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Relationship between Achievement Test & Deviation I.Q. of Learning Disabilities in North 24 Parganas, West Bengal

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A B S T R A C T

Learning Disabilities are traditionally diagnosed by conducting two tests and noticing a significant discrepancy between their scores. These tests are an intelligence (or IQ) test and a standardized achievement test. Most children found to have a learning disability have normal or above-normal intelligence but do not fully demonstrate that potential on achievement test. This paper presents a relation between I.Q. and Achievement in Physical Science in case of Learning Disabilities.Sixty sample from two schools of north 24 parganas, West Bengal are taken for this study (thirty male and thirty female students of them thirty are urban (s1) and thirty are rural (s2). Variables are IQ & Achievement; male & female; rural & urban. Random sampling technique is used. Method adapted is survey. As statistical technique mean, rank difference and graphical re-presentations are used.

Keywords: Deviation IQ, Achievement in Physical Science, Rank Difference, Co-Relation, Learning Disabilities.

1. Introduction

The term learning disability indicates limited ability in learning. It refers to retardation, disorder or delayed development in any one or more processes of speech, language, reading, spelling, writing or arithmetic. Although a learning disability may occur concomitantly with other handicapping conditions (e.g. sensory impairment, mental retardation and emotional disturbance) or environmental influences (e.g. cultural difference, insufficient and inappropriate instructions, psychological factors) but it is not the direct result of the conditions or influences.

Students having learning disabilities can seem scarcely at initial condition. But it has not related to person's intelligence or motivation. Children with learning disabilities are not lazy or dumb at all. Too many successful people such as *Thomas Alva Edison, Alexander Graham Bell, Walt Disney, Winston Churchill,* Steven Spielberg, Steve Jobs and many more famous persons have suffered from learning disabilities.

Learning disabilities arise from neurological differences in brain structure and function and affect a person's ability to receive, store, process, retrieve or communicate information. Frequently, learning disabilities are not detected before children start school. Many students with learning disabilities display no signs of difficulty, except when they attempt the specific academic tasks that challenge their particular area of cognitive processing difficulty. Intelligence tests measure thinking and problem-solving skills. They can show what a child's intellectual potential is. Achievement tests measure what that child knows and can actually do. A statistically significant difference between ability and achievement generally points to a learning disability. A formal psychological evaluation examines discrepancies between ability (IQ) and achievement to determine if a learning disability exists and to what severity. This paper presents the relationship between deviation I.Q and Achievement in Physical Science of secondary students in case of Learning disabilities.

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2. Review of Related Literature

The review of the relevant literature is considered as one of the most vital stage in the research process. It is very essential and it plays a significant role in research work.

Christopher R. Niileksela et al (2014) conducted a study to find out relations between learning disability and different latent cognitive abilities. The latent cognitive abilities like global intelligence, broad cognitive abilities and specific abilities were based on Cattell- horn- Carroll theory of intelligence, also called as CHC theory. A multiple–indicator multiple cause models were created using the data from Differential Ability Scales(DAS-II).This was designed to check the latent mean differences in cognitive abilities between two groups, children with and without learning disability. Both the groups statistically differed in the global intelligence factor. Differences in specific cognitive ability were also seen. Children having difficulty in Math showed lower scores in space relations and numerical facility whereas children with reading and writing difficulty showed lower scores on visual memory.

Gupta and Tyagi (2014) tested the effectiveness of computer-assisted instruction on achievement in Biology among Senior Secondary School students. The result of the study revealed that post-test achievement scores of the experimental group were substantially higher than control group students. So, they concluded that computer-assisted instruction is effective in enhancing the achievement of students.

Stephen, Sowmya, and Senthil kumar (2014) tested the effect of computer-assisted instructional package as a self-learning material in learning English grammar. They concluded that the package developed by them for eighth standard students is an effective and appropriate one for use as a supportive material to teach English language.

Boyle & Rivera (2012) explored three different note-taking techniques used by students during lectures and the study included 125 students of varying disabilities. Findings showed that the reliability and accuracy of reported observations of students that use note-taking strategies was improved in scores of measures.

Recently, many Indian Schools have equipped their classrooms with audio-visual systems that allow display of different types of educational videos, educational slides, internet pages, and interaction with commonly used software such as Microsoft Office. These classrooms are called ―smart classrooms, or multimedia lecture halls, or electronic classrooms. Our goal is to build new teaching and learning experiences by convergence of machine, digital and network technologies.

3. Objectives & Hypotheses

3.1 Objectives

To study

i) the relationship between deviation IQ and Achievement in Physical Science of Secondary level in case of urban and rural students with reference to learning disabilities.

ii) the relationship between deviation IQ and Achievement in Physical Science of Secondary level among total male and female students of the two schools (S1 & S2) with reference to learning disabilities.

iii) the relationship between deviation IQ and Achievement in Physical Science of Secondary level among male and female students of each school.

3.2 Hypotheses

H01: There exists no significant relationship between deviation IQ and Achievement in Physical Science of secondary level in case of urban and rural students with reference to learning disabilities.

H02: There exists no significant relationship between deviation IQ and Achievement in Physical Science of secondary level among total male and female students of the two schools with reference to learning disabilities.

H03: There exists no significant relationship between deviation IQ and Achievement in Physical Science of secondary level among male and female students of each school (i.e. S1 & S2).

4. Methodology

4.1 Population: A population is the entire set of individuals or objects having some similar characteristics selected for a research study. A research population is typically the primary subject of a scientific experiment, a broad number of people or artifacts.

In the present study all students, who were dull average (i.e. Deviation I.Q. Limit < 90), studying in class X of recognized government sponsored high school in North 24 parganas, West Bengal, were considered as population for this study.

4.2 Sample: The investigator visited various Government Sponsored high schools of the district of North 24 parganas, West Bengal, for his research purpose. He discussed about the study and purpose with the Head of Institution of those schools. Two school was randomly chosen from four schools utilizing random data collection sampling techniques and from there the investigator got positive response for conducting the study where the condition

was also quite suitable for the experiment. The name of the schools from which the sample was taken was 'Madhabpur Prahlad Smriti Vidyapith (H.S.)' and 'Teghoria Sashi Bhusan High School (H.S.)'. These schools were situated in North 24Parganas district, West Bengal, India.
Sixty students from two schools (S1 & S2) of rural and urban area were taken. Fifteen male and fifteen female students were taken from each school.

4.3 Method: Experimental method was adopted for this study. This method is a systematic and scientific approach to research in which the researcher manipulates one or more variables, and controls and measures any change in other variables, for this reason the investigator select this method.

4.4 Variables:

4.4.1 Dependent Variables: Achievement test in Physical Science of secondary level,

4.4.2. *Controlled Variable*: Deviation I.Q.

4.4.3 *Categorical Variables*: The categorical variable is one which may be assigned to a certain group or nominal category on the basis of a specific qualitative property, by a limited and usually fixed number of possible values (Yates, Daniel S.; Moore, David S.; Starnes, Daren S. (2003). In this study, the categorical variables are Boys, Girls.

4.5 Tools & Techniques: Measuring tools:

1. Instructional tools: The tools that can be used in the classroom to support student learning is called Instructional tools. In this present study the researcher used following instructional tools:

i) Technology Based classroom (smart) tools:

- Projector and screen
- Cordless microphone with Sound box
- Desktop computer (monitor, keyboard, mouse etc.)
- Internet connection

2. Measuring tools : In this article two measuring tools were used.

i) Mixed Type Group Test of Intelligence (MGTI-M) by Dr. P. N. Mehrotra (2008).

ii) Achievement Test to measure achievement of the students in Physical Science.

i) Mixed Type Group Test of Intelligence (MGTI-M) by Dr. P. N. Mehrotra (2008): This test can be used on school going pupils between 11 to 17 years. This test has been constructed on the lines of Wechsler—Bellevue Scale of Intelligence. The author has included ten sub-tests, five each in verbal and non-verbal tests, in this test.
VERBAL TESTS includes – 1. Analogy test, 2. Number-series test, 3. Classification test, 4. Vocabulary test, 5. Reasoning test.
NON-VERBAL TESTS includes – 1. Analogy test, 2. Arrangement test, 3. Classification test, 4. Digit-symbol test, 5. Part-fitting test.
All these sub-test are mostly saturated with 'g' factor.
The present test, thus, consists of two tests, i.e., verbal and non-verbal. These tests contain five sub-tests each. Under each test there are fifty items organized in an omnibus selective form. Since the test consists of two types, i.e., verbal and non-verbal, it is conveniently called a mixed test of intelligence.
ii) Teacher made Achievement Test in Physical Science of Secondary level students (Made by the investigators). According to the requirement of the study the researcher could not found an appropriate and suitable standardized achievement test for Physical Science of class X in secondary level. Therefore, he decided to develop an appropriate achievement test in Physical Science of class X, to evaluate the students' comprehension, knowledge, skill and application on the three topics according to the syllabus of class X under W.B.B.S.E. (West Bengal Board of Secondary Education). To develop the Achievement Test the subject (i.e. Physical Science) professional and the expert opinion helped the researcher.
For the present study, one hundred multiple choice questions were prepared by the researcher for Achievement Test of Physical Science of class X. The Achievement test covered the entire essential field of lessons. Four options were given for each question and only one option was correct. The students had to tick mark the correct option and on the basis of their answers the marks were given.

4.6 Statistical Analysis: For the analysis of data depending on the objectives and goals of the research, the following statistical methods have been used in the present study.
Descriptive statistics such as central trend indicators such as Mean and Standard Deviation and Rank Difference co-relation have been calculated to assess the significance of the event.

4.7 Procedure:

1) The present test of Intelligence consists of a work of 20 minutes only (10 minutes each for verbal and non-verbal test). This test was administered by the investigator within a period of one and half hour in class-X of two schools, consisting of thirty students in each school. 2) Teacher made Achievement Test of Physical Science (Objective Type, F. M. - 100, Time – 1 hour) was administered by the investigator in class-x of two schools, consisting of thirty students in each school. Students are selected from the schools (S1 school and S2 school) randomly.

4.8 Collection of Data: The scores of Deviation I.Q. of Verbal Test and Non-Verbal test of S1 & S2 schools are:

Table 1 - S1 school (URBAN) and S2 school (RURAL), (Category – Male & Female):

CN = Stands for Code Number of students AT= Stands for Achievement Test Score

IQ = Stands for Intelligence Quotient Score

IQ = Stands for Intelligence Quotient Score

S1 School (Total Students)								S2 School (Total Students)						
CN	**AT**	**IQ**		**CN**	**AT**	**IQ**		**CN**	**AT**	**IQ**		**CN**	**AT**	**IQ**
01	36	41		16	46	42		01	42	39		16	36	28
02	25	30		17	56	52		02	44	37		17	25	18
03	33	38		18	54	48		03	41	34		18	33	27
04	34	40		19	53	48		04	39	31		19	34	28
05	32	38		20	31	38		05	28	22		20	32	29
06	26	32		21	35	40		06	29	24		21	26	22
07	29	35		22	30	36		07	38	30		22	29	23
08	25	31		23	27	31		08	28	24		23	25	20
09	29	34		24	23	29		09	29	24		24	29	24
10	29	33		25	24	31		10	38	31		25	34	27
11	33	40		26	28	34		11	37	30		26	46	36
12	34	33		27	22	29		12	35	28		27	22	18
13	32	38		28	17	22		13	30	25		28	31	26
14	40	42		29	21	24		14	24	18		29	35	28
15	20	24		30	18	21		15	28	22		30	27	22

Table 2 - S1 school (URBAN); (Category – Male and Female)

CN = Stands for Code Number of students AT= Stands for Achievement Test Score

IQ = Stands for Intelligence Quotient Score

S1 School (Category – Male & Female)																
MALE	CN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	AT	36	25	33	34	32	26	29	25	29	29	33	34	32	40	20
	I.Q	41	30	38	40	38	32	35	31	34	33	40	33	38	42	24
FEMALE	CN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	AT	46	56	54	53	31	35	30	27	23	24	28	22	17	21	18
	I.Q	42	52	48	48	38	40	36	31	29	31	34	29	22	24	21

Table 3 - S2 school (URBAN); (Category – Male and Female)

CN = Stands for Code Number of students AT= Stands for Achievement Test Score IQ = Stands for Intelligence Quotient Score

S2 School (Category – Male & Female)																
MALE	CN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	AT	42	44	41	39	28	29	38	28	29	38	37	35	30	24	28
	I.Q	39	37	34	31	22	24	30	24	24	31	30	28	25	18	22
FEMALE	CN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	AT	36	25	33	34	32	26	29	25	29	34	46	22	31	35	27
	I.Q	28	18	27	28	29	22	23	20	24	27	36	18	26	28	22

Table 4 – S1 school (URBAN) and S2 school (RURAL); (Category – Total Male)

CN = Stands for Code Number of students AT= Stands for Achievement Test Score IQ = Stands for Intelligence Quotient Score

S1 school (URBAN) and S2 school (RURAL); (Category – Total Male)																
MALE	CN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	AT	36	25	33	34	32	26	29	25	29	29	33	34	32	40	20
	I.Q	41	30	38	40	38	32	35	31	34	33	40	33	38	42	24
	CN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	AT	42	44	41	39	28	29	38	28	29	38	37	35	30	24	28
	I.Q	39	37	34	31	22	24	30	24	24	31	30	28	25	18	22

Table 5 – S1 school (URBAN) and S2 school (RURAL); (Category – Total Female)

CN = Stands for Code Number of students AT= Stands for Achievement Test Score IQ = Stands for Intelligence Quotient Score

S1 school (URBAN) and S2 school (RURAL); (Category – Total Female)																
FEMALE	CN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	AT	46	56	54	53	31	35	30	27	23	24	28	22	17	21	18
	I.Q	42	52	48	48	38	40	36	31	29	31	34	29	22	24	21
	CN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	AT	36	25	33	34	32	26	29	25	29	34	46	22	31	35	27
	I.Q	28	18	27	28	29	22	23	20	24	27	36	18	26	28	22

Table 6 (Statistical Table)

S1 school (URBAN) and S2 school (RURAL), (Total students including All Male & Female):

S1 School (All Male & Female)					**S2 School (All Male & Female)**			
Mean Achievement	Mean I.Q.	Mean Deviation of I.Q.	**ρ (Rank difference co-elation)**		Mean Achievement	Mean I.Q.	Mean Deviation of I.Q.	**ρ (Rank difference co-elation)**
31.4	35.1	89	0.99		32.5	26.5	81	0.98

Table - 7 (Statistical Table)

S1 school (URBAN); (Category - Male & Female):

S1 School (Male)					**S1 School (Female)**			
Mean Achievement	Mean I.Q.	Mean Deviation of I.Q.	**ρ (Rank difference co-elation)**		Mean Achievement	Mean I.Q.	Mean Deviation of I.Q.	**ρ (Rank difference co-elation)**
30.5	35.3	89	0.89		32.3	35	89	0.99

Table - 8 (Statistical Table)

S2 school (RURAL); (Category - Male & Female):

S2 School (Male)					**S2 School (Female)**			
Mean Achievement	Mean I.Q.	Mean Deviation of I.Q.	**ρ (Rank difference co-elation)**		Mean Achievement	Mean I.Q.	Mean Deviation of I.Q.	**ρ (Rank difference co-elation)**
34	27.9	82	0.98		30.9	25	80	0.94

Table - 9 (Statistical Table)

S1 school (URBAN) and S2 school (RURAL), (Category – Total Male + Total Female)

S1 + S2 School (Total Male)					**S1 +S2 School (Total Female)**			
Mean Achievement	Mean I.Q.	Mean Deviation of I.Q.	**ρ (Rank difference co-elation)**		Mean Achievement	Mean I.Q.	Mean Deviation of I.Q.	**ρ (Rank difference co-elation)**
32.23	31.6	85	0.56		31.63	30.03	84	0.67

Graph – 1: S1 school (URBAN); (Total Students – Male and Female)

Relationship between Deviation I.Q. and Achievement in Physical Science of Secondary Students in Case of Learning

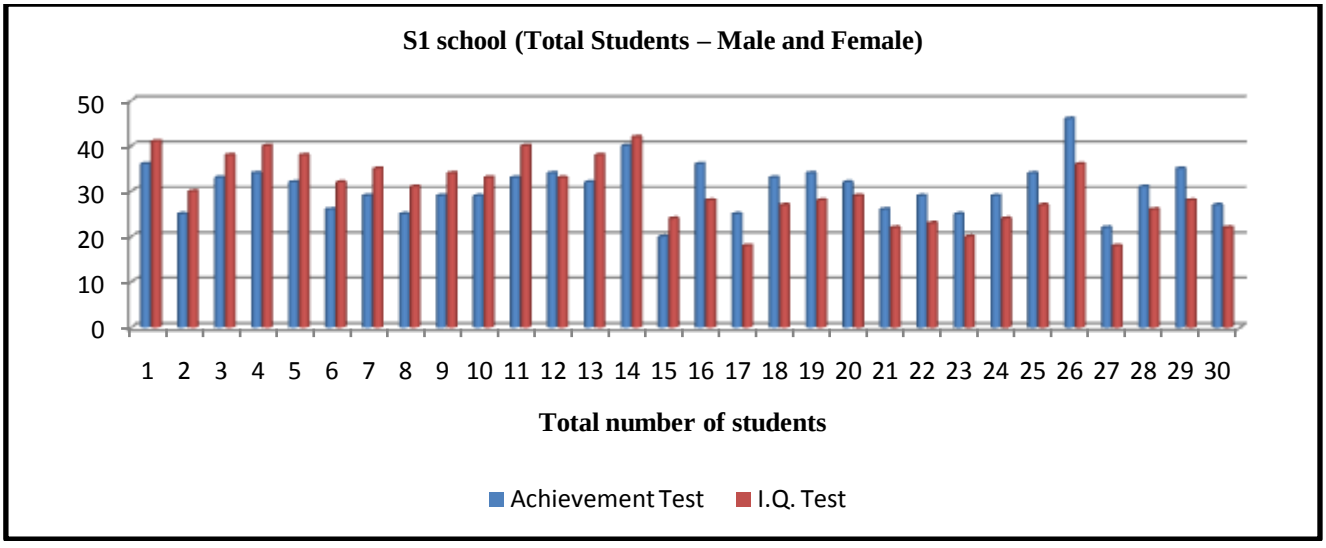

Fig. - 1

Graph – 2: S2 school (RURAL); (Total Students – Male and Female)

Relationship between Deviation I.Q. and Achievement in Physical Science of Secondary Students in Case of Learning

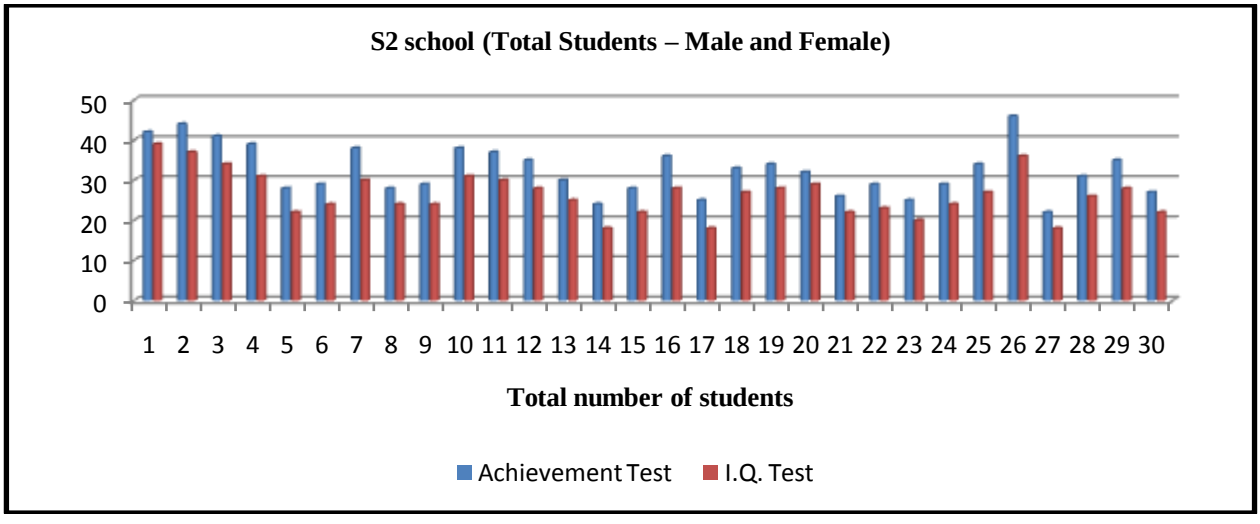

Fig. – 2

Graph – 3: S1 school (URBAN); (Category – Male)

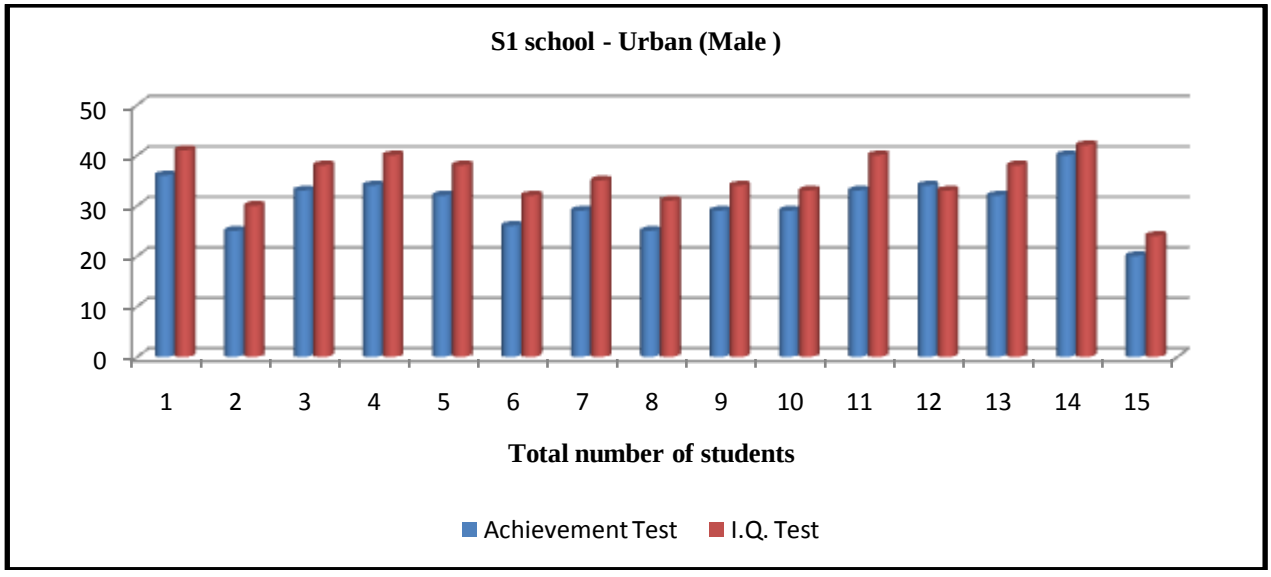

Fig. - 3

Graph – 4: S1 school (URBAN); (Category – Female)

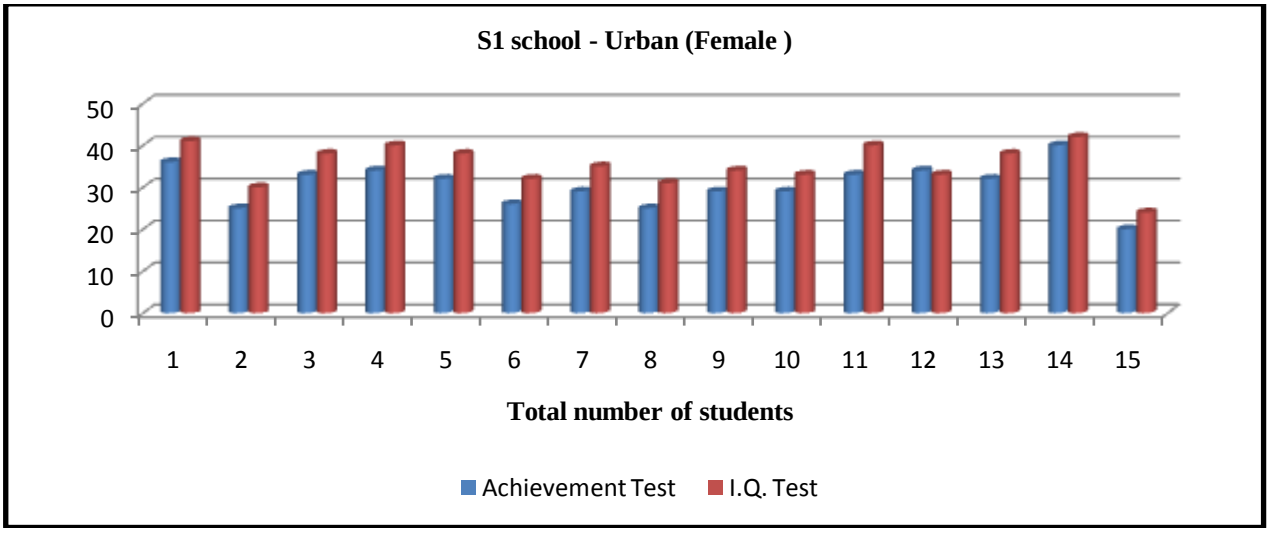

Fig. - 4

Graph – 5: S2 school (RURAL); (Category – Male)

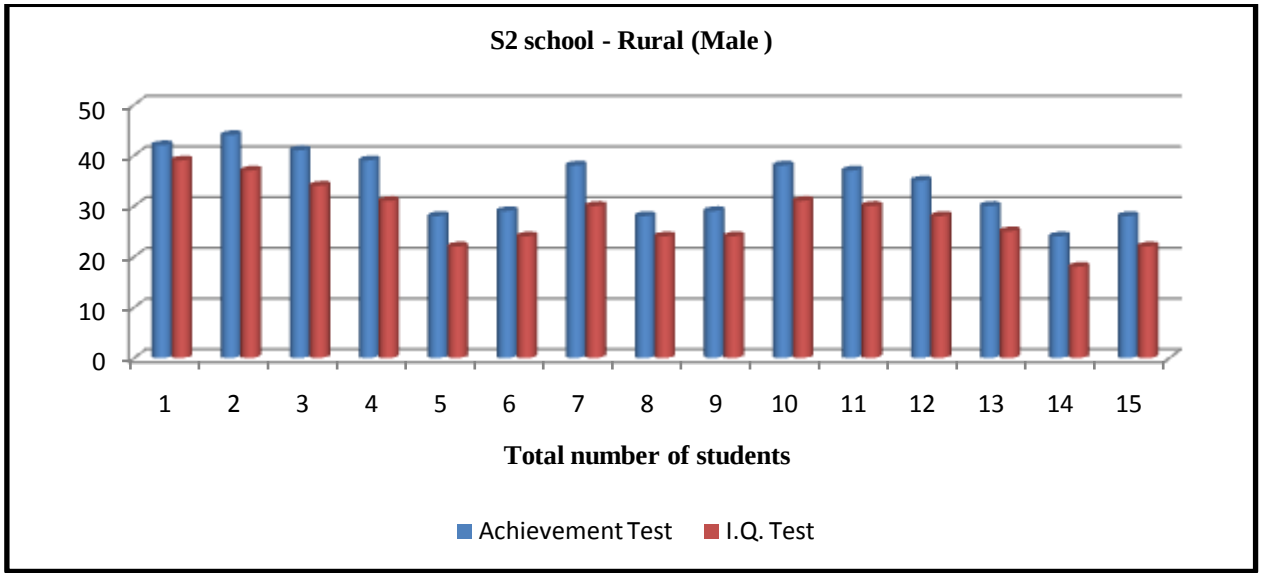

Fig. - 5

Graph – 6: S2 school (RURAL); (Category – Female)

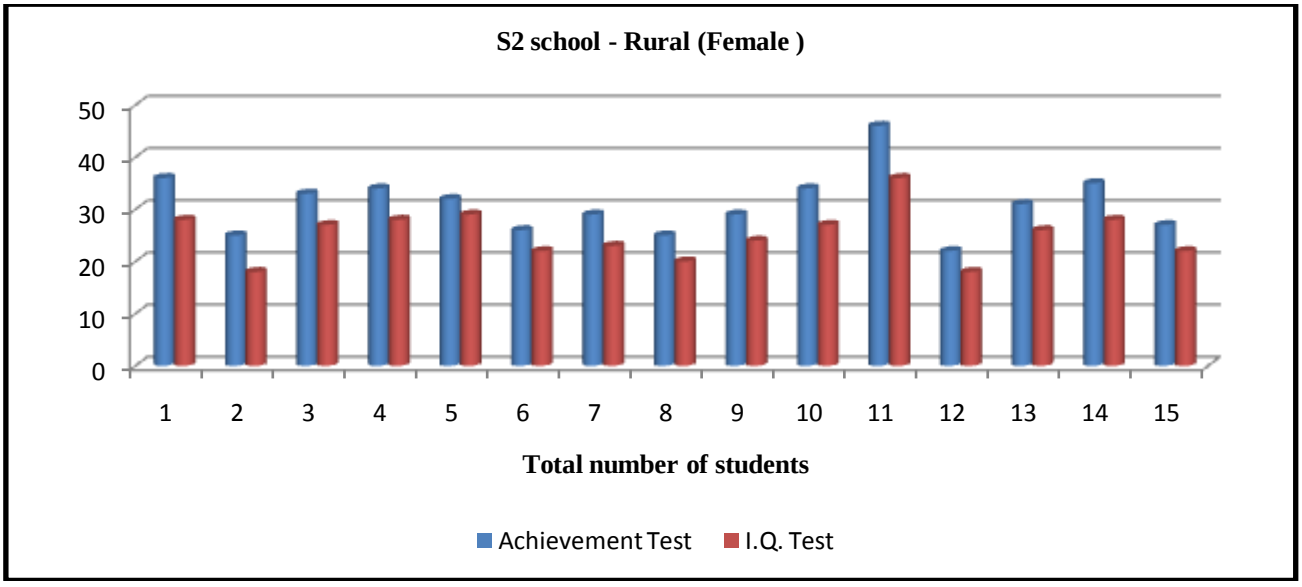

Fig. - 6

Graph – 7: S1 & S2 school (URBAN + RURAL); (Category – Total Male)

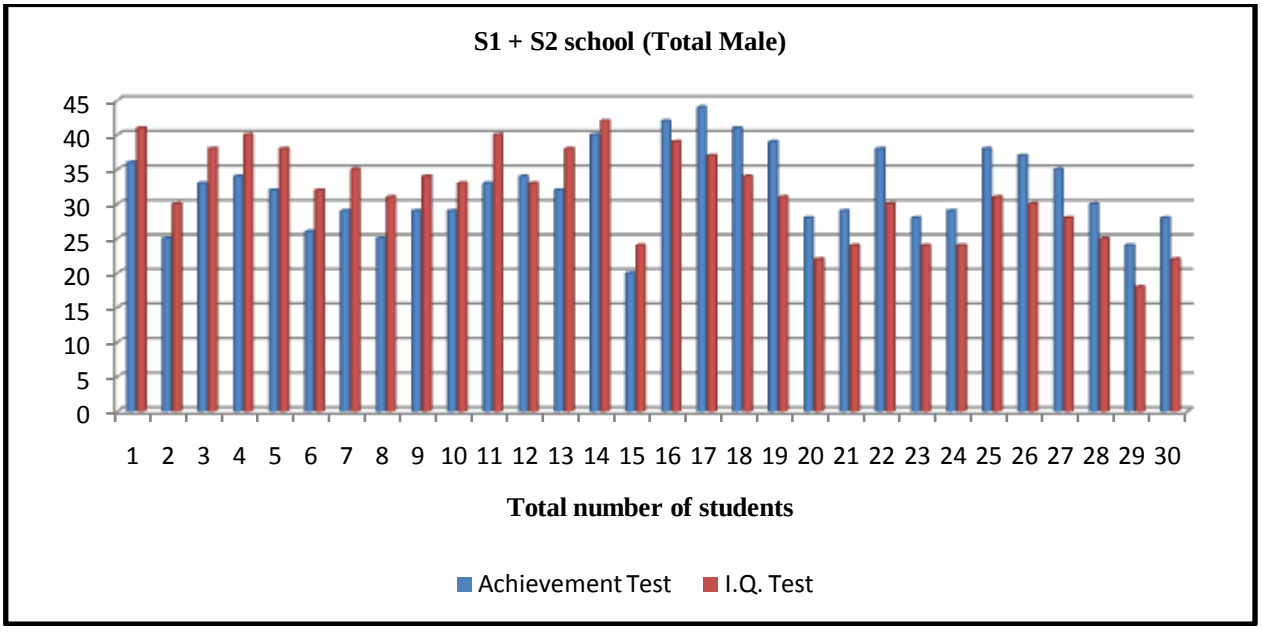

Fig. -7

Graph – 8: S1 & S2 school (URBAN + RURAL); (Category – Total Female)

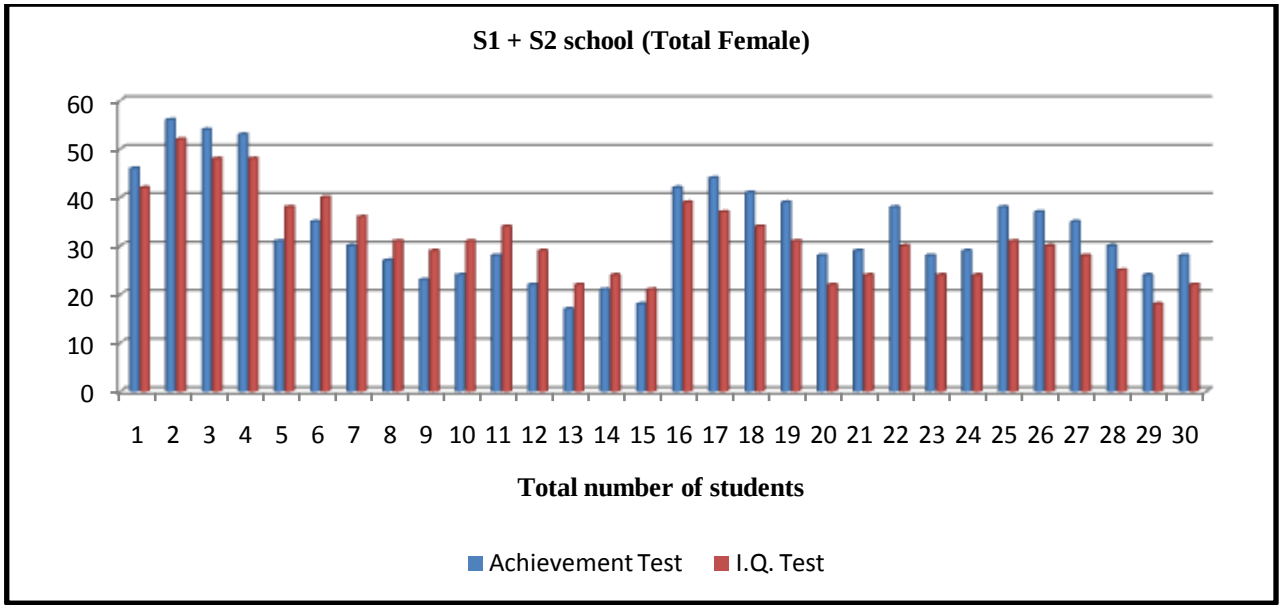

Fig. - 8

5. Interpretation of Data

From Table -1 represents the Data containing Achievement in Physical Science of secondary level and IQ of total students (both Male and Female) of S1 School (Urban) and S2 School (Rural), Table – 2 represents the Data containing Achievement and IQ of students of S1 School (Urban), Table – 3 represents the Data containing Achievement and IQ of students of S2 School (Rural), Table – 4 represents the Data containing Achievement and IQ of students (total male students) of S1 School (Urban) and S2 School (Rural), Table – 5 represents the Data containing Achievement and IQ of students (total Female students) of S1 School (Urban) and S2 School (Rural).

From Table – 6 it is found that Mean Achievement in Physical Science of secondary level in case of total students S1school (Urban) is less than Mean Achievement in Physical Science in case of total students S2 school (Rural) but Mean IQ and Mean Deviation of IQ in case of S1school (total students) are less than S2 school total students. It is also found that Rank correlation for total students of both School are highly significant (ρ=0.99 for male and ρ=0.98 for female). From the mean deviation IQ values of total students of S1 school and S2 school are Dull Average (80-90) (obtained from the table of the Mixed Type Group Test of Intelligence). From Statistical Table - 7 it is found that Mean Achievement in Physical Science in case of S1 school (Urban) Male is less than S1 school Female but mean IQ of S1 school Male is somewhat greater than mean IQ of Female students of the same school. Mean Deviation of IQ in case of S1 school of male and female students are almost equal. It is also found that rank correlation values of both male and female students are also highly significant (ρ=0.89 for male and ρ=0.67 for female). From the table of the Mixed Type Group Test of Intelligence the nature of both male and female students of S1 school is Dull Average (80-90). From Statistical Table - 8 it is found that Mean Achievement in Physical Science in case of S2 school (Rural) Male is greater than S2 school Female but mean IQ of S2 school Male are greater than mean IQ of Female students of the same school. Mean Deviation of IQ in case of S2 school of male students is greater than female students. Rank co-relation values of both male and female students of S2 school are also highly significant (ρ=0.98 for male and ρ=0.94 for female). From the table of the Mixed Type Group Test of Intelligence the nature of both male and female students of S1 school is Dull Average (80-90). From Table – 9 it is found that Mean Achievement in Physical Science in case of Total

Male students of both schools (S1+S2) is greater than Mean Achievement in Physical Science in case of both school (S1 +S2) but Mean IQ and Mean Deviation of IQ in case of Male Students of both schools are higher than total Female students of both schools. It is also found that Rank co-relation for total students of both School are average (ρ=0.56 for total male and ρ=0.67 for total female). From the mean deviation IQ values of total students of S1 school and S2 school are Dull Average (80-90) (obtained from the table of the Mixed Type Group Test of Intelligence).

From **Fig. – 1** it is found that for S1 school (Total Students - Urban) most of the cases value of IQ is slightly greater than value of Achievement in Physical Science.

Fig. – 2 represents that value of IQ is slightly less than value of Achievement in Physical Science for S2 school (Total Students – Rural).

Fig. – 3 shows that the IQ values of Urban Boys (S1 school) is slightly greater than the value of achievement in Physical Science.

From **Fig. – 4** it is found that except that first four cases the IQ values of Urban girls (S1 school) is slightly greater than the value of achievement in Physical Science.

Fig. – 5 represents that value of IQ is slightly less than value of Achievement in Physical Science for S2 school (Rural – Boys).

Fig. – 6 shows that value of Achievement in physical Science is slightly greater than value of IQ for all rural girls (S2 school).

Fig. – 7 shows that the values of IQ for first 15 girls' students are slightly greater than values of Achievement in Physical Science and for the rest 15 girls' students' value of Achievement in Physical Science is slightly than IQ value (All boys students – S1&S2 schools).

Fig. – 8 shows that the value of Achievement for first 4 students and last 15 students are slightly greater than that of IQ values (All girls students – S1&S2 schools).

6. Findings of the Study

1. It is found that Mean Achievement in Physical Science of secondary level in case of total students S1school (Urban) is less than Mean Achievement in Physical Science in case of total students S2 school (Rural) but Mean IQ and Mean Deviation of IQ in case of S1school (total students) are less than S2 school total students. It is also found that Rank correlation for total students of both School are highly significant (ρ=0.99 for male and ρ=0.98 for female). From the mean deviation IQ values of total students of S1 school and S2 school are Dull Average (80-90) (obtained from the table of the Mixed Type Group Test of Intelligence).
2. It is also found that Mean Achievement in Physical Science in case of S1 school (Urban) Male is less than S1 school Female but mean IQ of S1 school Male is somewhat greater than mean IQ of Female students of the same school. Mean Deviation of IQ in case of S1 school of male and female students are almost equal. It is also found that rank correlation values of both male and female students are also highly significant (ρ=0.89 for male and ρ=0.67 for female). From the table of the Mixed Type Group Test of Intelligence the nature of both male and female students of S1 school is Dull Average (80-90).
3. It is found that Mean Achievement in Physical Science in case of S2 school (Rural) Male is greater than S2 school Female but mean IQ of S2 school Male are greater than mean IQ of Female students of the same school. Mean Deviation of IQ in case of S2 school of male students is greater than female students. Rank co-relation values of both male and female students of S2 school are also highly significant (ρ=0.98 for male and ρ=0.94 for female). From the table of the Mixed Type Group Test of Intelligence the nature of both male and female students of S1 school is Dull Average (80-90).
4. It is found that Mean Achievement in Physical Science in case of Total Male students of both schools (S1+S2) is greater than Mean Achievement in Physical Science in case of both school (S1 +S2) but Mean IQ and Mean Deviation of IQ in case of Male Students of both schools are higher than total

Female students of both schools. It is also found that Rank co-relation for total students of both School are average (ρ=0.56 for total male and ρ=0.67 for total female). From the mean deviation IQ values of total students of S1 school and S2 school are Dull Average (80-90) (obtained from the table of the Mixed Type Group Test of Intelligence).

7. Recommendations For Further Study

1. Just 60 students participated in the present study. On a wider sample it can also be repeated.
2. More variables such as culture, language, interest and behaviors can be used to carry out such research.
3. More software's should be prepared to improve Achievement for all the science subjects related to all the levels.
4. The current study was limited to only class X students. It can also be achieved at other stages of grade.
5. The present study has been conducted on Physical Science of Class-X students only; further study can be done on this same subject from other classes also.
6. The present study has been tried out in limited area (i.e. rural area of north 24 parganas, West Bengal). So it can be carried out in different areas of the state for its validation.

8. Conclusion

From the Interpretation of the data which are represented by different Tables and Figures, it is concluded that a) the relationship between IQ and Achievement in case of urban and rural students with reference to learning disabilities, b) the relationship between IQ and Achievement among total male and female students of the two schools with reference to learning disabilities, c) the relationship between IQ and Achievement among male and female students of each school are highly positive (Rank different co-relation values). All the students (S1 & S2 school, Rural and Urban) are dull average.
The opinion of the investigators are i) to teach the students in Physical Science by proper Teaching Method like Power Point presentation and experimentation. ii) to apply continuous evaluation process for the improvement in Achievement test.

REFERENCES

[1] Benjamin J. Sadock, Virginia A. Sadock, Pedro Ruiz, Kaplan & Sadock's Study *Guide and Self-Examination Review in Psychiatry*, 2011
[2] Mangal. S.K., *Statistics in Psychology and Education*, 2nd Edition, PHI Learning Private Limited, New Delhi – 110001, 2012.
[3] Mehrotra, P. N., *Mixed Type Group Test of Intelligence (Verbal & Non-verbal)*, Moradabad,2008
[4] https://en.wikipedia.org/wiki/Learning_disability
[5] https://www.healthychildren.org/English/health-issues/conditions/learningdisabilities/Pages/