

## **A Study on Attitude towards Research among Technology Education Students in Pakistan**

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### **Abstract**

In contemporary world, Students' attitude is considered more important than their experiences and academic preparation. A positive attitude towards research is a key to success and progress in the knowledge based societies. This study explored the students' attitude towards research. The participants of present study were Master of Technology Education (MTE) students studying in Institute of Education and Research, University of the Punjab, Lahore. The sample comprised of 140 students of technology education selected through random sampling technique. The Attitude towards Research scale (ATR) was adapted for data collection. The scale was consisted of 28 items which were divided into five factors: research usefulness, research anxiety, positive attitudes, relevance to life, and research difficulties. ATR scale was developed by Elena C. Papanastasiou from University of Cyprus in 2002. The data were analyzed using descriptive statistics and t-test. The results showed that student have a positive attitude towards research. It was concluded that there is insignificant different between male and female students attitude towards research. It was suggested for better academic attainment that more researches should be conducted to explore other causes similar

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to aptitude, inspiration and anxiety. It was also suggested more support by conducting researches which comprise qualitative data collection methods such as observations and interviews from students for sharp-eyed understanding and implications of this research.

**Keywords:** Attitude, research, attitude towards research, technology education

## Introduction

Now a day, swift varying globe, research has turned into one of the most significant rational assets for all human being to transform his way life. It unwrap novel destinations to several disciplines like education, commerce, trade, industry, economics, science and technology. In fact, man's huge rise depends upon research which had made an important function in itself.

Since research demand rises, most students of higher education have to come up with a research article fixing on troubles, issues or theme related to their concern. Papanastasiou (2005) stated that students at the undergraduate level generally inclined to view research methods courses negatively. Numerous studies showed indication of negative attitudes of students towards research regarding research course (Adams & Holcomb, 1986). There are difficulties which were supposed to be associated with the negative attitudes of the students towards research such as the problems of research, the quantity of workloads given to the students and their concerns towards the area under discussion. Usually, those individuals who come across research complex and nerve-racking increase greater research anxiety. In the same way, previous studies considered attitude as chief forecaster of individuals' educational attainment. The majority of these studies confirmed that more students' positive attitude towards an educational subject, the superior the opportunity for him/her to execute fine academically (Boser & Daugherty, 1998).

Reynolds and Walberg (1992) acknowledged as attitude had a significant force on educational attainment of students. Though, contradictory to this argue, there were other researchers disagreeing that attitude of students might not be consistent to educational attainment (Hung, 2005). In an educational setting carrying out research should be an imperative facet of all educators' specialized field of life. Best and Kahn (1993) define research as "the systematic and objective analysis and recording of controlled explanations that may indicate to the development of generalizations, principles, or theories, resulting in guess and possibly final control of events" (p. 27). According to Best & Kahn (1993) education in a research situation is completed to get better performance of school and at the same time to advance those students who thrash about to progress those practices.

A number of studies document negative attitude of students and practitioners of education toward educational research (Levine, 2007). The students' negative attitudes not only affect their education but also their performance in the subject they learn (Elmore & Lewis, 1991, Zaidner, 1991). Studies show that a significant association exists between attitude and achievement (German, 1988). While some other researches' (Keeves & Morgenstern, 1992) mentioned that achievement affects attitude and attitude affects achievement. This situation calls for a comprehensive study to be conducted to calculate the attitude of future teachers toward research.

Research methods as a course are considered an important element of teacher education curriculum throughout the world. The fundamental rationale of research methods course in teacher education curricula is to widen the expertise and capabilities of forthcoming teachers and to sustain concentration and optimistic attitude toward research. Nevertheless, even with learning research methods course in education through their early or succeeding years of teacher training programmes. Darling-Hammond and Youngs (2002) concluded that majority of teacher education graduates neither like this course nor sense proficient in this field of study. This study is an attempt to investigate technology education students' attitudes towards research with the vision to facilitate teacher educators to perk up students' performance in the discipline of technology education and make possible for them to become high-quality researcher throughout their profession as a teacher.

### **Statement of the Problem**

Attitude is an imperative facet of education in general and particular in research. It is obligation of the time to make sure its wide-ranging understanding for the augmentation of students' attitude towards research. This study aims at to explore technology education students' attitudes toward research.

### **Objective of the study**

1. To explore technology education students' attitude towards research.

### **Research Questions**

1. What is the extent of attitude of technology education students towards research?
2. Is there any significant difference between morning and self-supporting class students' attitude towards research?
3. Is there any significant difference between male and female students' attitude towards research.

### **Significance of the Study**

This research may be enriched attitude of technology education students toward research which might supportive in their professional improvement. Literature reviewed illustrates certain unpredictable study results in detail. The outcomes of this research might be useful to accept or reject several prevailing theories. This research might be noteworthy for the institutes in defining the students' attitude who opt research. The study may be beneficial for teachers to deliver additional facility to the students to expand their achievement. The research might be helpful for the managers of educational institutions to identify the kind of pupils who precede technology education, considering the pupils' attitude towards research that may offer facts around the result of their education. Attitude of student towards research is considered the important component of technology education. The prime argument to rationalize this study is that it permits and facilitates curriculum experts to focus the content more student-centered than subject centered.

### **Review of Related Literature**

Attitudes toward research can be concerned an effective feeling and reply toward research. Fear of failure, negativity, stress, feeling ineffectively prepared or unable to do, and disinterest are described in the studies. In a research conducted by Rubin & Babbie (2011) found that students of social work have negative attitudes toward research. Anecdotaly, social work educators know that students do not entirely hold on research. Wainstock (1994) mentioned that students have not interest in taking a research classes. According to Wells et al. (2009) interest of students in research cannot be realized entirely until he or she can apply it to practical life. Fraser's (2009) expression on her own studies that work faltered was low while her interest in research study was low. She also distinguished that students who juggle numerous aspects of living are particularly susceptible to deteriorating interest and lower confidence in undertaking study efforts. Emphasizing the importance of research, encouraging students, and providing a research friendly and supportive environment have been identified as increasing the research interest of students (Kirk & Rosenblatt, 1981; Pan & Tang, 2005; Secret et al., 2003).

### Method and procedure of the study

The quantitative approach was adopted to explore students' attitude towards research. The research design was descriptive in nature; a survey method was used to collect the data. The subjects comprised on 140 Students of Department of Technology Education, Institute of Education and Research, University of the Punjab, was taken through cluster sampling technique. The researchers adapted Attitudes toward Research (ATR) scale by the consent of its author. Elena C. Papanastasiou developed the ATR Scale in 2002. Papanastasiou used the tool in his research which was consisted of statements with five point Likert style reply categories. The probable responses on every statement were allocated weightage as Strongly Agree 5, Agree 4, Neutral 3, Disagree 2, and Strongly Disagree 1. The information collected was coded and each respondent was allocated a code. After the entry of data negative statements were upturned. The summation of every statement of all students illustrated his score on the attitude towards research scale. Therefore, the minimum possible score on the attitude scale was 1 and the maximum was 5. It indicates that lower scores on the scale reflect the less encouraging attitude towards research and vice versa.

**Table 1**

*Descriptive Information for factors of the ATR scale*

Sub-Scale	What the Scale explore
Research usefulness for profession	Measures usefulness, value and relation of research to profession
Research Anxiety	Explore stress, confidence and worries about research
Positive attitudes toward research	Assesses the extent to which boys and girls like, take interest and feel pleasant about research
Relevance to life	Measures the extent to which students' think the relevancy of research to their daily life
Research difficulty	Measures the perceived difficulty of research

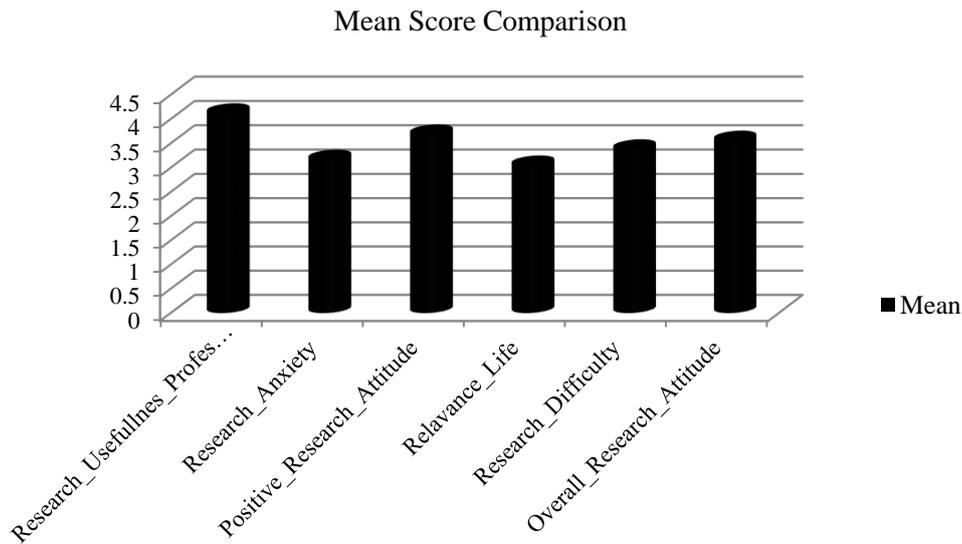
### Data Analysis

Statistical Package for Social Sciences (SPSS-15) software was used for data analysis. Mean scores and standard deviation of the students on ATR scale and its factors were measured through descriptive statistics. T-test was applied to measure the difference in attitudes of male and female students' and difference in morning and self-supporting students as well.

**Table 2***Mean and Standard Deviation of Sub-Scales of ATR Scale*

Sub-Scale	N	Minimum	Maximum	Mean	Std. Deviation
Research_Usefulness_Profession	140	2.86	5.00	4.1143	.43290
Research_Anxiety	140	1.00	5.00	3.1607	.81464
Positive_Research_Attitude	140	1.25	5.00	3.6786	.67824
Relevance_Life	140	1.00	4.50	3.0411	.57497
Research_Difficulty	140	1.67	5.00	3.3738	.79815
Overall_Research_Attitude	140	2.68	4.36	3.5528	.32571

Table 2 expresses that students represented highest level of attitude in Research is Usefulness in their Profession subscale comparatively. However students disagreed that Research is Relevance to their Life. The overall attitudes of students towards research remained positive ( $M=3.5528$ ,  $SD=0.32571$ ).

**Figure 1** Mean score of Sub-Scales of ATR Scale

**Table 3***Mean comparison of research attitude sub-scales on the basis of session of respondents*

Variables	Session	N	Mean	S.D	T	df	P
Research_Usefulness_Profession	2013-2015	75	4.0743	.47749	-1.176	138	.242
	2014-2016	65	4.1604	.37330			
Research_Anxiety	2013-2015	75	3.2844	.84264	1.950	138	.053
	2014-2016	65	3.0179	.76270			
Positive_Research_Attitude	2013-2015	75	3.5233	.74398	-2.991	138	.003
	2014-2016	65	3.8577	.54615			
Relevance Life	2013-2015	75	2.9767	.58583	-1.429	138	.155
	2014-2016	65	3.1154	.55740			
Research_Difficulty	2013-2015	75	3.4711	.86835	1.557	138	.122
	2014-2016	65	3.2615	.69844			
Overall_Research_Attitude	2013-2015	75	3.5262	.35547	-1.039	138	.301
	2014-2016	65	3.5835	.28726			

Table 3 indicates that there is significant difference found in Positive Research Attitude sub scale  $t(138) = -2.991$ ,  $p = 0.003$ . The students enrolled in session 2014-2016 have more positive attitude towards research than those students enrolled in session 2013-2015. The students did not show significant difference in rest of the sub scales. It was concluded that there was no significant difference between students of session 2013-2015 and session 2014-2016 in overall attitudes towards research.

**Table 4***Comparison of research attitude factors on the basis of gender of respondents*

Variables	Gender	N	Mean	S.D	T	df	P
Research_Usefulness_Profession	Male	42	4.1939	.40996	1.429	138	.155
	Female	98	4.0802	.43999			
Research_Anxiety	Male	42	3.3175	.72584	1.497	138	.137
	Female	98	3.0935	.84445			
Positive_Research_Attitude	Male	42	3.7232	.57484	.508	138	.612
	Female	98	3.6594	.71993			
Relevance_Life	Male	42	3.1667	.58609	1.704	138	.091
	Female	98	2.9872	.56461			
Research_Difficulty	Male	42	3.2143	.78544	-1.556	138	.122
	Female	98	3.4422	.79773			
Overall_Research_Attitude	Male	42	3.6199	.26642	1.605	138	.111
	Female	98	3.5241	.34530			

Table 4 shows that there is no significant mean difference between male and female students regarding sub scales of ATR. Further it is also revealed that there is no significant mean difference between male and female students regarding overall research attitude ( $t=1.605$ ,  $df=138$ ,  $p=.111$ ).

## **Discussion**

Attitudes toward research can be concerned an effective feeling and reply toward research. It was concluded that students of technology education have positive attitude towards research while Rubin & Babbie (2011) found that students of social work have negative attitudes toward research. The study finding showed that there is insignificant different between male and female students attitude towards research whereas Wainstock (1994) mentioned that there was insignificant different exist between male and female students attitude towards research. The present study results support the pervious researchers' findings.

## **Conclusion**

The students represented highest level of attitude in Research is Usefulness in their Profession subscale comparatively. However students disagreed that research is relevance to their Life. The overall attitudes of students towards research remained positive. There is significant difference found in Positive Research Attitude sub scale. The students enrolled in session 2014-2016 have more positive attitude towards research than those students enrolled in session 2013-2015. The students did not show significant difference in rest of the sub scales. Moreover there is no significant mean difference between male and female students regarding sub scales research attitude.

## **Recommendations**

On the basis of findings and conclusion of this study the following recommendations were made.

- Teachers should encourage their students about getting awareness and familiarity about importance of research.
- Teachers should provide counseling and guidance to their students about research issues.
- Research workshops, symposia, conferences and seminars should be conducted to inspire students for genuine research projects.
- Teachers should focus on implementation of rules and regulations set by higher authorities in order to develop the interest of students toward research.

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