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A study of scientific interest of college students in Vellore district in relation to their sex, type of institution, educational qualification, birth order

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Abstract

A survey of research evidences indicate that sex, type of institution, educational qualification and birth order of their study are closely associated with college student's level of scientific interest. Thus, most of the studies have been conducted on school going children and others but a very limited attempt has been made to enhance scientific interest among college students level. So it is necessary to undertake a study for identifying the factors that are responsible for the scientific interest among college students. The present research is an effort to find out such factors and the influence of various variables like- sex, type of institution, educational qualification and birth order on scientific interest. The study has been conducted on a sample of 380 college students to examine the effect of the scientific interest. The sample of the college students has been taken of those college students who are studying in graduate and post graduate in Vellore District. The random sampling technique was used in this study. The data was analyzed statistically by using mean, S.D. t-test & F test and the study revealed that entire sample of the college student shows the average level of scientific interest.

Keywords: Scientific, interest, college, students.

1. Introduction

Interest is a tendency to become absorbed in an experiment and to continue it. Downie (1961) defined as a tendency to make consistent choices in a certain direction without external pressure and in the face of alternatives. Interest and attention are very closely related components in determining the behaviour of an individual. Achievement is a result out of interest

According to Crow and Crow (1965) "Interest may refer to the motivating force that impels us to attend to a person, a thing, an activity. The development of an interest in science has long as been accepted as an objective of school by science and educators. Interest in science denotes positive feelings towards the science to complete absorption in scientific inquiry.

Operational Definitions of Terms Used

Scientific Interest

Scientific interest means "preference for voluntary participation in science related activities".

Objectives of the Study

The investigator of the present study framed the following objectives:

- 1 To find out the level of scientific interest of graduate students.
- 2 To find out the significance difference if any between the sex of college Students in respect of their scientific interest.
- 3 To find out the significance difference if any between the type of institution of college Students in respect of their scientific interest.
- 4 To find out the significance difference if any between the educational qualifications of college Students in respect of their scientific interest.
- 5 To find out the significance difference if any between birth order of college Students in respect of their scientific interest.

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Hypotheses of the Study

The following hypotheses have been formulated by the investigator for the present study,

- 1 The scientific interest of college Students belonging to the entire sample are high.
- 2 There is no significant difference between male and female college students with respect to their scientific interest.
- 3 There is no significant difference between types of institution with respect to their scientific interest.
- 4 There is no significant difference between graduate and post graduate college students with respect to their scientific interest.
- 5 There is no significant difference between birth order with respect to their scientific interest.

Sample

For the present study, sample of 380 college students will be selected from Vellore district by the method of Random Sampling

Tools to be used

In order to collect the data Scientific Interest Inventory (2012). Constructed and Standardized by Karuna Shankar Misra, Professor and Former Head, Department of Education, University of Allahabad, Allahabad.

Statistical Techniques

Mean, S.D. t-test and F test were used as statistical technique for the analyzing the collected data.

Analysis and interpretation of data

Descriptive Analysis – Scientific Interest

Table 1: Mean and standard deviation scores of college students towards scientific interest of entire sample

Category	Sub- Sample	N	Mean	SD
Entire Sample		380	171.01	35.32

It is evident from the Table 1 the calculated mean and standard deviation score of entire sample of college students in their scientific interest are found to be 171.01 and 35.29 respectively. The calculated mean score range from 135.30 to 241.01 falls on average level of scientific interest of college students. Hence, it is inferred that entire sample of the college students have average level of the scientific interest.

Differential Analysis for Scientific Interest Scores of College Students.

Null Hypothesis

There is no significant difference between male and female college students with respect to their scientific interest.

Table 2: Analysis of scientific interest scores of college students by ‘t’ test for sex

Sex	N	Mean	SD	‘t’ Value	Level of Sig at 0.05 Level
Male	165	187.49	33.32	1.70	Not Significant
Female	215	173.71	36.57		

As seen from Table 2 the computed ‘t’ value is 1.70. This ‘t’ value is not significant at 0.05 level. Hence, the framed null hypothesis is accepted. It indicates that there is no significant difference in scientific interest between male and female college students.

Null Hypothesis

There is no significant difference between types of institution with respect to their scientific interest.

Table 3: Analysis of scientific interest scores of college students by ‘f’ test belonging to government, aided and self-finance

Group	Sum of Squares	df	Mean Squares	‘F’ Value	Level of Sig at 0.05 Level
Between Groups	18016.605	2	9008.302	7.481	Sig
Within Groups	453984.329	377	1204.202		
Total	472000.934	379			

As seen from Table 3 the computed ‘F’ value is 7.481. This ‘F’ value is significant at 0.05 level. Hence, the framed null hypothesis is rejected. It indicates that there is significant difference in scientific interest among types of institution with college students.

Null Hypothesis

There is no significant difference between graduate and post graduate college students with respect to their scientific interest.

Table 4: Analysis of scientific interest scores of college students by ‘t’ test for educational qualification

Educational Qualification	N	Mean	SD	‘t’ Value	Level of Sig at 0.05 Level
Graduate	224	166.24	35.50	3.194	Significant
Post graduate	156	177.85	33.93		

As seen from Table 4 the computed ‘t’ value is 3.194. This ‘t’ value is significant at 0.05 level. Hence, the framed null hypothesis is rejected. It indicates that there is significant difference in scientific interest between graduate and post graduate college students.

Null Hypothesis

There is no significant difference between birth order with respect to their scientific interest.

Table 5: Analysis of scientific interest scores of college students by 'f' test belonging to birth order of 1st, 2nd and 3rd.

Group	Sum of Squares	df	Mean Squares	'F' Value	Level of Sig at 0.05 Level
Between Groups	17308.378	2	8654.189	7.175	Sig
Within Groups	454692.557	377	1206.081		
Total	472000.934	379			

As seen from Table 5 the computed 'F' value is 7.175. This 'F' value is significant at 0.05 level. Hence, the framed null hypothesis is rejected. . It indicates that there is significant difference in scientific interest among birth order of college students.

Delimitations of the study

The study is delimited to

- College students of Vellore District only.
- It includes college students of the age group 18+ yrs
- A sample of 280 students studying in college class.

Main Findings

- 1 Hence, it is inferred that entire sample of the college students have average level of the scientific interest.
- 2 The investigator found there is no significant difference between college students belonging male and female in relation to their scientific interest.
- 3 A very surprising result can be seen from the result study that there is significant difference between scientific interest of college students in regard to type of institution.
- 4 The investigator found that there is significant difference in scientific interest between graduate and post graduate college students.
- 5 The investigator found that there is significant difference in scientific interest among birth order of college students.

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