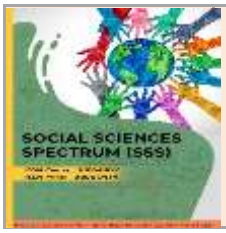

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Exploring Future Teachers' Perceptions of Professional Development for Classroom Research Practices

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Abstract

Research into classroom practice is now considered a key attribute of effective teachers. This study examined future teachers' attitudes towards research in classroom teaching as they prepare to become practicing educators. It aimed to achieve three major objectives: (1) to explore future teachers' use of research-related knowledge and skills, (2) to analyze prospective teachers' preferences for conducting research, and (3) to assess their mindset towards educational inquiry in the classroom. To achieve these objectives, a survey research design was adopted. The sample consisted of 115 prospective teachers selected through simple random sampling. A closed-ended questionnaire was used as the instrument for data collection. The validity of the questionnaire was established through expert opinions, and its internal consistency was calculated. Both inferential and descriptive statistics were employed to analyze the collected data. The results revealed that while future teachers exhibited a positive attitude towards research, they struggled to effectively apply their knowledge and skills in integrating research with classroom practice. The study also examined demographic variables, particularly gender differences. Based on the findings, it is strongly recommended that future teachers engage in research assignments focused on classroom teaching practices.

Keywords: Research, Future Teachers, Professional Development, Classroom Teaching, Research Assignments.

Introduction

Classroom practice of teaching is highly linked with educational research to improve teaching (Manning, 2009) and learn a great deal about students (Woolfolk, 2004). Teachers face a number of problems about lesson plans, teaching methods, content, assessment strategies, classroom environment, students' behavior and achievements. In order to manage problems in classroom practice of teaching, the professional teachers need to prove research competencies. Because, the concept of teacher as a researcher has developed completely (Duthie & Chia, 1995; Farnan & Feam, 1992; Glesne, 1991; Hammersley, 1993; Huillet, et al, 2011; Kelsay, 1991; Latta, 1996; Oberg & McCutcheon, 1990; Peeke, 1984; Postholm, 2009). Teachers' research has been endorsed as valuable and valid inquiry for the improvement of teaching (Clarke & Erickson, 2003) practice in the classroom. Getting involved teachers in research help to solve problems concerning curriculum, pedagogy (Smith & Smith, 2006), classroom management and evaluation (Robinson & Lai, 2006) as well as students' accomplishments (Fox, et al, 2007; Martin, 2001; Kincheloe, 2002). Teachers' professional development in research stimulates their professional practice (Kincheloe, 2002) as regards classroom teaching. Teachers also constantly increase the body of research on different educational issues (Smith & Smith, 2006) of teaching practice. Categorically, the quality of classroom practice of teaching may be accelerated by providing teachers with the comprehension and skills in research.

National professional standards for teachers in Pakistan describe that teachers should be prepared with skills in research (Govt. of Pakistan, 2009) to accomplish effective teaching practice in classroom. Some teacher education institutions in Pakistan are neglecting this aspect deliberately. Such institutions arrange for other courses in place of developing research capabilities among pre-service teachers. Particularly, such institutions do not offer thesis/project/article assignment to future teachers. If future teachers are not getting involved in conducting research, they would not manage classroom problems properly. Certainly, teachers having no knowledge in research would effect on the provision of quality teaching in classroom.

Other institutions of teacher education are producing future teachers with the skills of conducting research in order to deal with educational problems and issues. Such institutions offer courses for teachers' theoretical understanding as well as thesis for skills development in research. Research know-how and attitude in future teachers is produced to fulfill requirement of a degree program and solve problems in the classroom when they would join teaching profession.

The present study is aimed at investigating future teachers' knowledge, skills, preferences and attitude towards research when they would become working teachers. This study aimed at to attain the following four objectives: (i) to explore future teachers' use of the knowledge and skills in research. (ii) to analyze prospective teachers' preferences in doing research when they would become functioning teachers. (iii) to measure prospective teachers' mindset towards educational inquiry in classroom. (iv) to compare male and female future teachers' use of the knowledge, skills, preferences and attitude about educational research.

Methodology

This study was descriptive in nature. It also used survey technique to collect the data from the respondents.

Participants

The sample comprised on 115 students (73% female and 27% male) of MA Education studying at public sector universities in Lahore, the capital of the province of Punjab. The sample of the

investigation had been selected through simple random sampling technique. The 24.4% female and 22.6% male correspondents had 1st division while the 48.7% female and 4.3% male correspondents had 2nd division in their Bachelor degrees. Mostly future teachers were studying in semester second and fourth. The 8.7% female and 0.0% male had above three CGP (Cumulative Grade Percentage), 3.5% female and 0.9% male had only three CGP and 60.9% female and 26.1% male had below three CGP in their previous semesters of the MA Education classes.

Instrumentation

A close-ended questionnaire was developed which was further based on the studies of Demircioglu (2008) and Holincheck (2012). It had seventeen items relevant to future teacher' knowledge and skills (7 items) regarding educational research, preferences in doing research (6 items) and attitude (4 items) towards research in classroom practice of teaching. All the items were worded positively for students' comprehension. It was employed five-point Likert scale ranged from strongly disagree (1) to strongly agree (5) for respondents to mark their level of agreement with the each given statement. The legitimacy of the questionnaire was validated through experts' opinions. The internal consistency of the instrument was also calculated through Cronbach's Alpha technique on SPSS that was .71.

Data Collection and Analysis

The researchers personally collected the data by visiting the institutions where students were studying. The rate of return was 100%. Future teacher' questionnaire responses were analyzed using SPSS version 16 to compute percentage, mean and standard deviation to analyze future teacher's knowledge, skills, preferences and attitude towards educational research. Data was presented in tables and in graphs. The trend of data was also displayed in graphs.

RESULTS

Table 1. *Valid Percent Responses of Future Teachers' Use of the Knowledge and Skills in Research*

Statement	Valid Responses in Percentage				
	SDA	DA	UD	A	SA
Identify educational problems at classroom level.	15.7	18.3	0.9	54.8	10.4
Determine objectives of research.	07.0	20.0	0.9	55.7	16.5
Write review of related literature.	9.6	19.1	1.7	60.0	9.6
Design the methodology of research.	4.3	52.2	0.9	13.9	28.7
Prepare instrument of research.	20.0	37.4	7.0	30.4	5.2
Analyze the data.	16.5	40.9	0.9	21.7	20.0
Write report of classroom research.	13.9	57.4	0.0	11.3	17.4

Table 1 presents valid percentage responses of future teachers about use of the knowledge and skills in educational research. Fifty six percent future teachers agree that they can identify educational problems at classroom level, 72.2% future teachers agree that they can determine objectives of research, 69.6% future teachers agree that they can review the related literature, 56.5% future teachers disagree that they can design the methodology of classroom research, 57.4% future teachers disagree that they can prepare instrument of research, 57.4% future teachers disagree that they can analyze the data and 71.3% future teachers disagree that they can write the

report of classroom research. The mean values of future teachers' responses regarding knowledge and skills in research are also presented in bar graph such as:

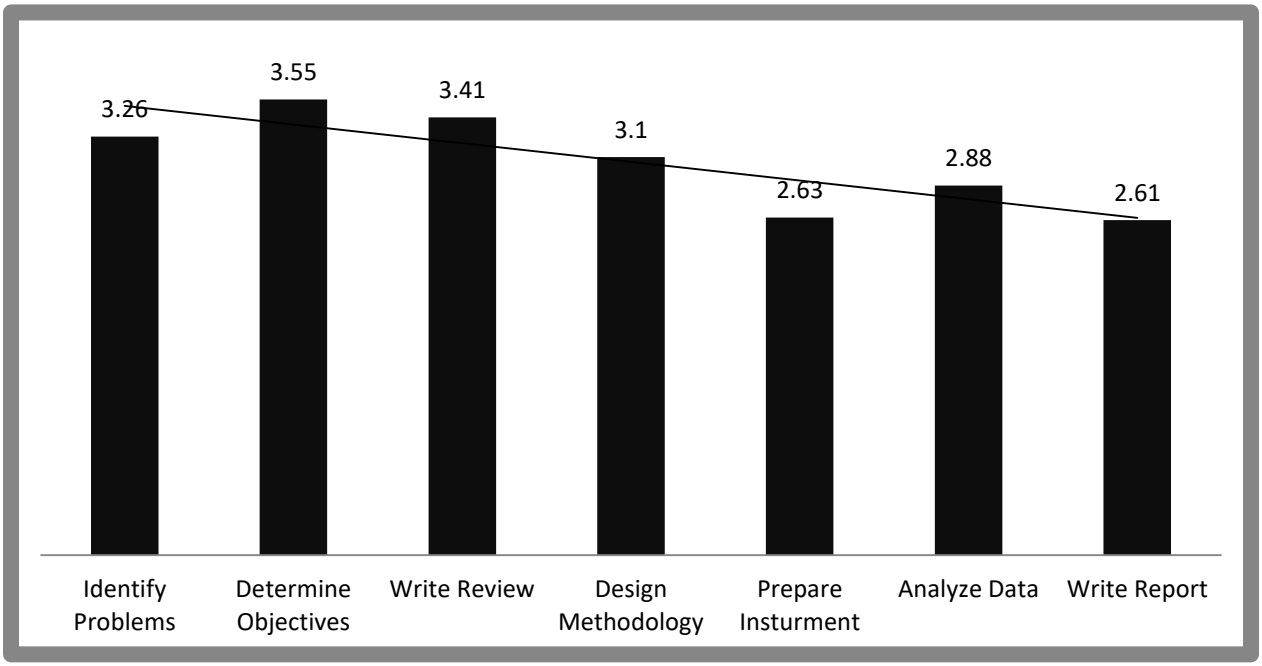

Figure 1. *Future teachers' knowledge and skills in educational research*

Table 2. *Valid Percent Responses of Future Teachers' Preferences in Doing Research*

Statement	Valid Responses in Percentage				
	SDA	**DA**	**UD**	**A**	**SA**
Conduct research in teaching strategies to improve classroom practice of teaching.	04.3	29.6	00.0	51.3	14.8
Conduct research for improving the learning of students.	00.0	00.0	1.7	51.3	47.0
Conduct research in educational evaluation and assessment.	00.0	02.6	05.2	66.1	26.1
Conduct research in different subjects such as math, science, social study and English etc.	00.0	16.5	7.8	47.8	27.8
Conduct research in teaching professionalism.	1.7	2.6	2.6	42.6	50.4
Conduct research in information communication technology (ICT).	1.7	15.7	2.6	58.3	21.7

Table 2 illustrates valid responses of future teachers' preferences in conducting research when they would become the practicing teachers. Sixty seven percent future teachers agree that they would do research at classroom level to improve practice of teaching, 98.3% future teachers agree that they would do research for the improvement of the learning of students, 92.2% future teachers agree that they would carry out research in educational evaluation and assessment areas, 75.6% future teachers agree that they would do research in different subjects such as math, science, social

study and English etc., 93% future teachers agree that they would conduct research in teaching professionalism and 80% future teachers agree that they would carry out research in the information communication technology (ICT) for the improvement at classroom teaching practice. The mean values of future teachers' responses regarding preferences in doing research when they would become functioning teachers are also presented in bar graph such as:

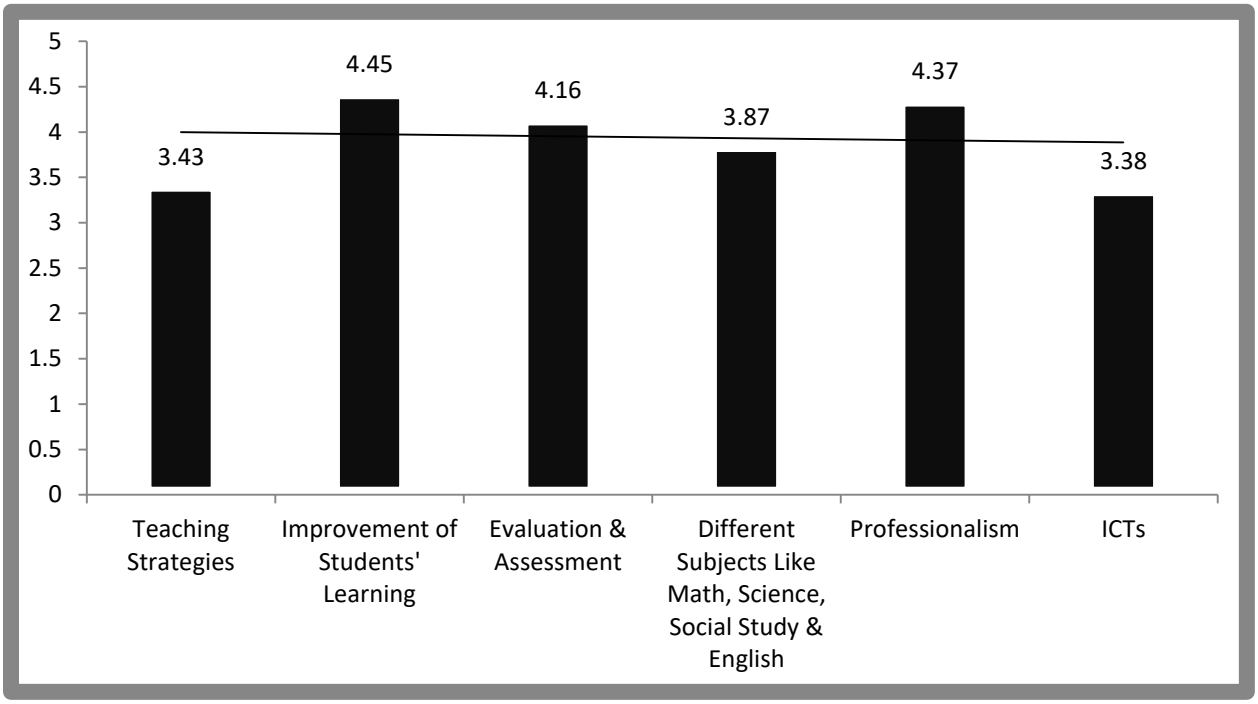

Figure 2. *Future teachers' knowledge and skills in educational research*

Table 3. *Valid Percent Responses of Future Teachers' Mindset towards Educational Inquiry in Classroom*

Statement	**Valid Responses in Percentage**				
	SDA	**DA**	**UD**	**A**	**SA**
Read educational research articles which will improve classroom practice of teaching.	4.3	9.6	4.3	40.9	40.9
Write scholarly articles for educational journals.	7.8	20.0	2.6	52.2	17.4
Participate in training about research to improve knowledge and skills in research.	1.7	3.5	00.0	47.8	47.0
Attend the conferences for the improvement of teaching practice at classroom level.	1.7	7.8	2.6	47.0	40.9

Table 3 presents valid percentage responses of future teachers' attitude towards educational research at classroom level. Eighty one percent future teachers agree that they read educational research articles which will improve their classroom practice of teaching, 69.6% future teachers agree that they will write scholarly articles for educational journals, 94.6% future teachers agree that they will participate in training about educational research for improving knowledge and skills in research and 87.9% future teachers agree that they will attend the educational conferences for

the improvement of teaching practice at classroom level. The mean values of future teachers' responses regarding attitude towards research are also presented in bar graph such as:

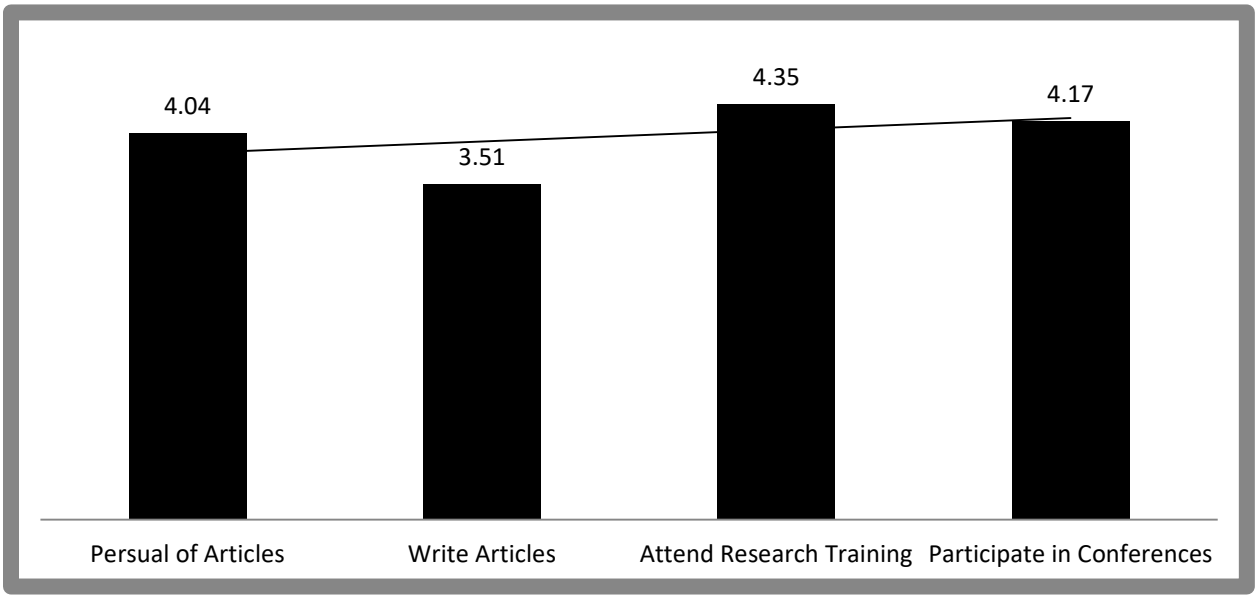

Figure 3. *Future teachers' attitude towards research when they would become functioning teachers*

Table 4. *Comparison between Male and Female Future Teachers about Knowledge and Skills, Preferences and Attitude towards Educational Research*

Statement	**Male Future Teachers N = 31**		**Female Future Teachers N = 84**	
	Mean	**Std. Deviation**	**Mean**	**Std. Deviation**
Knowledge and skills in educational research	22.29	3.56	21.13	3.78
Preferences in doing research	24.35	2.40	24.01	3.52
Attitude towards educational research.	16.32	2.44	15.98	3.20

Table 4 reflects the comparison between male and female future teachers regarding the knowledge, skills, preferences and attitude towards educational research. The above table reveals that male future teachers mean value 22.29 is greater that female future teachers mean value 21.13. The mean values of the comparison between male and female future teachers regarding the knowledge, skills, preferences and attitude towards educational research is also presented in bar graph such as:

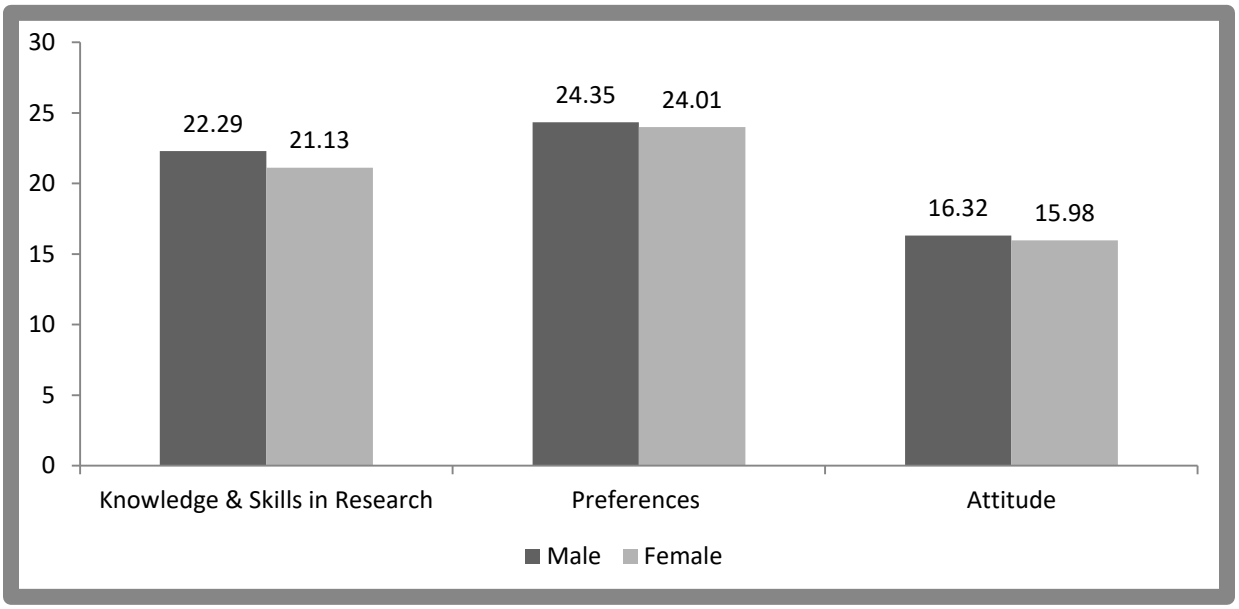

Figure 4. *Future teachers' comparison on skills, preferences and attitude in research*

Discussion and Conclusions

Carrying out research in the classroom is an essential part of practice of teaching (Hammersley, 1993; Peeke, 1984). Through doing research, teachers not only improve their practice (Manning, 2009) but also produce the knowledge for other peer working within the same context (Cain, 2011). Future teachers are required to have knowledge and skills in research (Govt. of Pakistan, 2009). This study analyzed future teachers' professional development for the knowledge, skills, preferences and attitude towards educational research when they would become practicing teachers. Four research questions were determined conceptually. On the basis of these research questions, four objectives were determined. A closed-ended questionnaire with five point Likert scale was employed to collect data. Statistical techniques such as percentage, mean and standard deviation were calculated to analyze future teachers' knowledge, skills, preferences and attitude towards educational research. Results showed that future teachers could identify the educational problems, draw the objectives and write the review of the related literature in educational research. But they could not design the methodology, prepare the instrument, and analyze the data and report of their classroom research. As mentioned in the study of Linden, et al (2012) that some introductory courses were contributed to enhance teachers' knowledge and skills in research. It is further described by Everton, Galton, & Pell (2002) who find out in their study that teachers are given extended opportunity for further professional study to provide them with the knowledge and expertise to engage productively both with and in research.

This study also found out that future teachers preferred doing research at classroom level in the areas of improving the learning of students, teaching professionalism and educational evaluation and assessment. This result somewhat agreed with the Huillet, Adler & Berger (2011) who reported with the help of other studies that teachers researches focused on the pedagogical issues related to their practice.

Future teachers demonstrated positive attitude towards perusal of research articles, attending conferences and training to improve their classroom practice of teaching. This result is partially compatible with Harrison, Dunn & Coombe (2006) that designing a small research project focused

on reading and attending conference and training positively affect their attitude towards educational research.

It was additionally inferred from this study that male future teachers contrary to female future teachers had more knowledge, skills in educational research whereas both had similar preferences and attitude towards the educational research while they would become functioning teachers in classroom practice of teaching.

It is strongly recommended that future teachers should launch research assignments regarding classroom practice of teaching. Through this study, the researchers intend to suggest that all the teacher education institutions may put emphasis on improving future teachers' knowledge and skills in research. Such programs must be offered in their courses to improve their skills in instrumentation, data analysis and report writing. It is further recommended that all institutions of teacher education in Pakistan must offer thesis writing on any educational problem for providing practical skills in research so that future teachers may solve their classroom problems regarding teaching and learning process. Keeping in view the results of this study, it is suggested that future teachers' knowledge, skills and attitude towards research should be enhanced keeping in view their future responsibilities when they would become functioning teachers. Moreover, it is suggested that a study may be carried out to investigate future teachers' perceived knowledge and skills effects on the academic achievement of students.

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