Academic Achievement in Science of High School Students In Trichy District

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Abstract

Science education is globally acknowledged as an essential tool for individual and societal development at large. Science is one of the basic subjects in all sphere of endeavor. Thus in this study the researcher has taken a topic on "Academic achievement in science of high school students in Trichy District". The sample of the study was done totally on 700; 350 boys and 350 girls of 9th standard students from different schools. The selection was done at 4 from urban and 4 from rural schools respectively. The reliability of the Academic Achievement scale **(AAS)** was calculated as 0.82. The results indicated a significant difference in terms of gender and locality with respect to their academic achievement in science.

Introduction

In the words of Swami Vivekananda "Arise, awake and stop not till the goal is reached". Academic achievement is the educational goal of achievement of what they do in a class, in a laboratory, library or fieldwork etc and not other fields like extracurricular activities and it is measured by examinations or continuous assessments. It is an important aspect in the life of a child. This academic achievement of the child is assessed by the teachers in the educational progress with regard to the level of his intelligence, attainment, attitudes and interest. Science education involves developing skills and knowledge to investigate the living, physical, material and technological components of the environment and to make sense of them in logical and creative ways. These approaches can help to teach science lessons in a proper way through which students can gain knowledge on the science subject. Therefore, the teacher has a vital role to play in the development of achievement in science subject. The development of a positive attitude towards the subject is being studied as possibly one of today's most prevalent educational goals.

Teachers as well as parents believe that students' attitudes towards a school subject will affect that student's achievements in the subject (Griffin, 2015). Therefore it is an essential for school students to attain higher level of academic achievement and show their competency in science.

Need and significance of the present study

'Understanding is better than having silver or gold. Nice and expensive items can be enjoyable, but there are very few things in life that can never be taken away, will never go out of style and that to make you a better [Bible, proverbs 16:16]. An education is one of those things. At present, academic achievement has become the main aim of education which results job oriented mind set than holistic matured approaches in life. Therefore, Education should inculcate noble human values through various activities along with the normal curriculum.

Adolescence is a period during which we can see capacities in the fullest form. Therefore teachers and parents should take high interest to strengthens the individual ability and fulfill their needs and demands in the present society. An individual achievement, there are number variables like home, school and society for the development. Among them, home plays an important role in the early period of children to motivate and develop their personalities. Teachers' and parents' guidance to the child is needed for high achievement in academic matters. While doing so, the high school students are matured to attain higher level of academic performance and channelize their energy in right direction.

OBJECTIVES OF THE STUDY

To study the Academic Achievement level of high school students in trichy district

Specific Objectives of the Study

1. To find out level of Academic Achievement in science of high school students with reference to gender and Locality.
2. To find out the significant difference in Academic Achievement in science of high school students with reference to gender and Locality.
3. To find out the Correlation in Academic achievement in science of high school students with reference to gender and Locality.

TITLE OF THE STUDY

The present study is precisely stated as **"Academic Achievement in Science of High**

School Students In Trichy district"

OPERATIONAL DEFINITIONS

From the title of the study, the following variables are operationally defined meaningfully as follows**:**

1. High school students

In this study, high school level refers to students who are studying in IX Standard.

2. Academic Achievement

It refers to the achievement in science by 9thStandard students.

HYPOTHESES OF THE STUDY

1. The level of Academic Achievement in science of high school students with reference to gender and Locality is not moderate.
2. There is no significant difference in the Academic Achievement in science of high school students with reference to gender and Locality
3. There is no correlation in the Academic Achievement in science of high school students with reference to gender and Locality.

SAMPLE OF THE STUDY

The present study adopted the normative survey method. 700 data were collected from IX STD from 8 high schools from Trichy district.

Research Tool

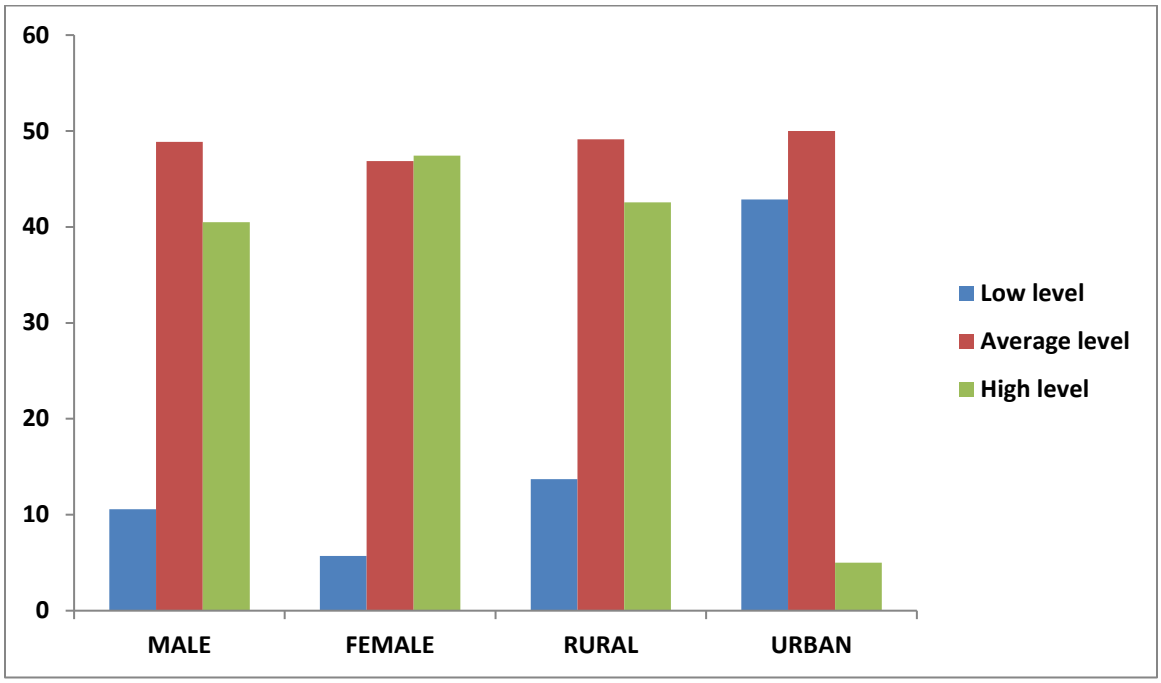
Academic Achievement Test developed and validated by the investigator.

ANALYSIS AND INTERPRETATION OF DATA

HYPOTHESIS-1

The level of Academic Achievement in science of high school students with reference to gender and Locality is not moderate**.**

Variable	Background Variable		Percentage			Sub Total	Total
			Low level	Average level	High level		
Academic Achievement	Sex	Male	37 (10.57%)	171 (48.86%)	142 (40.57%)	350 (100%)	700
		Female	20 (5.71%)	164 (46.86%)	166 (47.43%)	350 (100%)	
	Locality	Rural	29 (13.71%)	172 (49.14%)	149 (42.57%)	350 (100%)	700
		Urban	45 (42.86%)	175 (50%)	130 (37.14%)	350 (100%)	



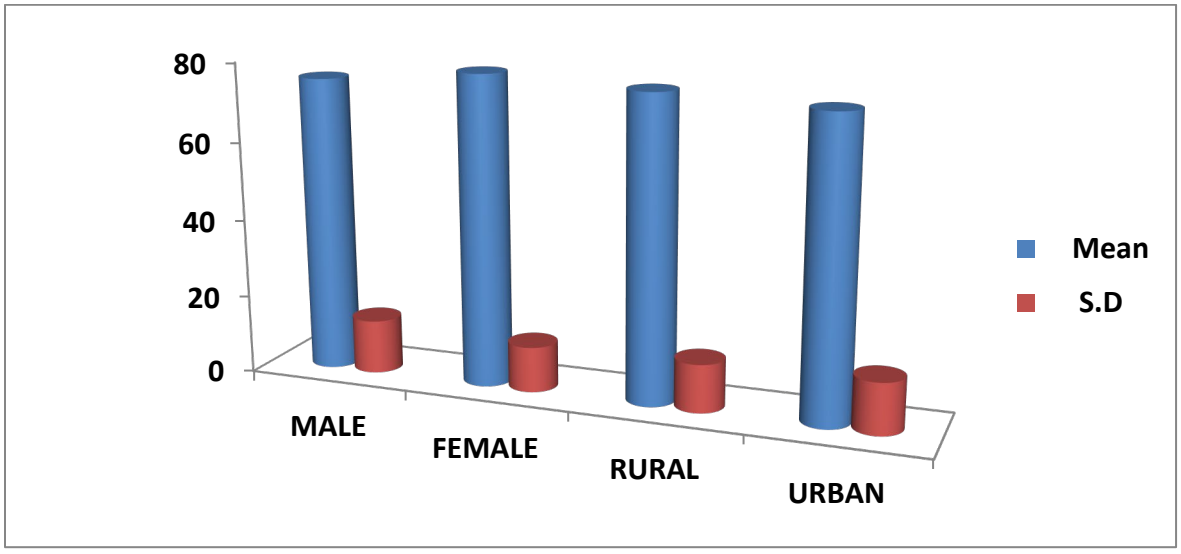
HYPOTHESIS-2

There is no significant difference in the Academic Achievement in science of high school students with reference to gender and Locality

Variable	Background variables		N	Mean	S.D	DF	't'-Value	Level of significance
Academic Achievement	Sex	Male	350	75.41	13.68	698	3.72	Significant at 0.01 level
		Female	350	78.96	11.56			
	locality	Rural	350	77.04	12.24	698	2.02	Significant at 0.05 level
		Urban	350	75.17	13.09			

In case academic achievement, the table plays that the Mean value 75.41 is obtained for Male students and Mean value 78.96 is obtained in Female Students. The calculated't' value 3.72 exceeds the table value of 2.58 at 0.01 level. It is conclude there is a substantial difference in speculative accomplishment in terms of gender. Hence hypothesis is rejected.

The mean score of Academic Achievement for the locality with rural area students is 77.04 whereas the mean score of Academic Achievement for the locality with urban area students is 75.17. The calculated't' value **2.02** is greater than the table value 1.96 at 0.05 level of significance. It is conclude there is a substantial difference in speculative accomplishment in terms of locality. Hence hypothesis is rejected.



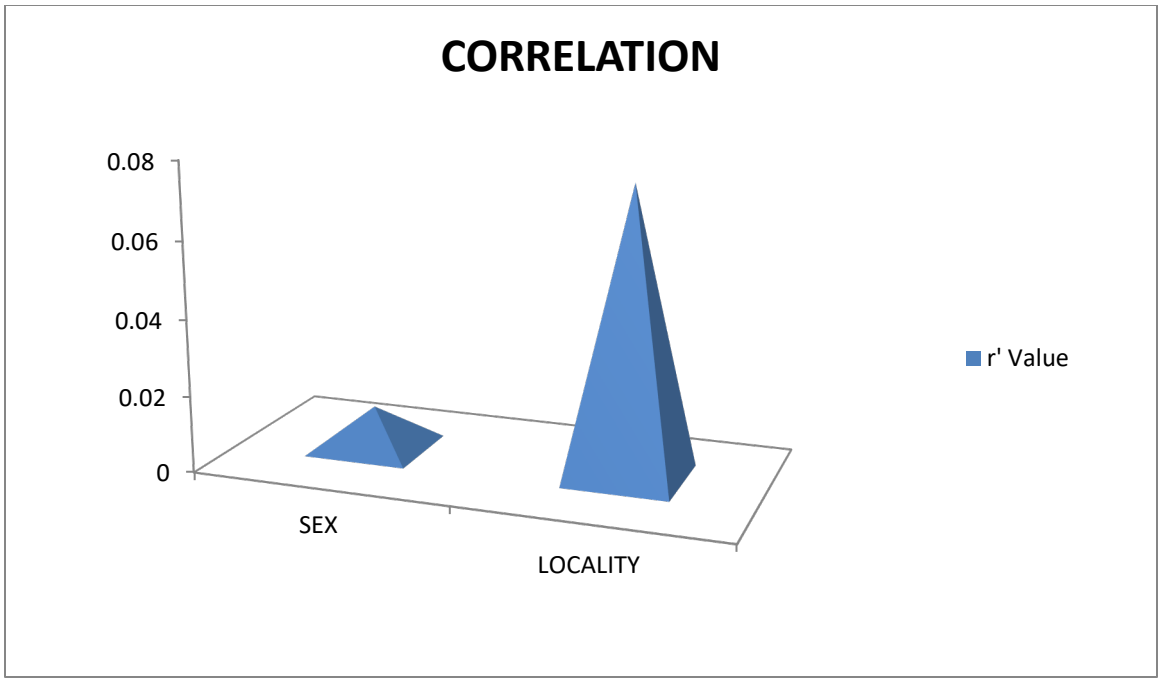
HYPOTHESIS-3

There is no correlation in Academic Achievement among students at high school level with reference to gender and locality

Variables	Background Variables		N	'r'-Value	Level of Significance
Academic Achievement	Sex	Male	350	0.011	Not Significant at 0.05 level
		Female	350		
	Locality	Rural	350	0.075	Significant at 0.05 level
		Urban	350		

The correlation of Academic Achievement for Male and Female students is **0.011**. The calculated 'r' value **0.011** is less than the table value **0.062**. Hence the null hypothesis is accepted. Therefore there is a moderate correlation in Academic Achievement among students at high school level in terms of sex. It could be concluded that there is a low level correlation between Male and Female High school students.

The correlation of Academic Achievement for Rural and Urban area students is **0.075**. The calculated 'r' value **0.075** is greater than the table value **0.062**. Hence the null hypothesis is rejected. Therefore there is a correlation in Academic Achievement among students at high school level in terms of Locality. It could be concluded that there is very high level correlation between Rural and Urban area High school students.



FINDINGS OF THE STUDY

1. The level of Academic Achievement in science of high school students with reference to gender and Locality is moderate.

2. There is a significant difference in the Academic Achievement in science of high school students with reference to gender and Locality

3. There is a correlation in the Academic Achievement in science of high school students with reference to gender and Locality..

EDUCATIONAL IMPLICATIONS

- The study showed that academic achievement played a significant role. This component can be highlighted and focused at the High school level also in future.
- Teacher Educators can plan their science activities to develop Academic Achievement of the students at all levels.

DELIMITATION OF THE PRESENT STUDY

❖ The present study was concentrating on High school level.

❖ The present study was conducted only in Trichy District.

CONCLUSION

Academic achievement is an important index, which determines all future success in the life of adolescence. This study implies that teachers and parents should pay special attention to encourage and motivate students to develop a good study habit and help to maintain peaceful mind, in order to increase the absorption of information received. Consequently it will improve their academic achievement in science. It is also suggested that the students' academic achievement could be raised up with the use of yoga and meditation.

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