ATTITUDE TOWARDS SCIENCE AND ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS

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Abstract

In the present study is about attitudes towards scienceand academic achievement secondary school students. The population included grade students a total of 38 students (8 girls and 30 boys). The research instrument was the Persian translation of the Science Education questionnaire. Results indicated that there is no significant difference between boys and girls attitude towards of science secondary school student. There is no significant difference between boys and girls academic achievements of science secondary school students. There is no significant relationship between attitude towards science and academic achievement.

Keyword: Attitude towards science, academic achievement, and secondary school students

Introduction

In the present study about Attitude towards science, academic achievement and secondary school students, which are talking about the attitude towards the science of the student? Learning science is very important in this century because of science is useful for everyone. Everyone has to know how to live in the society. So that there are many authors give the concept of attitude towards science as;

Osborne et al. (2003) said that attitude towards science should consist that components are "perception of the science teacher, anxiety towards, the value, self-esteem a, motivation, enjoyment, attitudes of peers and friends, the nature of

classroom environment, achievement in science and fear of failure on course." The attitude of understudies to science is a critical component that is connected with achievement in science.

Papanastasiou and Zembylas (2002), given the meaning that "A substantial body of research has accumulated over the last three decades, concerning the importance of various attitudes toward science and the relationships between these attitudes and achievements in science" and Parker and Gerber (2000), Said that Attitude is imperative for the achievement in light of the fact that both clue to the determination of professions through the understudies.

Stefansson (2006) He suggested that students consider school sciences interesting, easy to learn and believe that everyone should learn science in school. They also believed that the science which they learn in school is useful in everyday life. Examined the Icelandic students' views about science, technology, and school science Manninen et al. (2005) said that examined conceptions of students about technology and environmental issues and school science. Their results showed that girls showed more concern towards environmental issues. Their results also showed that both boys and girls believed in science and technology capacities and Science subject.

Summary

Attitude towards science is the relationship between these achievements and attitudes in science, which it is showing for students, know about theenvironment and new technology. It will help all of thestudent's achievement in their life. They will get new knowledge from the teacher who is teaching science subject. In the present, we have to use science in our living. It means knowledge of things in nature, both living and non-living. It is including the process of coding empirical knowledge. The so-called scientific process. And the group of knowledge gained from the process. So in this present, attitude towards science will be arelationship with our life.

Objective

- 1. To study the significant difference between boys and girls in secondary school student attitude towards science.
- 2. To study the significant difference between boys and girls secondary school students academic achievement
- 3. To study the relationship between attitude towards science and academic achievement.

Hypotheses

- 1. There is no significant difference between boys and girls attitude towards of science secondary school students.
- 2. There is no significant difference between boys and girls academic achievements of science secondary school students.
- 3. There is no significant relationship between attitude towards science and academic achievement.

Tool and technique

In this present study standard tool use collection the data, the tool is prepared by Mrs. Avinash Grewal. There is five-point scale in this tool. it has five different responses of **'strongly agree'**, **'agree'**, **'undecided'**, **'disagree'**, **and 'strongly disagree'**. This tool prepared for students in 38 questions. This tool also has validity, score, and reliability.

Validity

The SAS appears to have content validity and the method of selecting items to support this supposition. In addition, the difference in mean scores was found among the selected group of known preference for science i.e. Arts (mean=46.49) and Science (Mean = 50.58) student which is highly significant (t=6.62) at 1 percent level.

Score

Each of the ten positive item (s.Nos.2.4.6.8.10.12.14.16.18.20)of the scale are assigned a weight ranging from 4 **strongly agree' to 'strongly disagree'.** in the case of ten negative items (S.Nos.1.3.5.7.9.11.13.15.17.19) the scaled scoring is reversed

ranging from Zero (Strongly Agree) to 4(Strongly Disagree).the attitude score of a subject is the sum total of scores on all the twenty-item of scale. For each student, a total score on the scale can be obtained by summating his scores for the individual item. Thus a maximum of 80 scores can be obtained by a subject. However, the administration of the test reveals that the scores ranged from 25 to 70.

Reliability

The reliability science attitude towards science Scale (SAS) was estimated by the split-half (0.86) and test-retest (0.75) methods which were found to be quite satisfactory. This compares favorably with reliability (0.765) found by food(1975) for this score attitude towards science and scientist.

Finding

In this analysis and interpretation constitute a significant part of theresearch. It helps a researcher to understand the collected data in details and find out therelationship between or among the variables of study and draw collect conclusion or finding of this study.

In the present study, the collected data is analyzed descriptively. This article is useful for every student in secondary school.

Table1: showing that the Mean, SD and the t-test difference between boys and girls attitude towards science.

Sl.no	Groups	Ν	Mean	SD	df	t-	Sign
						value	
1	Boys	30	48.30	6.047	36	0.476	0.123
2	Girls	8	49.38	3.777			

Above the table shows that obtain t-value 0.476 is less than the table value 1.98 at 0.05 levels. Therefore the hypothesis is accepted that there is no significant difference between boys and girls attitude towards of science of secondary school students.



Tables 2: showing that the Mean, SD and the t-test difference between boys and girls academic achievements of science secondary school students

Sl.no	Groups	Ν	Mean	SD	df	t-	Sign
						value	
1	Boys	30	31.37	19.336	36	0.566	0.781
2	Girls	8	66.88	22.338			

Above the table shows that obtain t-value 0.566 is less than the table value 1.98 at 0.05 levels. Therefore the hypothesis is accepted that there is no significant difference between boys and girls academic achievements of science secondary school students.

Tables 3: showing that 0.10. That score, therefore, there is amoderate or substantial correlation between SAS and ACM.

Sl.no	Group	N	Correlation(r)
1	sas	38	0.10
2	ACM	38	

The above table shows co-efficient of stability of correlation between science attitude towards of secondary school students and academic achievements. The table score is 0.10. That score, therefore, there is amoderate or substantial correlation between SAS and ACM.

Conclusion

Finding in this present study, the researcher was sum up that attitude towards science is necessary for student who is studying at this time or in the future. Science subject is one subject that shows you know about society in this period. It shows corporation between countries to countries and anxiety, the value, self-esteem a, motivation, enjoyment, attitudes of peers and friends, the nature of classroom environment, achievement in science and fear of failure on course. Therefore, the result of finding in this study as. There is no significant difference between boys and girls attitude towards of science of secondary school students, there is no significant difference between boys and girls academic achievements of science secondary school students and there is amoderate or substantial correlation between SAS and ACM.

Bibliography

- Manninen, A., Miettinen, K. & Kiviniemi, K. (2005). Research findings on young people's perceptions of technology and science education. Helsinki: Technology Industries of Finland.
- Osborne, J., Simon, S., & Collins, S. (2003). Attitude towards science: a review of the literature and its implications. *International Journal of Science Education*, 25(9), 1049-1079.
- Papanastasiou, E. C., & Zembylas, M. (2002). The effect of attitude on science achievement: A study conducted among high school pupils in Cyprus. *International Review of Education*, 48(6), 469-484.
- Parker, V., & Gerber, B. (2000). Effects of science intervention program on middle-gradestudent achievement and attitudes. *School Science and Mathematics*, 100(5), 236-242.
- Stefansson, k. k. (2006). 'I just don't think it's me' A study on the willingness of Icelandic learners to engage in science-related issues. Unpublished Master Thesis, University of Oslo.