



Measuring Students' and Teachers' Attitude towards Research at University Level

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Abstract: *The research culture is a basic element for higher institutions at the global level, especially in social sciences subjects' research as a compulsory subject taught in the universities of Pakistan. Through this study, it has been tried to measure the students' and teachers' attitudes towards research by using a semantic differential scale. The survey research design was used to collect data and to find the attitudes of the students and teachers. Two universities were selected as the population of the research. One university was selected from the public sector, and another from the private sector. From the overall population, two fifty (250) students (male & female) and one fifty (150) teachers (male & female) were selected as the sample of the research. The findings revealed that there was a statistically significant difference between the attitudes of teachers and students toward research.. Furthermore, the results of the study recommended that teachers are the reflection of their students, and positive and productive attitudes of teachers foster students towards research. The content writing and research attitude are mutually interlinked. In this way, efforts should be needed to create reading and investigating behaviours among university students to create a research environment.*

Key Words: Research, Student Attitude, University Teachers, Reflection

Introduction

People's attitudes toward research have unearthed a number of studies demonstrating that attitudes toward research are frequently negative. Students believe that conducting research is time-consuming and difficult (Moberg, 2019). In their professional lives, they are unfamiliar with the concepts of research and the significance of research. While most of the faculty members in Pakistan have a serious attitude toward research, the majority of students believe that research is a difficult and useless activity. Moreover, Shahid (2022) stated that most teachers don't have much interest in reading research literature because they don't have enough time.

The attitudes of undergraduate students towards research have a very crucial importance for the success in the relevant subject. In higher institutions, students with research participation were found to be notably higher than it was in second-year students (Siemens, Punnen, and Kanji, 2010). Graduate students did significantly better performance on the research project when compared to undergraduate students. Moreover, students consider that research is difficult and time-consuming, so they avoid taking it as the student's undergraduate classes. However, because of the many obstacles they had to study research, on the other hand, they believe that research is important for the PhD and is beneficial in future careers, so most students have multiple perspectives towards research (Guillen-Gamez, 2020).

Attitude towards Research

Research attitudes can be described as a multidimensional construct with regard to students' perceptions of research utility for their field, their relevance to their daily lives, and their ability to handle research methods (Butt, 2020). Many students report feeling anxious about taking a mandatory research methodology module (Bolin et al., 2012). Moreover, Papanastasiou & Zembylas (2008) opined that even if students believe that research methodology module instructors are the "gatekeepers" who prevent them

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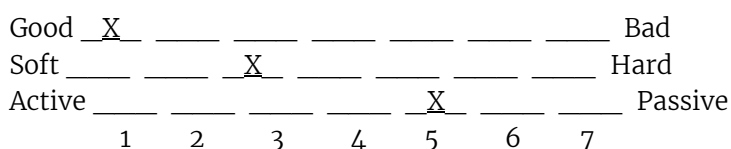
from graduating, some students may also consider those instructors to be the "all-access pass" that allows them to bypass the material that they are unable to comprehend. If students have negative attitudes, they may prevent their learning or even impair their performance in subsequent research and learning modules. Attitudes have been demonstrated to have a significant influence on behavioural intentions (particularly in marketing literature), and so students' negative attitudes may prevent them from learning and even adversely impact their performance in future research modules.

As Haldar (2022) noted, students neglecting attitudes toward research could be under pressure to pursue a master's or doctoral degree, even though they had taken a course in research methodology prior to embarking on those studies. Some places showed that in a quantitative methodology course, research anxiety was negatively related to academic achievement. As Papanastasiou (2005) claimed, attitudes affect a person's level of effort and learning about research. The attitudes influenced students' choice of more advanced coursework on the research subject. A more positive attitude toward research, on the other hand, is thought to lead towards a greater internal motivation for researchers (Evans, 2011), which emphasizes the significance of assessing and changing students' attitudes toward research. Past research has provided some support for the idea that taking a research methodology course can have an impact on one's attitude toward research (Westhuizen, 2014).

It appears from the evidence presented in the literature that the majority of students have an unfavourable approach to the idea of carrying out a research methodology course while they are still in school. Students who are enrolled in research methodology courses at the start of the course commonly feel anxious, nervous, and overwhelmed at the beginning of the class. Research methodology appears to be something that students would avoid if given the option (Selaledi, 2009). To understand the reasons why students are resistant to research methodology courses, author Earley (2014) explains that no underlying factors have been acknowledged. While she predicts this, she believes that it will happen in the future. Students might be worried about having to perform data analysis for their research studies. Dealing with the students' statistics anxiety was the greatest challenge for the authors (Laher, 2007). Further, when teaching an undergraduate course on research design and analysis, research training environments related to relevant are thought to have a positive influence on graduate students' attitudes toward conducting research and faculties' productive behaviours are the most influential factors affecting students' attitudes toward science and social subjects. Further, student attitudes have been found to be positively affected by encouragement to engage in scientific behaviour, providing students with the opportunity to partake in scientific endeavours while also making it clear that every research project will be flawed and incomplete (Gelso et al., 2013).

Semantic differential Scale

Using a series of bi-polar scales, the semantic differential (Osgood et al., 1957) is a method of assessing a person's attitude toward something by asking them to rate it. Bi-polar refers to two streams that are diametrically opposed. For example, we could use a semantic differential scale to assess a student's attitude toward different teachers, as shown below:



The respondent is asked to consider the attitude object and assign a rating to it or them based on how well each adjective pair applies to it or them in the situation. Following Osgood and colleagues (1957), attitudes are divided into three distinct components and a semantic differential scale must be used to assess each of these components. They are as follows: Evaluation – whether or not the person has a positive or negative opinion of the attitude object. Potency is defined as the perceived strength of an attitude object's influence. If the attitude object is regarded as passive or active, this is referred to as its "activity." Individuals' replies can be presented on a grid to provide a summary of their attitude toward an object or person or their responses can be averaged or summed to provide an outline of the participant's attitude toward the object or person. The simplicity of this scale, when compared to more complex scaling methods, is a significant advantage in terms of producing results. Despite its ease of administration, the method is



also sensitive to small differences in attitude, highly versatile, dependable and generally valid in most situations.

Purpose of the Research

This research will investigate teachers' and students' attitudes towards research. This study will help teachers and students to develop a positive attitude towards research. This research will help teachers teach research courses, and students will know the importance of research as a course of study. The study objective was to assess the teachers' and students' attitudes towards research by using a semantic differential scale. This study is aimed at determining the teachers' and students' attitudes towards research in comparison to teachers, students, program of study and qualification on five constructs: research usefulness, positive attitudes, research anxiety, teaching research course, and difficulty of research. This study was specifically explored the following objectives:

1. To measure the attitudes of teachers and students attitudes towards knowledge of research.
2. To find out the difference between respondent's perceptions according to their level of qualification.

Methodology

This study is quantitative by nature, and a survey research method was used for the study. A semantic differential scale was developed to measure the students' and teachers' attitudes towards research. The researchers adapted the "Attitudes towards research" (ATR) scale, which was made by Papanastasiou (2005) and moulded it according to the semantic differential scale.

The population size for the study was large in numbers. Our purpose is to pilot the instrument. Therefore, the sample size for this study was 250 university-level students of social sciences, art and humanities. One hundred fifty teachers from the same disciplines were selected. Non-random Convenience sampling technique was applied to select the sample from the population. A hard copy of the instrument was distributed to the respondents for collecting data. About 356 teachers and students from one public and one private university responded to the questionnaire. As the following table describes, a summary of information regarding the demographics of the participants is provided.

Table 1

Respondents' Demographic information

Variables	Category	N	%
Gender	Male	93	26.1
	Female	263	73.9
Respondent category	Teacher	218	61.2
	Student	138	38.8
Program of study	BS (Hons)/M.A	188	52.8
	M.Phil.	96	27.0
	PhD	72	20.2
University	Public	243	68.3
	Private	113	31.7

Table 1 shows that there are a total of 356 respondents who responded to the instrument. Ninety-three of them are males, and their percentage is 26.1. Two hundred sixty-three are females, and their percentage is 73.1. According to the respondent's category, 218 respondents are students, and their percentage is 61.2, 138 teachers, and their percentage is 38.8. The table also shows that there are 188 respondents whose qualification is Masters and B.S (Hons) and their percentage is 52.8, 96 respondents qualification is M.Phil. And their percentage is 27, and 72 respondents' qualification is PhD, and their percentage is 20.2.

Instrumentation

According to Papanastasiou (2005), the Attitudes Towards Research (ATR) scale has thirty-two items that measure five different dimensions: research usefulness, positive attitudes, researcher anxiety, difficulty of research and relevance to life. The scale is divided into four categories: positive attitudes relevance to life,

negative attitudes relevance to life, and difficulty of research. Items are rated on a Likert scale of one to seven stars. For the rationale of the current research, the usefulness of research and the relevance of research to everyday life are combined. Another factor that is related to the teaching of the researcher is added. A semantic differential scale is used for this study. Initially, 64 adjective pairs were constructed on the basis of these above-mentioned five factors. It was presented in front of M.Phil. Scholars were also analyzed by three professors from the IER, University of the Punjab in Lahore, prior to the launch of the piloting instrument. Some questions were removed from the questionnaire, while others were combined into a single one. Following the completion of the entire procedure and the input of experts, a total of 28 adjective pairs were selected for this study. Cronbach's Alpha was used to determine the reliability of the scale value with a total of 28 items. The reliability of the scale value was .893. To analyze the collected information, inferential and descriptive statistics were used in conjunction with each other. All of the statements from the five factors were written down. The mean scores and standard deviations (SD) of all factors were calculated as well as their standard deviations. Students with different demographic variables were subjected to a t-test and (ANOVA) in order to determine the mean scores and differences in their research attitudes, respectively.

Table 2

Frequencies of Respondents by Students-Teachers and Qualifications

Category	f	%
Students	218	61.2
Teachers	138	38.8
M.A/B.S (Hons)	188	52.8
M.Phil.	96	27.0
Ph.D.	72	20.2

Table 2 shows that there are a total of 356 respondents who responded to the instrument; 218 respondents are students, and their percentage is 61.2, and 138 teachers, and their percentage is 38.8. Table 2 also shows that there are 356 total respondents: 188 respondents whose qualification is Masters and B.S (Hons) and their percentage is 52.8. Ninety-six respondents' qualification is M.Phil. and their percentage is 27, and 72 respondents' qualification is Ph.D. and their percentage is 20.2.

Table 3

Students and Teachers mean scores comparison about Research using a t-test

Factors	Students		Teachers		df	P
	M	SD	M	SD		
Research Usefulness	36.5688	8.22872	39.9275	6.21235	354	.001
Research Anxiety	26.3119	7.37376	29.5072	7.54088	354	.001
Research Difficulty	20.5642	5.40592	22.6087	6.61831	354	.002
Teaching Research Course	20.7661	5.25176	23.1304	4.94617	354	.202
Positive Attitude	29.2110	7.52333	32.8261	6.42522	354	.007

There are five factors in the instruments, which are shown in Table 3, and the means of student and teacher scores were compared. Among students (M 36.5688=, SD 8.22872) and teachers (M 39.9275, SD 6.21235; t (354) p=.001), a statistically significant difference in scores was found in factor 1 Research usefulness. The magnitude of the differences between the means was of a moderate magnitude.

Student research anxiety is a factor in factor 2. For students (M =26.3119, SD =7.37376), there was a statistically significant difference in scores compared to teachers (M =29.5072, SD =7.54088; t (354) p=.0057). The magnitude of the differences in the means was extremely small in comparison to one another.

In factor 3, the difficulty of research, the student There was a statistically significant difference in scores between students (M 20.5642=, SD =5.40592) and teachers (M =22.6087=, SD =6.61831; t



(354=.002), with the difference being statistically significant. The magnitude of the differences in the means was extremely small in comparison to one another.

In factor 4 Teaching Research course, student There was no significant difference in scores for students ($M= 20.7661$, $SD =5.25176$) and teachers ($M =23.1304$, $SD=4.94617$; $t(354) p= .202$).

In factor 5, Positive Attitude towards Research, student There was a significant difference in scores for students ($M= 29.2110$, $SD=7.52333$) and teachers ($M =32.8261$, $SD =6.42522$; $t(354) p= .007$). The magnitude of the differences in the means was Moderate.

Table 4

Respondents' Qualification Category Analysis by using one-way ANOVA

Age group	N	Mean	SD	Df	F	P
M.A/BS(Hons)	188	131.7766	25.30885	2	28.339	.010
M.Phil	96	140.8021	23.50481	353		
PhD	72	155.8194	15.75188			
Total	356	139.0730	24.91507	323		

Table 4 demonstrates that ANOVA was carried out in order to determine the attitude toward research as measured by the semantic differential scale (SDS). In accordance with their qualifications, participants were divided into three groups (Group 1: M.A./B.S. (Hons); Group 2: M.phil; and Group 3: Ph.D.). There was a statistically considerable difference in scores between the three groups at the p.05 level: $F(2, 353) = 28.339$, $p = .010$ for the three groups, despite the fact that the actual difference in mean scores between the groups was small and this difference reached statistical significance.

Discussion

Researchers could investigate teachers' and students' attitudes toward university-level research with this study. Researchers carried out a survey of university students and teachers in order to investigate their thoughts and feelings regarding various dimensions of research: the importance of research, the burden of research, the difficulty of research, the training that goes into conducting research, and an overall favourable attitude toward research. Jegstad (2021) & Rasool (2023) considered that for considering these findings, the study's findings demonstrate that teachers have significantly higher scores than their students. The main goal of this research was to learn more about teachers' and students' attitudes toward research. According to the findings of the study, participants with higher degrees did considerably better than participants with lower degrees. According to Shahid et al. (2022), the research attitude is greatly influenced by prior research experience. Researchers who are doing work on such research domains aimed to find the work of various participants, whereas action research was more optimistic ways about research attitudes. They found that senior management faculty members have a much more positive attitude toward research than faculty members in other ranks. They may be required to consider all aspects of the situation when making decisions. Teachers who are currently occupied in research have a better positive attitude toward research and perceive research to be less difficult, according to research conducted by (Sabzwari et al., 2010). Moreover, training program participants, as well as those who completed training or participated in previous research, were much more occupied in the research than the rest of the group.

Research on trending subjects received more favourable attitudes from teachers than students, which should be mentioned, and this is well supported by other studies. It is postulated in accordance that behaviours are learned by observing and imitating others who exhibit the behaviour in question. One of the most common forms of imitation is found in social relationships. The model exhibits particular actions, and the observer attempts to follow that when students enter school, teachers serve as role models for their students, who guide and inspire them from the start. Teachers' attitudes are extremely important when it comes to developing student attitudes. Students will imitate their teachers' actions and try to recreate them. Attachment to something the teacher enjoys, as well as an aversion to something the teacher despises, is fostered in turn by the students. The attitudes of students are the reflection of their teacher's behaviours and attitudes. This point focuses on influencing students' views for further attainments towards research culture (Ahmed, 2023).

Conclusion, Implications and Recommendations

It is critical to conduct research in order to better understand the attitudes and interests that teachers and students have toward research. According to the current study, teacher education programs should be updated in order to help students develop positive attitudes toward research. Teachers must be highly educated in effective teaching techniques and strategies that nurture students' love of research. Both academic and professional success is dependent on research in the classroom. In teacher education programs, teacher educators can identify modifications that will assist students in learning research, as well as promote a deeper positive appreciation of this subject among students.

The study further recommended that to get more authentic results, future research included a sufficient number of participants from more than two institutions. As for this research, only two private and public universities were taken from Multan and Lahore.

Moreover, the attitudes of teachers and students toward research need to be reflected with positive attitudes and a dedicated environment. For a better understanding of the process of attitude transformation among teachers and students, checked over time with different research projects.

This account recommended that it would be more beneficial to conduct a longitudinal study for getting the standardized data. The results of the study suggested the participants' baseline attitudes towards research. In this regard, pre-test design and post-test research design would be more valuable in determining the attitudes of teachers and students toward research.

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