

Investigating Research Self-Efficacy of Research Project Supervisors at AIOU

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ABSTRACT

The purpose of this research study was to measure supervisor's Research Self Efficacy (RSE) and to measure RSE with respect to research tasks. Quantitative research approach was applied to measure the level of RSE . A sample of 100 supervisors was selected through purposive sampling to collect the data. RSE Scale originally developed by Phillip and Russle (1993) was adapted to measure the RSE of supervisors. Descriptive statistics such as mean and SD were applied to analyze the data. Findings of the study revealed the low level of RSE of supervisors on quantitative and computer tasks but high on research design skills, practical research skills, and writing skills. It was recommended that training workshops may be organized to enhance research supervisor's skills in quantitative and computer related tasks.

Keywords: AIOU, B.Ed., Research Self Efficacy, Distance Learning

INTRODUCTION

Research is a continuous process of finding the facts with the help of experiments and proper reasoning. This process aligns the society with the needs of current era. In the absence of research a society becomes stagnant and the development stops at a certain place. Research proves to be a bloodline to the development and construction of a society on the lines of modernism. Researchers are keen to find the solutions to the problems faced by society and finding the facts .The process of research is often called systematic because it proceeds under a set pattern and proves to be the key to reach the factual world (Ahmad, 2016). Looking around the world one can easily understand the value of research as from fountain pen to a fighter jet and from led pencil to spaceship; each and every thing is the fruit of research. Research plays a dominant role in the process of development. Looking behind about three decades we used the computers of a size equal to a big room and now this computer remains in our pockets in shape of a smart phone.

Research has its importance in all walks of life and when it comes to the subject of education, research becomes a vital part. Few decades back our education system was at very basic level but with the passage of time and application of research in this

field, it has been witnessed that there is a big revolution in the field of education. Now research is the basic element of the education system. Talking about the different tiers of education system it is implied that every tier or the level requires research (Basu, 2020). From Kindergarten to advance levels of education, research is playing its vital role all around the system. The research has turned many stones in the line of teaching to make this process more fruitful for the student, teacher and the society.

Teachers are the basic element of an education system. As discussed before, the vitality of research for each and every walk of life, it is very much easy to understand that how much it is necessary in the profession of teaching. If teachers don't tend towards the process of research then they become professionally stagnant (Chow et al., 2015). Here the questions arise. First that, is the teacher capable of research or not and the second, is the teacher capable to supervise a research. Thus both questions are of much importance because the whole structure of research system depends upon research self efficacy of the supervisor. Now this implies that the supervisor must have the research skills, qualification, experience, interest, ability and the attitude. If the supervisor lack in any one of the above said qualities then he cannot supervise the scholar properly. This ultimately causes a number of hindrances in research process.

The research self efficacy of the supervisor plays a very pivotal role in creating an environment that can be termed as lucrative for the research. According to Bishop et al. (1993), research self-efficacy may be conceptualized as the degree to which an individual believes she/he has the ability to complete various research tasks (e.g., conceptualization, analysis, writing). The efficacy of supervisor instills the element of confidence in the research activity of the student and in the supervisor himself. With all the required elements available the level of research efficacy rises and the scholar or researcher feels easy and comfortable in contacting and taking the opinion or guidance from the supervisor. This process is continuous and it prolongs till the completion of the project. RSE of a supervisor can boost up the energies and capabilities of the researcher to a higher level and hence the research can be proved as the more fruitful activity (Jones, 2012).

Every person in this world has different type of capabilities even though he can manage a given job up to the satisfactory level but every job requires different skills to complete it. In the field of research there are many skills that are required by a researcher. These skills on the whole make the research complete and perfect. These may include design, practical, writing, computer and quantitative or qualitative skills. These skills are strongly interrelated. So, the study will analyze each skill separately so that the whole environment of research can be brought forward with clarity.

With the identification of the importance of research the authorities have induced the research in teacher training program of B.Ed. This is aimed towards bringing in the quality in teachers' training and preparing teachers for future endeavors in the field of education. Teachers after going through this course will be well versed with the process and techniques of research and they may further introduce or inculcate this among the students. The purpose behind the introduction of this program is to bring forward the trained teachers who are trained researchers at the same time. The coming time has the requirement of research in each and every discipline of education. So, a batch of researcher teachers will add value to the research enabled education environment (Chow et al., 2015). This will not only hamper the research environment at large but it will move teachers towards critical thinking and research based scientific approach towards the solutions of the problems. The importance of this step

is very clear but again the question is about the quality of research and its competency and this all dependant over the research self efficacy of the supervisor. So it can be implied that the quality of teacher training program that include research, revolves around the efficacy. Literature proved that much research have been conducted for self-efficacy but if we observe, there are a few researches conducted about research self efficacy across different disciplines. The current study will cover this aspect in detail and effort will be made to measure the level of research self efficacy of research supervisors in B.Ed. Program at AIOU. It is an overall effort to add value to the teacher training program.

Theoretical Background

The whole research on research self efficacy of supervisors is based over the Social Cognitive Theory (Pasupathy & Siwatu, 2014). This theory was presented by Albert Bandura in 1989. Social cognitive theory says that people do not take effect from their environment and surroundings and also not fully motivated by their inner desires. People are used to take the effect and motivation from their surrounding and this behaviour depends upon the inverse effect of different factors available around them. In the light of this theory the characteristics of people are recognized through the availability of basic capabilities among them. Social cognitive theory relies upon the five basic capabilities to be measured or their level to be determine the value of self-efficacy. These capabilities are: Symbolizing capabilities, vicarious capabilities, Forethought capabilities, self-regulatory capabilities and self-reflective capabilities. The self-reflective capabilities cover the aspect of self-efficacy. The most important human characteristic is to assess himself. This capability makes them able to derive results by analyzing their own thought process and outside experiences. The use of this reflective capability about their different experiences and their prior knowledge they derive their generic knowledge about themselves and their surroundings. By the use of this capability people not only acquire the knowledge but they become able to change the way of thinking. By analyzing their thought process through self reflective method they may create, act upon or work on their ideas. They may check about the result of their thought process (Wood & Bandura, 1989).

This study was carried out to measure the level of B.Ed. distance learning supervisors' RSE at AIOU. Following research questions were made to achieve the objective.

- Up to what extent research supervisors possess the level of research efficacy?
- What is the level of Supervisors' Research self efficacy with respect to research methodology?
- What is the level of Research self efficacy with respect to writing skills?
- What is the level of Research self efficacy with respect to quantitative skills?

METHODOLOGY

The nature of the study was quantitative. Descriptive research design was used with survey method. The study aimed to measure one variable RSE with respect to demographic differences. Besides it also investigated RSE with respect to different research tasks. The main objective was to measure the level of Research Self Efficacy of supervisors of B.Ed 1.5 program. The population consists of supervisors of B.Ed 1.5 Program who were supervising research project (8613) in Rawalpindi, Islamabad,

Attock, Jhelum and Chakwal, Khushab and Bhakkar regions. . Data about these supervisors was collected with great difficulty due to the devastating wave of Covid-19. The response from regional offices was very much slow that a number of reminders were sent through e-mail and phone calls and this process cost a great wastage of time during this research. Exact and accurate number of all supervisors was not provided by some regions which created difficulty to calculate actual population. So the target population identified according to the given data was 172 supervisors. Non Probability sampling purposive method was used to select sample. Among the 172 supervisors, 100 supervisors were selected as a sample.

The current study adapted SERM to measure the level of research self-efficacy. The researcher took prior permission from the owner of the scale to use it in the study. SERM consists of 33 items to assess self-efficacy with respect to research design skills, practical research skills, quantitative and computer skills, and writing skills. This is 9 point likert scale in which each statement has scale from 0 – 9. Where 0 represents no confidence and 9 represents total confidence.

The SERM was distributed to 5 experts for Content validation. Content validation ensures that instrument measure what it is supposed to measure (Frank-Stromberg & Olsen, 2004). The scale was validated due to socio economic differences. Panelists examined each item critically. Research self-efficacy scale has been proved reliable with alpha coefficient from .94 to .96 (Jones, 2012). However pilot study was conducted to a sample of 25 supervisors and alpha reliability of scale and subconstructs was calculated.

Table 1

Alpha reliability coefficient of Research Self Efficacy scale (N = 25)

Scale	Cronbach's Alpha	Number of items
Research Self Efficacy	.95	39

Keeping in the research ethics, the principal of anonymity and confidentiality was strictly kept in the mind during the research. The personal data and the identity of the respondents were not disclosed. The data provided by the respondents was completely trusted and was honestly used without any manipulation or addition and subtraction. The data was collected with the informed consent of the respondents and they were completely briefed about the purpose of the research and their role in it.

Results

The appropriate statistical tests were applied on data. In order to measure RSE, descriptive statistics was used. Descriptive statistics defined as conversion of raw facts and figures into a form that enabled us for understanding, interpreting, re-arranging and in manipulating data sets for descriptive information. Response rate was 73 % which include 44 males and 26 females. Total 4 demographics were considered in research i.e. gender, age, qualification and experience. Gender was obviously male and female. Age was categorized as less than 30 years, 30-40 years and above 40 years. There were only two qualifications available among supervisors. Those were M.Phil, and PhD. Experience was also categorized as less than 5 years, 5-10 years and above 10 years.

Level of Supervisors' Research Self-Efficacy

Table 2

Level of RSE among supervisors in the sample

Scale	N	Mean	SD
Research Self-Efficacy	70	6.30	1.01

Table 2 shows the mean and standard deviation of RSE of the sample. The mean value 6.30 show that there is high level of RSE among the supervisors. Regarding first research question of the study; this study showed that supervisors of B.Ed 1.5 program have high level of RSE.

Level of Supervisors' RSE on Research Tasks

Table 3

Level of RSE among supervisors on subscales

Subscales	N	Mean	SD
RDT	70	7.10	.971
PTS	70	7.47	.966
QCT	70	4.76	1.36
WT	70	6.30	.1.52

Table 3 shows the mean and standard deviation of RDT, PTS and WT of the sample. The mean values of subscales show that there is high level of confidence for completing these tasks. While mean value for QCT shows that supervisors possess low level of confidence for quantitative and computer tasks.

According to Figure 1, on comparing means across different research tasks, supervisors showed low confidence level for quantitative and research tasks as comparison with research design tasks, practical tasks and writing tasks.

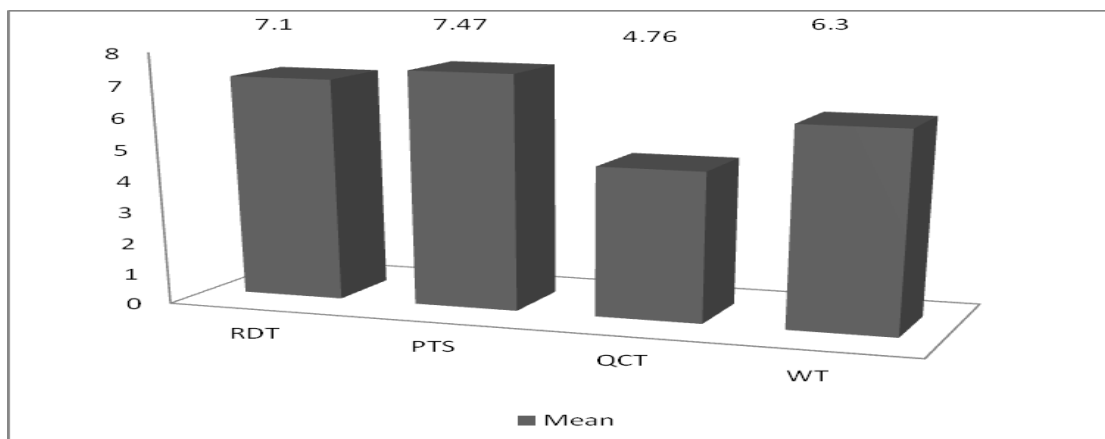


Figure 1: *Comparison of mean scores on research tasks*

DISCUSSION

The study aimed to find out the level of RSE and demographic differences among supervisors of B.Ed Program who are supervising research project. Besides, level of RSE was also measured with respect to different tasks. Data analysis showed that level of RSE was high among supervisors. So the majority of the supervisors are confident to complete research tasks successfully and it is in line with the research conducted by (Griffioen et al., 2013). At the same time RSE with respect to different tasks were also measured and results presented clear picture that supervisors are much confident to complete research design tasks, practical tasks and writing tasks but they are not confident about quantitative and computer tasks.

In order to know about the differences of RSE on the basis of gender, results showed a significant difference on the basis of gender. Males have high level which shows that they are more confident to complete research tasks successfully as compared to the females. These results were expected and consistent with the previous researches (Noble, 2015; Landino, 1988). But on the basis of age, there is no significant difference in RSE. It was aligned with past research conducted by Noble (2015). The findings of his research showed no significance difference in RSE with respect to age. Difference of experience in RSE was not significant as previous study by (Dembo, 1985) proved that experience has no significant difference. Similarly qualification difference was not significant among supervisors.

The future researchers can conduct a research to explore the factors effecting the RSE of the supervisors. This will produce a way forward to increase the self efficacy by covering these factors. Furthermore another research can find the relationship between RSE of the supervisors and the learning of the student about their research skills.

RECOMMENDATIONS

Based on findings and discussion of this research study, the following recommendations are made:

- The university must arrange some workshops, seminars or refresher courses for supervisors to improve statistical and computer skills.
- RSE must be measured in different disciplines at different levels to promote healthy research culture. Future researcher may explore other dimension like the relationship between RSE and research training environment, research productivity, interest etc. to create an environment that becomes very much lucrative for research.

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