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Students' Research Efficacy at University Level: Opinion of Teachers and Students in Pakistan

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Abstract

Research Efficacy is the most important aim that students use to ensure accountability to the public in terms of the value for money invested in the education systems, and to raise educational standards and quality of teaching in university. The major purpose of this study was to investigate the "students' research efficacy at university Level". The research was conducted at District Multan. The study focused on determining the relationship between teachers' and students' opinion 'at university level. Researcher used the methodology regarding co-relational research and research tool was developed in questionnaire form with a five-point Likert scale to find results on the basis of findings and conclusion. A total of 120 teachers and 542 students sample was taken from target population After the analysis of data, it was found that there teachers having supervisor's experiences as 1-5 years with 13 (20.8%), 6-10 years with 44 (36.7%), 11-15 years with 45 (37.5 %) and more than 15 years with 18 (15.0%) were taken as respondents .it was concluded that the frequency of urban, male, public schools, M.Phil./MS teachers having qualification and 11-15 years supervisor's experiences

teachers were greater in number and research efficacy of students as well as their usage in modifying instruction. It was recommended that institutions concentrate on turning pleasant things into helpful things, such as educational setup research based that promote them as a tool for not just communication and enjoyment but also learning. Future studies should be conducted to identify how teachers use their time on educational research efficacy like schools and colleges levels also. It was concluded from the study that the perception of teachers' and students for research efficacy at university level was different. It is also recommended that similar study should also be taken for high and higher secondary schools for better perception of research efficacy for both teachers as well as for students.

Keywords: Research Efficacy, University, Teachers, Students, Pakistan

I. Introduction

Research efficacy refers the individual ideology, thinking, point of view and way of life, people learn from social events, daily life and influence from social activities. Student research efficacy motivates the people and changes their behaviour (AbdLatib et al., 2012; Aldhafri et al., 2020; Aslam& Ali, 2017; Bandura, 1997; Czerniak & Schriver, 1994; Zimmerman, 2000).[1] People has strong belief that they can perform all activities based on their abilities. For this, there are four major processes for human development. First is Cognitive process, second is motivational, third is affective and last is selection process. Strong point of Student research efficacy is increasing the chance of success and provides the ways for living better life (Usher &Pajares, 2008; Zhang, 2002; Zimmerman, 2004)[2]

People are fully confident for any type of challenges and avoid the threats. People set the goals and maintain strong commitment. They more enhance themselves, if they face any failure situation (Anderson & Dixon, 2009; Brousard, 2002)[3]. Their aggressive approach is proving that they have fully

controlled the situation. That behaviour is helpful for reducing the stress. Student research efficacy, trusting one's abilities and powers for learning and performance, is a key trait for the academic success of university students McCombs and Marzano (1990) categorized Student research efficacy into two categories; one is academic efficacy and second is cognitive ability.

The academic self- efficacy focused on the student's perceived capability with respect to the tasks a student is expected to perform in academic sphere. So the students have will power to learn these skills in order to enhance their academic performance (Schepens et al., 2012). Both Cognitive abilities and academic self- efficacy have been recognized in literature as well-established predictors of academic performance. On the other side, specific mechanisms that may direct the relationship between cognitive abilities and academic Student research efficacy have not been adequately investigated (Schunk, 2004; Wolters, 2003).[4]

Many researchers found the factors effecting students' academic performance at college level which is linked with student behaviour, learning, guidance and family stress (Mushtaqet al., 2012).[5] This review manages the relationship between self-viability and execution has a solid affiliation (Meral et al., 2012[6]). The principle assignment of this review is the relationship between self-adequacy and scholastic accomplishment. Motivational procedures were utilized as an instrument in this review. Motivational systems scale was created by Pintrinchand Groot (1990). [7]Information was investigated from connection and Pearson's unmistakable measurements.

Student research efficacy is link with students confidence, beliefs on own abilities and complete the academic tasks like preparation for exams and writing term paper(s). Student research efficacy has strong effect on academic performance of the student. Teachers appreciate the students on good score, grades and give respect to student's opinion, ideas and thoughts during class (Multonet al., 1991) Student research efficacy alludes to an individual's confidence in his or her capacity to perform practices that are important to deliver particular execution accomplishments and to tackle troublesome

issues. Self-adequacy reflects trust by and by enthusiasm in the capacity to take control of their inspiration for conduct and social environment (Bandura, 1977, 1986, 1997; Czerniak&Schriver, 1994).[8]

According to Schunk (1995) [9]self-efficacy is the way of motivation, act of cognation and helping domain. Self-efficacy support the people for selecting activities, face the challenges, set goals and get achievements. Social activities derive the individual experiences, enhance personal qualities. According to different researches motivation, performance and studies for class test has an important position in student research efficacy (Schunk&Meece, 2006; Schunk&Pajares, 2002).[10]

Academic performance defines the obtained knowledge and skill improvement; complete the home work, test scores or marks assigned by the teacher (Von Wagner et al., 2009)[11]. "Academic performance is the outcome of education. The extent to which a student, teacher or institution has achieved their educational goals" (Czerniak&Schriver, 1994). [12]Academic Performance is an outcome of education. We analyse that how much student got maxim grade in educational career. And analyse the role of teacher, student and institution in the achievement of educational goals. Academic performance is measure by examinations or continuous assessment. Students' performance is linked with their mental level, intelligence, personality, interest, hard work, passion and confidence, teacher motivation, teaching methodology, curriculum activities and parent socialization (Multon et al., 1991).[13]

Students have supporting thing for academic performance. Family setup in term of education, which describing the way parents influence student academic achievement by shaping student skills, behaviour and attitude toward school. Parents influence students through the environment and discussion parents have with their children. Academic socialization can be influenced by parents' socio-economic status. Highly educated parents tend to have more inspiring learning environments(Schepens et al., 2012; Zhang, 2002).[14]

According to a study conducted on the impact of teacher's skills, student's work ethics and institutional environment on results of students in University of Multan, it was found that students' outcome at higher level education mostly depends upon the hard work, research efficacy and determination of the students. However, there are positive elements that are of Importance and quality of teaching method can enhance the students' performance.

2. Research Objectives

Following three objectives were formulated for the study.

1. To analyze students' perception about research efficacy at university level.
2. To analyze teachers' perception about students research efficacy at university level.
3. To relate students 'and teachers' views about research efficacy at university level.

3. Method and Procedure

3.1 Study Design, Population and Sample

The quantitative survey design was used for this research study to collect the quantitative data. A quantitative technique involves administering a collection of several pre - determined questions to a large number of participants: it is objective in nature. The design was quantitative survey because it involves the use of questionnaire.

Table 1

Population of study

University Name	Participants	Male	Female	Total	G.Total
Air University		3000	627	3627	
Education University	Students	636	1305	1941	6155
BZU Campus		438	149	587	
Air University	Teachers	66	112	178	628

Education University	130	180	310
BZU Campus	46	94	140

From Table 1, it was described that there were participants like Teachers and Students from three universities of the district Multan named as Air University, Education University and BZU Multan. Table 1 also gave the details about the population based on the gender male and female. Table 1 also depicted that there were 3000 male and 627 female students from Air University, 636 male and 1305 female students from Education University and 438 male and 149 female students from BZU University selected as population of study. Overall, there were 6115 students taken as population. Similarly, Table 1 also depicted that there were 66 male and 112 female teachers from Air University, 130 male and 180 female students from Education University and 46 male and 94 female students from BZU University selected as population of study.Overall, there were 628teachers taken as population. From Table 1, it was concluded that students from Air University were large in number and teachers were large in number of Education University. Same data was also shown in Figure 1 as given below.

Figure 1

Population of study

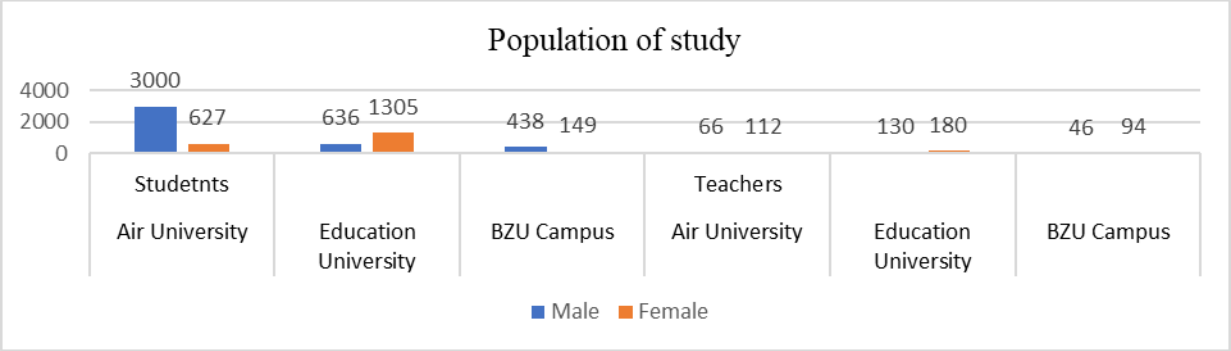


Table 2

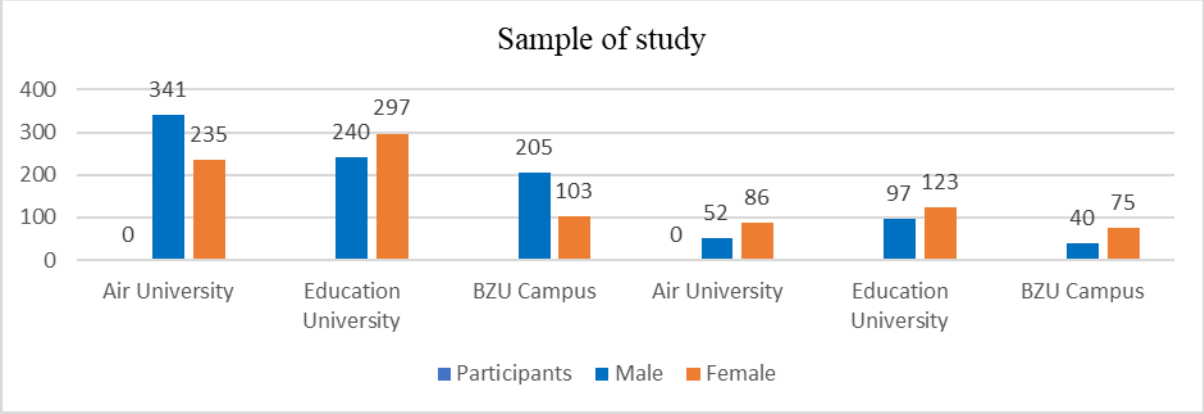
Sample of study

University Name	Participants	Male	Female	Total	G.Total
Air University		341	235	576	
Education University	Students	240	297	537	**1421**
BZU Campus		205	103	308	
Air University		52	86	138	
Education University	Teachers	97	123	220	**473**
BZU Campus		40	75	115	

From Table 2, it was found that the selected sample of students from three universities like Air University (Male=341, Female=235), Education University (Male=240, Female=297), and BZU University (Male=205, Female=103), having total number of 1421. From Table 2, it was found that the teacher's based sample was as from Air University (Male=52, Female=86), Education University (Male=97, Female=123), and BZU University (Male=40, Female=75), having total number of 47. From Table 2, it was concluded that students from Air University were large in number and teachers were large in number of Education University. Same data was also shown in Figure 2 as given below.

Figure 1

Sample of study



3.2 Tool Development and Validation

The adopted questionnaire was used in the current study. The researcher adapted questionnaire from the academic research efficacy scales developed by Chemers et al. (2001) and Zajacova et al. (2005.The questionnaire began with a brief explanation of the study's goal and a definition of research efficiency. Instead than focusing on a single platform, students in the present research were asked to provide information on personal experiences with various forms of research. Several areas, however, required the researchers to be specific about the instrument in question; therefore it is addressed directly with in questionnaire

The survey form was divided into two parts and each part dived in to 2 sections. Section I requested biographical information like as age (ordinal), gender, category), and research efficiency (i.e. participants were demanded to tick at least one type from .Sections 2 contained remarks on the research efficiency. These comments were graded on a five-point Likert scale, (1 = strongly disagree and 5 = strongly agree). There were a total of 23 statements. The part 2 questionnaire was also dived into 2 section in this part I section was based teachers demography information and 2 section based on students' research efficacy and 21 items were be included in this section. Three senior instructors assisted in determining the scale's and subscales' content and face validity. All three qualified teachers reviewed the questionnaire items separately and made recommendations. All experts provided positive feedback on the questionnaire's structure, wording, and formulation.To make additional refinements, the questionnaire was pilot tested with 25 randomly selected students from Multan's universities. Participants representing both male and female students and teachers were specifically asked to highlight any difficulties with the language and understanding of the questionnaire items. In general, participating students reported that the language of all the items was basic and easy to grasp.Cronbach's alpha was applied to assess the questionnaire's reliability. The findings show that the instrument has a reliability of 0.96. This indicates

that the questionnaire's reliability was acceptable. In general, a minimum percentage of reliability of.70 is required for research instruments. It demonstrates a 70 percent consistency in the data received by the tool. In this investigation, the instrument's reliability is strong because it is more than 0.70.

3.3 Tool Administration and Data Collection

The researchers obtained approval from the respective Registrars of Universities and Heads of Departments [HODs] before conducting the questionnaire to students. The researcher distributed the questionnaire to all 542 sample students and teachers 120 at their various institutions during working hours, either personally or with the assistance of friends. The entire data collecting procedure took about a month to complete.

3.4 Data Analysis and Results

The study was conducted at Govt. High School khan PurBaggaSher Tehsil and District Muzaffargarh to find out the effect of the peer tutoring on the academic achievement of students' in Chemistry at secondary level. The demographic information of the participants is given in the table 4.1.

Table 3: *Descriptive analysis of demographic information of teachers*

Sr. No	Factors	Categories	N	Percentage %
1	Location	Urban	120	100
		Rural	0	0
		Total	120	100
2	Gender	Male	88	73.3
		Female	32	26.7
		Total		100
3	Sector	Public	120	100
		Private	0	0
		Total	120	100
4	Qualification	MA/MSc	22	18.3
		MPhil/MS	82	68.5
		Doctorate	16	13.2

		Others	0	0
		Total	120	100
5	Professional Qualification	B.Ed	15	12.5
		M.Ed	105	87.5
		Others	0	0
		Total	120	100
6	Supervisor's Experience	1-5 Years	13	10.8
		6-10 Years	44	36.7
		11-15 Years	45	37.5
		More than 15 Years	18	15.0
		Total	120	100

Table 3described the analysis of teachers' perception about research efficacy and their demographic information of location, gender, age, qualification, professional qualification, and supervisor's experiences. Table 3 also depicted that teachers having different in their 120 (100%) belonging to urban area and 88 &73.3%) were male and 32 (26.7%) were female. The only public sector is taken for study and having a 120 (100. Similarly, it was also found from Table 3 that analysis of academic qualification of teachers as MA/MSc with 22 (18.3%), M.Phil./MS were in frequency 82 (68.5%), Doctorate was 16 (3.7%) and others were 0 (0 %). Similarly, Table 3 showed the data analyses of professional qualification as B. Ed were 15 (12.5%) and teachers having M. Ed were 105 (87.5%).

Table 3 showed that heads having supervisor's experiences as 1-5 years with 13 (20.8%), 6-10 years with 44 (36.7%), 11-15 years with 45 (37.5 %) and more than 15 years with 18 (15.0%) were taken as respondents. From Table 3, it was concluded that the frequency of urban, male, public schools, M.Phil./MS teachers having qualification and 11-15 years supervisor's experiences teachers were greater in number

Table 4

Descriptive analysis of demographic information of students

Sr. No	Factors	Categories	N	Percentage %

1	**Location**	Urban	325	60.0
		Rural	217	40.0
		Total	542	100.0
2	**Gender**	Male	243	44.8
		Female	299	55.2
		Total	542	100.0
3	**Sector**	Public	306	56.5
		Private	236	43.5
		Total	542	100.0
4	**Qualification**	MA/MSc	142	26.2
		MPhil/MS	212	39.1
		Doctorate	125	23.1
		Others	63	11.6
		Total	542	100.0
5	**Medium**	Urdu	0	0
		English	542	100.0
		Total	542	100

Table 4described the analysis of students' perception about research efficacy and their demographic information of location, gender, age, qualification and medium also. Table 4 also depicted that students having urban in their location were325 (60.0%) and rural students were 217 40.0%). The male students were 243 (44.8%) and female students were 299 (55.2%) as participants. The public sector was taken 306 (56.5%) for study and private sector's students were 236 (43.5. Similarly, it was also found from Table 4 that analysis of academic qualification of students as MA/MSc with 142 (26.2%), M.Phil. / MS were in frequency 212 (39.1%), Doctorate with 125(23.1%) and others were 63 (11.1%). Similarly, Table 4 showed that medium of student was only English and there were 542 (100%). From Table 4, it was concluded that the frequency of urban, male, public schools, M.Phil./MS having qualification with English medium only.

Table 5

ANOVA test foroverall teaches' perception about research efficacy

Overall Teachers' Perception about Research Efficacy	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	190.805	2	95.403	2.536	0.08
Within Groups	4402.320	117	37.627		
Total	**4593.125**	**119**			

Table 5 described the inferential statics of data analysis of ANOVA t-test for overall teachers' perception about the research efficacy at university level. Table 5 showed that the Overall teachers' perception about research efficacy at university level was found between the groups and within the groups having the values of 190.805 and 4402.320. It was found from the Table 5 that within the groups the value of sum of squares was greater (4402.320) showing that the perception was found more within group of teachers at university level. Similarly, the value of Mean square for between groups and within groups was as 95.403 and 37.627, there was a difference in mean square value of 57.776 which depicted that for both type of groups teachers' perception having a difference in strength. Similarly, from Table 5, it was also found that the value of "F" was 2.536 which was not large value and value of sig was 0.08 which was also less than the standard value of p=0.05. Finally, it was concluded from table 5 that teachers' perception about research efficacy at university level was insignificant.

Figure 5:

Table 6

ANOVA test for students' perception for efficacy in research workBased on university level

Affection to Research work with respect to university	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	301.465	3	100.488	23.290	.000
Within Groups	2321.236	538	4.315		

Total	2622.701	541

Table 6 described the inferential statics of data analysis of ANOVA t-test for overall students' perception about the research efficacy at university level. Table 6 showed that the Overall students' perception about research efficacy at university level was found between the groups and within the groups having the values of 301.465 and 2321.236. It was found from the Table 6 that within the groups the value of sum of squares was greater (2321.236) showing that the perception was found more within group of students' at university level. Similarly, the value of Mean square for between groups and within groups was as 100.488 and 4.315, there was a difference in mean square value of 96.173 which depicted that for both type of groups students" perception having a difference in strength. Similarly, from Table 6, it was also found that the value of "F" was 23.290 which was large value and value of sig was 0.00 which was also less than the standard value of p=0.05. Finally, it was concluded from table 6 that students 'perception about research efficacy at university level was significant

4. Discussion

Statistical data analysis of findings concluded as the performance rate of both control and this study aimed to assess the research-efficacy views of university teachers and students. The findings of the descriptive analysis demonstrate that the majority of pupils hold beliefs in their own abilities and research efficacy to succeed in university. They might be able to boost students' attention and self-assurance, and as a result, pupils might be better equipped to develop their critical thinking. Participants in their study described accomplishment about research efficacy as a tool for learning how to get over their shyness, despair, and anxiety. This leads to the conclusion that pupils' academic development would benefit from having research-efficacy views. The study's conclusions indicate that secondary school students are more likely to use their interest in various possibilities and learning practice.

Furthermore, by using their research-efficacy and achievement of students as communication tools, students' interactions with teachers, their families, and

friends may enable them to work effectively with their classmates to resolve conflicts in the classroom. In this study, research-efficacy sources and gender are significant since they relate to the Arslan (2013). The relationships among gender, academic achievement, grade level, socioeconomic position (SES), learning style, and students' perceptions of the sources of their research-efficacy were examined in this study. Multiple experiments were conducted to see if students' sources of research-efficacy varied depending on their gender. The study's results demonstrated a strong relationship between students' perceptions of learning and factors associated to performance, including gender, academic accomplishment, SES, grade level, and learning style. Later, it was determined that examining the sources of research-efficacy could help predict learning and performance that were linked to research-efficacy.

The results of the current study pointed out that students' academic performance will be strongly and favorably influenced by their self-efficacy beliefs and achievement motivation. Smith (2002) [15]and Tella (2007) [16]also described that research efficacy have a positive correlation with research orientation; the greater the level of research efficacy, the greater the level of upcoming attainment to be set. Furthermore, researches on research orientation show that goals vary in difficulty level, specificity and proximity. Goals that are precise, easy and short-term frequently lead to the higher level of research efficacy (Abouserie, 1995; Ommundsen et al., 2005; Pintrich& De Groot, 1990; Usta, 2017: Von Wanger et el., 2009).[17]

According to the study's findings, students said those students' research-efficacy beliefs and opinion of teachers and students helped them learn new things, provided interconnected learning so that information could be shared more easily, contributed to their learning success through specific groups, and helped develop their achievement in research efficacy for using information and communication in the environment

5. Conclusions and Recommendations

It was concluded from the study that the perception of teachers' and students' for research efficacy at university level was different. Moreover, it was also concluded that perception of teachers' was insignificant and students' was significant. Similarly, it was recommended that more focus is required for teachers' to pay attention on the research efficacy skill development or setup the activities that enhance the skill of research efficacy. It is also recommended that similar study should also be taken for high and higher secondary schools for better perception of research efficacy for both teachers as well as for students.

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