

Scientific Attitude of Science and Arts Secondary Schools of Teachers in Relation to Sex

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Abstract: *The main aim of this study is to find out scientific attitude of science and arts secondary schools of teachers of Agra district in relation to sex. Scientific attitude scale (SAS) developed by SC Gakhar and Dr. Amandeep kaur has been administered of a random sample of hundred teachers working in secondary schools of Agra district. The data was analyzed using 't'-test. In this study was found that the female of secondary schools teachers have more scientific attitude as compare to the male of secondary schools teachers.*

Keywords: Scientific attitude, science and arts secondary school teachers, gender

1. Introduction

Quality of education is directly linked with quality of teacher. Up to 1950 there was no serious discussion on the quality of education and these days it was commonly believed that teachers gave importance to their profession. Teaching profession involves dedication. It is a sense of being bound emotionally or intellectually to some course of action. Which may include a person's relationship with other individuals group or organization. Teaching is a part of teacher's affective or emotional reaction to there experience in an educational setting. It can be seen as a part of learned behaviour of teachers. Teachers are the sculptures that shape the young ones into individual of potential and worthy characteristics. "An attitude is a predisposition or readiness to respond in a predetermined manner to relevant stimuli," Whittaker.

A teacher who has a positive attitude towards his profession can only bring the desirable changes in the child. We have to consider the attitude of the instructor towards his/her class. The establishment of good relationship between instructor and class is vitally important and determines whether the process of learning is going to be a cooperative effort, an uneasy alliance, or a cold war. Army instructors are given excellent advice in a brief maximum "your attitude must be fair firm and friendly." Scientific attitude is a setting of mind and a way of life. According to certain principle, it is developed when science subject are taught as discipline of mind of scientific attitude is developed in the children will live think and work accordingly. The national society of the study of education define scientific attitude as open mind ness as desire of accurate knowledge, confidence in procedure for seeking knowledge and expectation the solution of the problem will come through the use of verified knowledge. The word scientific attitude includes curiosity towards the surroundings environments, belief in cause effect relationship, patience, truthfulness, impartiality and mindedness. "The willingness to give up an old established theory as soon as it is proved to be definitely inconsistent with a single scientific fact is the scientific attitude; no branch of knowledge without this attitude can be called a science," Boris Podolsky. "Scientific attitude implies the postulate of objectivities that is to say, the fundamental postulate that there is no plane that there is no intention in the universe," Pop john. S. Joneja, (2004),

found that independent variable of achievement in science was found to be insignificantly correlated with the dependants variables of scientific attitude at 0.05 level of significance. Thus the variables of achievement are independent of each other.

R. Sahayamary, I. Paul raj (2008) found that the factors domicile, gender, locality of the school, medium of instruction and size of family do not influence there scientific attitude and achievement in science. But the age and religion of the students influence their scientific attitude and achievement in science.

2. Need of Study

Scientific attitude as open-mindedness a desire for accurate knowledge. Confidence in procedure for seeking knowledge and expectation that the solution of problems will come through the use of verified knowledge. The word scientific attitude includes curiosity towards the surrounding environment, belief in cause-effect relationship, patience, truthfulness, impartiality and open mindedness.

Till date scientific attitude has been associated with the teaching of science only. But with the recent development in the field of pedagogy, the teaching itself has become science of teaching. So the field of scientific attitude also has become very vast. It is now more of a way of life, than just an attitude related to science subjects, so the investigator aims towards to finding out the scientific attitude of the science and arts teachers and gender differences between male and female teachers towards science and arts.

3. Objectives

- To compare the scientific attitude of male & female secondary school science teachers.
- To compare the scientific attitude of male & female secondary school art teachers.
- To compare the scientific attitude of science and art secondary school male teachers.
- To compare the scientific attitude of science & art secondary school female teachers.
- To compare the scientific attitude of science and art secondary school teachers.

4. Research Methodology

This study was descriptive in nature and conducted to measure the scientific attitude of secondary schools science and art teachers related to sex.

Population

All the secondary school teachers, scientific attitude of secondary schools science and art teachers related to sex at secondary level in district Agra constituted the population of the study.

Sample

Nine secondary schools comprising male and female were selected by stratified random sample.

Table 1: The distribution of respondents

Secondary school teachers			
100			
Science teachers		Art teachers	
50		50	
Male teachers	Female teachers	Male teachers	Female teachers
25	25	25	25

Tool

Scientific attitude scale (SAS) developed by Dr.S.C. gakhari and Dr. Amandeep kaur.

Method use for analysis of data

The following statistical techniques were used for analyzing the data;

Descriptive analysis- Means, Standard Deviation

Different analysis- t-test,

5. Data Analysis and Interpretation

Table 2, Mean, S.D., t-value of the different variables and the level of significance at the .05 and .01 of science and arts (male and female) teachers of the Sec. School.

Sn	Variables	Mean	S.D.	T-Value	Level of Significance (At .05 and .01)
1	Science Male Teachers	697.156	0.6	0.02547	No significance
2	Science Female Teachers	782.100	0.1		
3	Art Male Teachers	701.7124	0.2	0.00153	No significance
4	Art Female Teachers	738.3416	0.1		
5	Science Male Teachers	697.156	0.6	0.00437	No significance
6	Art Male Teachers	701.712	0.2		
7	Science Female Teachers	782.100	0.1	0.00718	No significance
8	Art Female Teachers	738.3456	0.1		

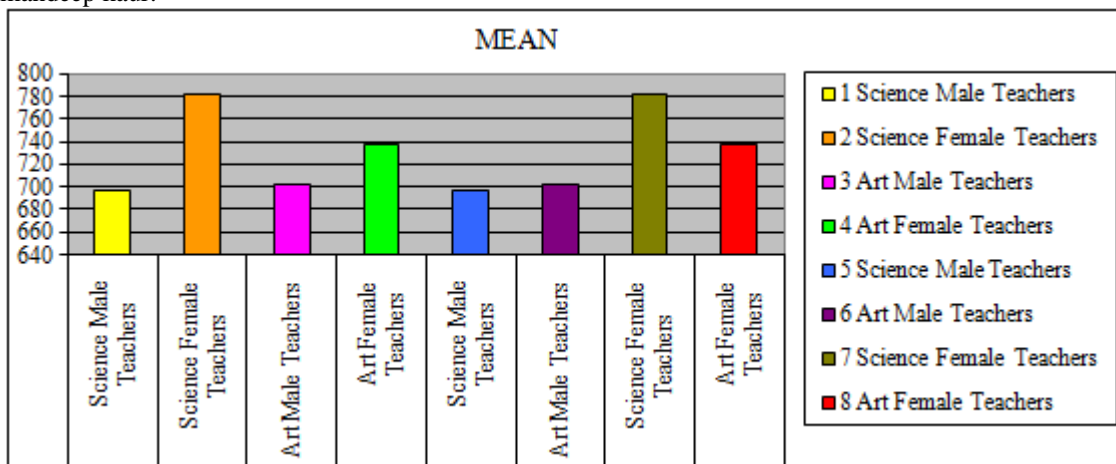


Figure 1: Graphical represent of table-2

Interpretation

It is inferred from the table-2 and figure-1 that there is no significance difference between the scientific attitude of male and female science teachers, male and female art teachers, science and art male teachers and science and art female teachers.

Table 3: Mean, S.D., and t-value of the scientific attitude of science & art sec. schoolteachers

S.N.	Variables	Means	S.D.	T-value	Level of signifiacnce
1	Science Teachers	19.7384	624.345	0.086357	No Signifiacnce
2	Art Teachers	17.8413	599.197		No Signifiacnce

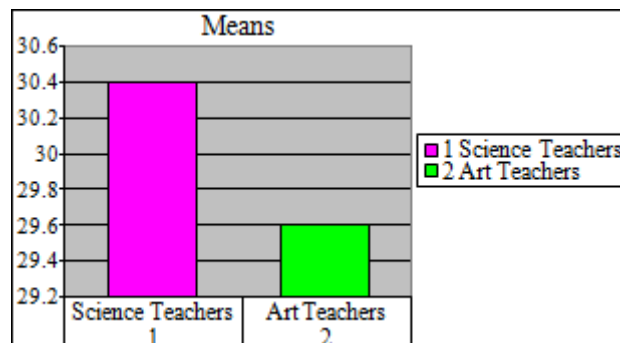


Figure 2: Graphical represent of table-3

Interpretation: It is inferred from the table-3 and figure-2, there is no significance difference between the scientific attitude of science and art Sec. School teachers on the level of significance at 0.05(2.58) and 0.01(1.96).

6. Main Finding and Conclusion

1) Scientific attitude of the different variables of the science and art sec. School teachers

The 1st compare the scientific attitude of male and female sec. School science teachers. Using the T-test procedure we have obtained the value of $t = 0.02547$ There is no significance difference between the scientific attitude of male and female science teachers on the level of significance at 0.01(1.96) and 0.05.(2.58) And

2nd compare the scientific attitude of male and female sec. School art teachers. Using the T-test procedure we have obtained the value of $t = 0.00153$. There is no significance difference between the scientific attitude of male and female Art teachers on the level of significance at 0.01 and 0.05.

3rd compare the scientific attitude of science and art sec. School male teachers. Using the T-test procedure we have obtained the value of $t = 0.00437$. There is no significance difference between the scientific attitude of science and art sec. school male teachers on the level of significance at 0.01 and 0.05.

4th compare the scientific attitude of science and art sec. School Female teachers. Using the T-test procedure we have obtained the value of $t = 0.00718$. There is no significance difference between the scientific attitude of science and art sec. school Female teachers on the level of significance at 0.01 and 0.05.

2) Difference in scientific attitude of science and art secondary School teachers

The mean score of the scientific attitude of the secondary school science teachers are 19.7384 and the standard deviation is 624.346. And the mean score of the scientific attitude of the secondary school Art teachers is 17.8413 and the standard deviation is 599.1971.using the T-test procedure we have obtained the value of $t = 0.086357$.

There is no significance difference between the scientific attitude of science and art Sec. School teachers on the level of significance at 0.05(2.58) and 0.01(1.96).

7. Conclusion

First of all we have taken average score of science side teachers and art side teachers of Govt. secondary schools Agra and analyzed its. Firstly male and female teachers of science were compared and no significant difference was found in their scientific attitude. After those male and female teachers of art side were compared and no significant difference was found in their scientific attitude.

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