated by the investigator were used for collecting the data. The data are analysed by 't' test and Karl Pearson's Product moment correlation.

Analysis of Data

Table 1. Level of Multiple Intelligence of XI Standard Students

Multiple Intelligence and its Dimensions	Low		Moderate		High	
	No	%	No	%	No	%
Verbal Linguistic Intelligence	103	34.3	187	62.3	10	3.3
Logical Mathematical Intelligence	64	21.3	220	73.3	16	5.3
Visual Spatial Intelligence	49	16.3	231	77.0	20	6.7
Bodily Kinesthetic Intelligence	43	14.3	227	75.7	30	10.0
Musical Rhythmic Intelligence	67	22.3	208	69.3	25	8.3
Interpersonal Intelligence	55	18.3	229	76.3	16	5.3
Intrapersonal Intelligence	47	15.7	230	76.7	23	7.7
Naturalistic Intelligence	41	13.7	225	75.0	34	11.3
Existential Intelligence	213	71.0	53	17.7	41	13.7
Multiple Intelligence	41	13.7	217	72.3	42	14.0

It is inferred from the above table that 34.3% of XI standard students have low, 62.3% of them have moderate and 3.3% of them have high level of verbal linguistic intelligence.

It is inferred from the above table that 21.3% of XI standard students have low, 73.3% of them have moderate and 5.3% of them have high level of logical mathematical intelligence.

It is inferred from the above table that 16.3% of XI standard students have low, 77.0% of them have moderate and 6.7% of them have high level of visual spatial intelligence.

It is inferred from the above table that 14.3% of XI standard students have low, 75.7% of them have moderate and 10.0% of them have high level of bodily kinesthetic intelligence.

It is inferred from the above table that 22.3% of XI standard students have low, 69.3% of them have moderate and 8.3% of them have high level of musical rhythmic intelligence.

It is inferred from the above table that 18.3% of XI standard students have low, 76.3% of them have moderate and 5.3% of them have high level of interpersonal intelligence.

It is inferred from the above table that 15.7% of XI standard students have low, 76.7% of them have moderate and 7.7% of them have high level of intrapersonal intelligence.

It is inferred from the above table that 13.7% of XI standard students have low, 75.0% of them have moderate and 11.3% of them have high level of naturalistic intelligence.

It is inferred from the above table that 71.0% of XI standard students have low, 17.7% of them have moderate and 13.7% of them have high level of existential intelligence.

It is inferred from the above table that 13.7% of XI standard students have low, 72.3% of them have moderate and 14.0% of them have high level of multiple intelligence.

Table 2. Difference between Male and Female XI Standard Students in Their Multiple Intelligence

Multiple Intelligence and its Dimensions	Male (N=105)		Female (N=195)		Calculated Value of 't'	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Verbal Linguistic Intelligence	20.65	3.085	19.73	3.276	2.395	Significant
Logical Mathematical Intelligence	21.06	3.165	20.81	3.506	0.620	Not Significant
Visual Spatial Intelligence	21.72	3.567	21.21	3.189	1.234	Not Significant
Bodily Kinesthetic Intelligence	22.29	3.623	21.81	3.951	1.061	Not Significant
Musical Rhythmic Intelligence	21.61	3.960	21.76	7.934	0.225	Not Significant
Interpersonal Intelligence	21.66	3.171	20.91	3.618	1.844	Not Significant
Intrapersonal Intelligence	21.93	3.217	21.72	3.732	0.522	Not Significant
Naturalistic Intelligence	22.30	3.617	22.39	3.443	0.197	Not Significant
Existential Intelligence	22.06	4.099	22.95	3.822	1.839	Not Significant
Multiple Intelligence	195.28	20.983	193.29	22.805	3.921	Significant

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between male and female XI standard students in their logical mathematical, visual spatial, bodily kinesthetic, musical rhythmic, interpersonal, intrapersonal, naturalistic and existential intelligence, but there is significant difference between male and female XI standard students in their verbal linguistic and multiple intelligence.

While comparing with female students, male students are better in their verbal linguistic and multiple intelligence.

Table 3. Difference between Arts Group and Science Group XI Standard Students in their Multiple Intelligence

Multiple Intelligence and its Dimensions	Arts (N=92)		Science (N=208)		Calculated Value of 't'	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Verbal Linguistic Intelligence	19.25	3.247	20.41	3.173	2.870	Significant
Logical Mathematical Intelligence	20.18	3.331	21.21	3.371	2.453	Significant
Visual Spatial Intelligence	20.87	3.484	21.62	3.240	1.758	Not Significant
Bodily Kinesthetic Intelligence	22.43	3.577	21.77	3.942	1.439	Not Significant
Musical Rhythmic Intelligence	20.88	3.652	22.08	7.783	1.812	Not Significant
Interpersonal Intelligence	20.93	3.095	21.28	3.641	0.840	Not Significant
Intrapersonal Intelligence	21.98	3.162	21.71	3.721	0.637	Not Significant
Naturalistic Intelligence	22.07	3.529	22.49	3.486	0.966	Not Significant
Existential Intelligence	23.07	3.425	22.45	4.137	1.349	Not Significant
Multiple Intelligence	191.66	20.010	195.01	23.115	1.274	Not Significant

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between arts group and science group XI standard students in their bodily kinesthetic, musical rhythmic, interpersonal, intrapersonal, naturalistic, existential and multiple intelligence, but there is significant difference between arts group and science group XI standard students in their verbal linguistic and logical mathematical intelligence.

While comparing with arts group students, science group students are better in their verbal linguistic and logical mathematical intelligences.

Table 4. Difference between XI Standard Students from Rural and Urban Area in their Multiple Intelligence

Multiple Intelligence and its Dimensions	Rural (N=124)		Urban (N=176)		Calculated Value of 't'	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Verbal Linguistic Intelligence	20.14	3.532	19.99	3.017	0.366	Not Significant
Logical Mathematical Intelligence	20.61	3.682	21.10	3.158	1.187	Not Significant
Visual Spatial Intelligence	21.35	3.499	21.42	3.213	0.186	Not Significant
Bodily Kinesthetic Intelligence	21.68	3.576	22.18	4.013	1.143	Not Significant

Musical Rhythmic Intelligence	20.94	3.908	22.25	8.226	1.834	Not Significant
Interpersonal Intelligence	20.69	3.382	21.52	3.518	2.062	Significant
Intrapersonal Intelligence	21.48	3.666	22.02	3.470	1.287	Not Significant
Naturalistic Intelligence	22.21	3.933	22.47	3.166	0.601	Not Significant
Existential Intelligence	22.15	4.207	22.98	3.709	1.783	Not Significant
Multiple Intelligence	191.23	24.112	195.93	20.652	1.759	Not Significant

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between XI standard students from rural and urban area in their verbal linguistic, logical mathematical, visual spatial, bodily kinesthetic, musical rhythmic, intrapersonal, naturalistic, existential and multiple intelligence, but there is significant difference between XI standard students from rural and urban area in their interpersonal intelligence.

While comparing with rural students, urban students are better in their interpersonal intelligence.

Table 5. Level of Achievement in English of XI Standard Students

Variable	Low		Moderate		High	
	No	%	No	%	No	%
Achievement in English	82	27.3	159	53.0	59	19.7

It is inferred from the above table that 27.3% of XI standard students have low, 53.0% of them have moderate and 19.7% of them have high level of achievement in English.

Table 6. Difference between Male and Female XI Standard Students in their Achievement in English

Variable	Male (N=105)		Female (N=195)		Calculated Value of 't'	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Achievement in English	17.88	8.361	21.03	7.313	3.254	Significant

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that there is significant difference between male and female XI standard students in their achievement in English. While comparing with male students, female students are better in their achievement in English.

Table 7. Difference between Arts group and Science group XI Standard Students in their Achievement in English

Variable	Arts (N=92)		Science (N=208)		Calculated Value of 't'	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Achievement in English	22.48	6.054	18.80	8.260	4.318	Significant

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that there is significant difference between arts group and science group XI standard students in their achievement in English.

While comparing with science group students, arts group students are better in their achievement in English.

There is no significant difference between XI standard students from rural and urban area in their achievement in English.

Table 8. Difference between XI Standard Students from Rural and Urban Area in their Achievement in English

Variable	Rural (N=124)		Urban (N=176)		Calculated Value of 't'	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Achievement in English	20.53	8.387	19.50	7.403	1.101	Not Significant

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between XI standard students from rural and urban area in their achievement in English.

Table 9. Relationship between Multiple Intelligence and Achievement in English of XI Standard Students

Multiple Intelligence and its Dimensions	Calculated value of 'γ'	Remarks at 5% level
Verbal Linguistic Intelligence	0.081	Not Significant
Logical Mathematical Intelligence	0.039	Not Significant
Visual Spatial Intelligence	0.001	Not Significant
Bodily Kinesthetic Intelligence	0.057	Not Significant
Musical Rhythmic intelligence	0.048	Not Significant
Interpersonal Intelligence	0.024	Not Significant
Intrapersonal Intelligence	0.145	Significant
Naturalistic Intelligence	0.077	Not Significant
Existential Intelligence	0.185	Significant
Multiple Intelligence	0.466	Significant

(At 5% level of significance for 298 df the table value of 'γ' is 0.113)

It is inferred from the above table that there is no significant relationship between verbal linguistic, logical mathematical, visual spatial, bodily kinesthetic, musical rhythmic, interpersonal, naturalistic intelligence and achievement in English of XI standard students, but there is significant relationship between intrapersonal, existential and multiple intelligence and achievement in English of XI standard students.

Findings

1. There is no significant difference between male and female XI standard students in their logical mathematical, visual spatial, bodily kinesthetic, musical rhythmic, interpersonal, intrapersonal, naturalistic and existential intelligence, but there is significant difference between male and female XI standard students in their verbal linguistic and multiple

intelligence. While comparing with female students, male students are better in their verbal linguistic and multiple intelligence.

2. There is no significant difference between arts group and science group XI standard students in their bodily kinesthetic, musical rhythmic, interpersonal, intrapersonal, naturalistic, existential and multiple intelligence, but there is significant difference between arts group and science group XI standard students in their verbal linguistic and logical mathematical intelligence. While comparing with arts group students, science group students are better in their verbal linguistic and logical mathematical intelligence.

3. There is no significant difference between XI standard students from rural and urban area in their verbal linguistic, logical mathematical, visual spatial, bodily kinesthetic, musical rhythmic, intrapersonal, naturalistic, existential and multiple intelligence, but there is significant difference between XI standard students from rural and urban area in their interpersonal intelligence. While comparing with rural students, urban students are better in their interpersonal intelligence.

4. There is significant difference between male and female XI standard students in their achievement in English. While comparing with male students, female students are better in their achievement in English.

5. There is significant difference between arts group and science group XI standard students in their achievement in English. While comparing with

science group students, arts group students are better in their achievement in English.

6. There is no significant difference between XI standard students from rural and urban area in their achievement in English.

7. There is no significant relationship between verbal linguistic, logical mathematical, visual spatial, bodily kinesthetic, musical rhythmic, interpersonal, naturalistic intelligence and achievement in English of XI standard students, but there is significant relationship between intrapersonal, existential and multiple intelligence and achievement in English of XI standard students.

Interpretations

The 't' test result reveals that the female students are better than the male students in their achievement in English. This may be due to the fact that the male students acquire the communicative knowledge very easily as they visit more places and persons due to their profession. They apply the learnt knowledge for a better achievement in English.

The 't' test result reveals that the arts group students are better than science group students in their achievement in English. This may be due to the fact that the arts group students understand the concept very quickly which increases their achievement in English. They compare the subject knowledge with their life to get a better result.

The 'γ' test result reveals that there is significant relationship between intrapersonal, existential, multiple

intelligence and achievement in English of XI standard students. This reflects that the students with intrapersonal and existential intelligences are very much concentrated to acquire multiple intelligence. These students can be the achiever in their achievement in English. So it is found that there is a positive significant relationship between intrapersonal intelligence, existential intelligence, multiple intelligence and achievement in English of XI standard students.

Recommendations

1. A full-time counsellor should be available on the school campus to develop intrapersonal intelligence among the students.
2. Group and team activities may be included in classroom language teaching.
3. Curriculum may be modified in such a way that we can give equal importance to all the dimensions of intelligences.
4. Innovative teaching strategies should be incorporated to develop multiple intelligence.
5. Discussions, debate and workshops may be conducted to develop the interpersonal communication skills in English.
6. Technological facilities like language laboratory, digital library, e-library and CAL could be incorporated in order to

develop verbal linguistic intelligence among the school students.
7. Students should be encouraged to learn English with a great interest. Also, English should be taught dramatically to increase the curiosity level.

Conclusion

To conclude, today's educational world it is very essential for each and every student should be all rounder. He must be well scrutinised by the education. The education imparted by the schools, should promote them to face all the circumstances to compete this world. Education should bring out students hidden talents and also develop them into intellectuals. Especially it is highly needed that higher secondary school students those who are preparing themselves for higher, professional education, they have to be very intelligent as well as talented in communicative English to survive in the society. A student with multiple intelligence can be successful in his society which makes him as a respectable person. In order to achieve in English language, a student should be well equipped in multiple intelligence. Therefore, the result of the present study finds out that there is a significant relationship between multiple intelligence and achievement in English of XI standard students.

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