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A study of mental ability of higher secondary students in Vellore district

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Abstract
The purpose of the paper is to determine the mental ability of higher secondary students in Vellore district of Tamilnadu. Thus the researcher felt the need to investigate the mental ability of higher secondary students indifferent categories of higher secondary students. From the total population, out of 280 samples the of 97 from boys, 113 girls and 70 from Coeducation of higher secondary students from the government, aided and private schools were selected to study. The results of the study indicated that higher secondary students from all the samples such as Gender, Type of School, locality of the School, Medium of School, Nature of School, Parental Occupation, Birth Order and Type of Family do not differ significantly towards mental ability.

Keywords: mental ability, students, Vellore district

Introduction
General mental ability is a concept rather than a power or a thing that can be observed. It abuses difficulty when its definition is attempted and it leads to a great variety of interpretations. Intelligence, as far as a layman is concerned, manifests itself in terms of how an individual behaves in society According to Stern (1914) [6], "Intelligence is the general capacity of an individual to consciously adjust his thinking to new requirements. It is general mental adaptability to new problems and conditions of life. Sternberg's (1985) [7] theory of intelligence contains three sub- theories, one about context, one about experience and one about cognitive components of information processing. The contextual sub-theory attempts to specify what would be considered intelligent in a given culture or content. According to Sternberg, culturally intelligent behaviour involves adapting to one's present environment, selecting a more optimal environment or respecting one's current environment. The theory claims that expression of any intelligent behaviour will be a function of experience one has with particular class of tasks being tested. According to McMillan (1990) [5] intelligence means the ability to reason and to profit by experience. An individual's level of intelligence is determined by a complex interaction between his heredity and environment. According to Gardeners (1999) theory of multiple intelligence, there are at least eight separate intelligences - logical, linguistic, spatial, bodily, kinesthetic, interpersonal, intrapersonal and naturalist. He has stressed that there may be more kinds of intelligence-eight is not a magic number. Recently, he has speculated that there may be spiritual intelligence and an existential intelligence or the abilities to contemplate big questions about the meaning of life. He says that individuals may excel in one of these eight areas but have no remarkable abilities in the other seven. So, if boys excel in math and science, it does not mean they are more intelligent than females. Gardener contends that intelligence is the ability to solve problems and create products or outcomes that are valued by culture.
In spite of its wide and common current usage and ancient roots, general mental ability is relatively a recent concept of psychology. Almost every writer on the subject has put forward his own definition and some in the fullness of time have offered even more than one. It is true that some of the apparent agreement is mainly verbal but many of them reflect fundamental differences of opinion concerning the concept of general mental ability.

Method of Investigation
The present study deals with the analyses of mental ability of higher secondary students in different systems, namely, Boys, Girls and Coeducation.

Variables
The variables chosen in the present study are mental ability of higher secondary students

Population and Sample Characteristics
The target population for the present study is the higher secondary students in different categories of schools following different systems of education at the Boys, Girls and Coeducation. From the target population a sample of 280 higher secondary students was chosen for the present study. The chosen sample comprised of 97 from boys, 113girls and 70 from Coeducation of higher secondary students from the government, aided and private schools were selected to study.

Research Tool Used
The research tool used for the present study to analyze the mental ability of students in different systems of education at the Boys, Girls and Coeducation are Manualfor the Dr. (Mrs) Rama Tiwari and Dr. Roma Pal

Objectives of the study
To investigate if there is any significant difference in mental

ability of higher secondary students in the following sub samples

- Gender : Male / Female
- Type of School : Government / Aided / Private
- Locality of the School : Rural / Urban
- Medium of School : Tamil / English
- Nature of School : Boys / Girls / Coeducation
- Parental Occupation : Monthly income / Self-employed
- Birth Order : 1st / 2nd / 3rd
- Type of Family : Joint / Nuclear

Hypotheses of the study

There is no significant difference in mental ability of higher secondary students in the following sub samples

- Gender : Male / Female
- Type of School : Government / Aided / Private
- Locality of the School : Rural / Urban
- Medium of School : Tamil / English
- Nature of School : Boys / Girls / Coeducation
- Parental Occupation : Monthly income / Self-employed
- Birth Order : 1st / 2nd / 3rd
- Type of Family : Joint / Nuclear

Analyses and Interpretation of Data

Gender and Mental ability

Table 1: 't' test among the gender with respect to mental ability

Gender	N	Mean	SD	't' Value	LS
Male	83	47.67	10.79	1.369	NS
Female	197	49.41	9.23		

From the table 1 we may infer that the calculated' value is 1.369 is less than the table (1.97) at 0.05 level. The above null hypothesis is accepted and research hypothesis is rejected. Hence there exists no significant difference between male and female higher secondary with regard to their mental ability.

Type of school and mental ability

Table 2: 'F' test among the sub sample of Types of School with respect to mental ability

Type of School	Sum of squares	DF	Mean Square	F Value	LS
Between the groups	166.815	2	83.408	0.879	N.S
Within groups	26290.385	277	94.911		
Total	26457.200	279			

It is evident from the table 2 the calculated 'F' value is 0.879, which is not significant at 0.05 level. The above null hypothesis is accepted and research hypothesis is rejected. It is inferred that there is no significant difference among the sub-sample of Type of School with respect to mental ability higher secondary students.

Locality of the school and mental ability

Table 3: 't' test among the locality of school with respect to mental ability

Locality of College	N	Mean	SD	't' Value	LS
Rural	177	48.72	9.23	0.398	**NS**
Urban	103	49.20	10.59		

From the table 3 we may infer that the calculated' value is 1.398is less than the table (1.97) at 0.05 level. The above null hypothesis is accepted and research hypothesis is rejected. Hence there exists no significant difference between rural and urban higher secondary students with regard to their mental ability.

Medium of school and mental ability

Table 4: 't' test among the medium of school with respect to mental ability

Medium of school	N	Mean	SD	't' Value	LS
Tamil	158	48.20	9.61	1.354	**NS**
English	122	49.79	9.86		

From the table 4 we may infer that the calculated' value is 1.354is less than the table (1.97) at 0.05 level. Therefore the above null hypothesis is accepted and research hypothesis is rejected. Hence there exists no significant difference between Tamil and English medium higher secondary students with regard to their mental ability.

Nature of school and mental ability

Table 5: 'F' test among the sub sample of Nature of school with respect to mental ability

Nature of School	Sum of Squares	DF	Mean Square	F Value	LS
Between the groups	157.144	2	78.572	0.828	N.S
Within groups	26300.056	277	94.946		
Total	26457.200	279			

It is evident from the table 5 the calculated 'F' value is 0.828 which is not significant at 0.05 level. Hence the framed null hypothesis was accepted. It is inferred that there is no significant difference among the sub-sample of nature of school with respect to mental ability higher secondary students.

Parental Occupation and mental ability

Table 6: 't' test among the sub sample of parental occupation with respect to mental ability

Parental Occupation	N	Mean	SD	't' Value	LS
Monthly income	186	48.52	9.61	0.902	**NS**
Self employ	94	49.63	9.98		

From the table 6 we may infer that the calculated' value is 0.902is less than the table (1.97) at 0.05 level. Therefore the above null hypothesis is accepted and research hypothesis is rejected. Hence there exists no significant difference between monthly income and self employ of parental occupation among higher secondary students with regard to their mental ability.

Birth order and mental ability

Table 7: 'F' test among the sub sample of birth order with respect to mental ability

Birth order	Sum of squares	DF	Mean square	F Value	LS
Between the groups	16.105	2	8.053	0.084	N.S
Within groups	26441.095	277	95.455		
Total	26457.200	279			

It is evident from the table 7 the calculated 'F' value is 0.084 which is not significant at 0.05 level. Hence the framed null hypothesis was accepted. It is inferred that there is no significant difference among the sub-sample of birth order of higher secondary students with respect to mental ability.

Type of family and mental ability

Table 8: 't' test among the type of family with respect to mental ability

Type of family	N	Mean	SD	't' Value	LS
Joint	57	48.52	9.61	0.902	**NS**
Nuclear	223	49.63	9.98		

From the table 8 we may infer that the calculated' value is 0.902 is less than the table (1.97) at 0.05 level. The above null hypothesis is accepted and research hypothesis is rejected. Hence there exists no significant difference between Joint and Nuclear family with higher secondary students with regard to their mental ability.

Major findings of the study

1. There exists no significant difference between male and female higher secondary with regard to their mental ability.
2. It is inferred that there is no significant difference among the sub-sample of Type of School with respect to mental ability higher secondary students.
3. There exists no significant difference between rural and urban higher secondary students with regard to their mental ability.
4. There exists no significant difference between Tamil and English medium higher secondary students with regard to their mental ability.
5. It is inferred that there is no significant difference among the sub-sample of nature of school with respect to mental ability higher secondary students.
6. There exists no significant difference between monthly income and self employ of parental occupation among higher secondary students with regard to their mental ability.
7. There is no significant difference among the sub-sample of birth order of higher secondary students with respect to mental ability.
8. There exists no significant difference between Joint and Nuclear family with higher secondary students with regard to their mental ability.

References

1. Best John W, Khan James V. Research in Education, Tenth Edition, New Delhi. Prentice Hall of India Private Ltd, 2008.
2. Garrett Henry, Wood Worth RS. Statistics in Psychology and Education, Surjeet Publications Ltd, New Delhi, 2008.
3. Guilford JP. Fundamental Statistics in Psychology and Education New York, Mc Graw-Hill Book Company, Inc, 1956.
4. Lokesh Kovl. Methodology of Educational Research (2nd ed) New Delhi, Vikas Publishing house Pvt. Ltd, 1990.
5. McMillan DB. Dictionary of Psychology. London: McMillan Press Ltd, 1990.
6. Stern, William. Barth, original German edition, Method Intelligence zprüfung: und Amending an Schulkindern. The Psychological Methods of Testing Intelligence, 1914.
7. Sternberg RJ. Beyond IQ: A Triarchic Theory of Intelligence. Cambridge: Cambridge University Press, 1985.