

THEORETICAL KNOWLEDGE AND PROFESSIONAL PRACTICE IN TEACHER EDUCATION: GAPS AT APPLICATION LEVEL IN DISTANCE EDUCATION PAKISTAN

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Abstract

The common problem of the teacher education is the gap between what the student teachers know and how they use this knowledge in the real world situation. What strategies can be adopted to minimize this gap? Has been remained a core issue of the research studies at national and international level. The present study focus on to investigate the level of application and gaps between theoretical knowledge and professional practice as well as to develop strategies for bridging these gaps. Quantitative approach with concurrent triangulation design was used to conduct the study. Student teachers (n = 400) and teacher educators (n = 10) were selected as sample through stratified sampling technique. Observation and questionnaires were adopted as instruments of the study. Overall, good and neither good nor poor level of application of the theoretical knowledge with considerable and significant gaps were identified. A significant difference was observed between the student teachers' perceptions and observation records of the researcher. The concepts of close collaboration among teacher education institutions and practice schools, developing laboratory schools, reflective practices, extended duration of teaching practice, model lessons, proper adjustment of teaching practice in time table and strengthening the role of mentors were identified and recommended.

1.Introduction

This research study was aimed at investigating the issues concerning the most important challenge of gaps between theoretical knowledge and professional practice in distance teacher education. Pre-service teacher education provides knowledge and skills to the student teachers that are practicum to their workplace as a teacher. Professional development starts with a specific experience as well as an abstract understanding of the situation is created through the analysis of the experience which results in its transfer value (Ulvik, 2014). The school environment does not provide a chance to student teachers for practicing the pedagogies in classroom with necessary resources, to encourage in-depth learning of children as well as their own judgments (Government of Pakistan, 2006). The studies have attested the relationship of the theoretical knowledge and practical skills provided to the students in their pre-service education with their effectiveness in the classroom as a beginning teacher (Good et al., 2006). The common perception about the teacher education is that the teacher education programs focus on what students know rather than how they use this

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knowledge (Fraser & Spiller, 2005). There are also great concerns about the lack of integration between different types of knowledge, teaching practice (knowing how) and theoretical knowledge or university course work (knowing that) (Sim, 2006, Wilson, 2006).

Thieson, (2000) argued that the concurrent use of knowledge in each pedagogical phase and context should be experienced by the student teachers on campus through strategies which focus on practically relevant propositional knowledge. In Pakistan, there has been a perception of student teachers about the teaching practice of B.Ed program as ineffective from the implementation perspectives (Qazi, Rawat, Sharjeel& Devi, 2008). We, as researchers, believe that professional practice is a tool that results in illuminating the teacher's teaching methods that guide students to be involved in meaningful learning events and experiences. So, it is crucial to study the perspectives of student-teachers, practice school teachers and observation records of the researchers themselves regarding the practical experiences of student teachers.

1.1 Research Problem

The teacher education regarding the Bachelor of Education (B. Ed) lasts for a year consisting of theoretical and practical components. The objective of the theoretical component is to prepare the student teachers with the expansion of pedagogic horizons in their respective domains of expertise in real classroom settings. The practical component lasts for four to six weeks which is assumed to give an in-depth exposure of the student teachers in a real classroom teaching (Qazi, et al., 2008).

The present study investigated the gaps and strategies for closing the gaps between theoretical knowledge and professional practice in distance teacher education in Pakistan. The study was conducted through the experiences and perceptions of student teachers, practice school teachers as well as through the observation records of the researchers themselves.

1.2 Objectives of Study

The following were the objectives of the study:

1. To find out the level of application of the theoretical knowledge by the student teachers during their teaching practice.
2. To find out the gaps between theoretical knowledge and professional practice in distance teacher education.
3. To find out the differences among the perceptions of student teachers, school teachers and observation records of the researchers regarding the application level and gaps between theoretical knowledge and professional practice.

1.3. Significance of the Study

The study was vital due to its consideration of the perspectives of student teachers, school teachers as well as of the observation records of the researchers in the real contexts of classroom. Therefore, the study may help the stakeholders of distance teacher education to adopt the realistic strategies for minimizing the gaps between theoretical knowledge and professional practice. The study was equally helpful for student teachers, practice school teachers, administrators and policy makers to take right decisions for the development of quality teachers as well as for the well being of the teacher education in Pakistan.

2.Literature Review

The development of quality in education is closely linked to the quality of teachers developed through the teacher education system in the country. Isani and Virk (2005) viewed about the process of teaching as an activity and perceived the nature of teacher education as a process of specialized grounding for teachers. Almost all the policies and plans for education in Pakistan acknowledged the need and importance of teacher education in promoting quality teachers for the well being of the education system in Pakistan (Ranjha, Muhammad & Alam, 2013; Kayler, 2009).

Teaching is not only a profession but it is an art and a craft, or a highly sophisticated type of craft (OECD, 1990). With the concept of an artist and a craftsman, the student teachers must have to adapt the designed programme to the situation they find themselves in (Goodlad, 1990). For this reason they have to inquire into this particular practice on the spot via the school practicum, or by analyzing written cases, audio-visual cases and oral reports. After the investigation, the student teachers have to connect the selected information or the subject matter through the rearranged filter of their subjective theory with the characteristics of the real situation in which they will be teaching (Vermunt, 1998).

One of the major and long-standing challenges of pre-service teacher education programs has been to strike a balance between the theoretical knowledge and practice of the profession (Bates, 2010; Smith, 2008). Internationally there has been observed a growing emphasis on bringing teachers' training concept linked to schools and making its alignment to changing needs of the schools (Ali, 2011). The literature contains a large body of research identifying significant inadequacies in teacher education programs enabling students to apply the knowledge and skills of their pre-service preparation in the workplace (Murray, Nuttall, & Mitchell, 2008). This statement by Skilbeck and Connell (2004, p. 12) is representative of the views of many critics; "There is a widespread criticism of educational theory courses notably by students in training, beginning teachers and school principals."

It is considerably disquieting to note that, as far back as the 1920s, Dewey (1928) expressed similar concerns. Others suggested that separating theory from practice created a false dichotomy and that teaching is a profession in which theory is embedded in and inseparable from practice (Carr, 1987; Lenz Taguchi, 2007). Lenz Taguchi (2007, p. 278), for example, argued that because theories in education are constituted by and perpetually reconstituted as "collectively and culturally-specific materialized meaning-making." It is, therefore, not possible to determine where theory ends and practice begins.

A substantial body of previous research has confirmed the existence of a gap between the theoretical knowledge and practice in schools (Cochran-Smith, 2009; Valentia, Martin, Place & Grossman, 2009). Allen, (2009) concluded that the theory practice gap was co-produced and sustained through social interactions during front-end training programs in the university and school institutional arrangements and initial employment.

Almodaress, (2009) concluded that the reflective practice with ICT had positive impacts for strengthening the relationship between theory and practice in teacher education. Hussain, Jumani, Sultana & Iqbal, (2009) found that the Business English Teaching was facilitated and improved through the use of ICTs and the teachers needed special training regarding the practices and implementation of ICTs.

Hussain and Mehmood, (2010) also revealed that the school based internship had a central role in the professional development of prospective teachers and the student teachers obtained competencies and skills through the internship program.

Qazi et. al. (2008) found that the teaching practice was ineffective from its implementation perspective. Rahman, Jumani, Akhtar, Chishti, & Ajmal, (2011) concluded that the teachers' training had a positive relationship with effective teaching in terms of students' achievement. Jumani (2007), found that the curriculum of distance education was less weighed on students' background and culture and teachers focused more on the grasp of knowledge rather than other aspects of personality development. He concluded that the instructional material was prepared for teachers in B. Ed program but there was a gap among the coordination of teachers while implementing in the classrooms.

3.Methodology

Concurrent data triangulation design was used to collect and analyze the data.

3.1. Population and Sampling

All the students, enrolled in one year B. Ed program of distance teacher education institutions under the umbrella of Allama Iqbal Open University Islamabad were considered as the population of the study. Stratified sampling was used to select the sample of the study. 400 student teachers in equal proportion from four area study centres were selected as sample of the study. One hundred teachers were taken as sample of the study from twenty practice schools with equal proportion from each school. 200 observations of forty student teachers, selected from four area study centres.

3.2. Instruments

After the review of related literature, an observation protocol and questionnaires for student teachers and teachers were developed. The observation check list contained only quantitative portion of the instrument. Whereas, the questionnaires included two open ended question items with quantitative portion of the observation checklist. The open ended questions were about to investigate the challenges and problems as well as to develop strategies for filling the gaps between theoretical knowledge and professional practice. Five point Likert scale was used to get the responses. The instruments were developed regarding four categories of theoretical knowledge i. e. lesson planning and organization skills, instructional skills, management skills and evaluation techniques.

3.3. Data Analysis

The researchers used SPSS 18 to analyze the data. Mean scores of the percentage responses, ANOVA as well as the Tukey's HSD were used to find out the results. Data was interpreted at 0.05 alpha level for significant difference.

Table 2.1 Interpretation Criteria of Mean Scores

S. No	Mean Range Interpretation Criteria
1	Below 1.75 Very Poor with Complete Gap
2	1.75 - 2.75 Poor with Critical Gap
3	2.75 - 3.25 Neither Good Nor Poor with Significant Gap
4	3.25 - 4.25 Good with considerable Gap
5	Above 4.25 Excellent with insignificant Gap

4.Results and Discussion

Following were the results and findings of the data. The following alphabetical symbols were used to identify the types of data sources;

X = Student Teachers, Y = Teachers and Z = Observation Records.

Table 2 Data Triangulation with ANOVA and Tukey's HSD

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Sr. No	Items	Me an			F	Sig.
		X N= 3 80	Y N= 9 4	Z N= 2 00		
1	Selecti on of Appropriate Objectives	3.7 3	3.4 2	3.4 6	5.62 7	. 00 4
2	Selecti on of an appropriate Content	3.5 3	3.2 9	3.2 5	5.23 0	. 00 6
3	Organizing Presentation with Logical Sequence	3.5 1	3.2 6	3.2 3	5.42 0	. 00 5
4	Selecti & Organization of on an Appropriate Learni Material ng Selection of Activities	3.5 9	3.4 0	3.1 6	11.4 04	. 00 0
5	according to the Logical sequence	3.6 9	3.3 5	3.4 0	7.30 9	. 00 1

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In table 2, the ANOVA results showed a significant difference among the responses of student teachers, practice school teachers and observation records. The ANOVA results also showed no significant difference for few categories. Through Tukey's HSD (Annexure, A), for most of the categories of theoretical knowledge, there was found a significant difference between the responses of student teachers and observation records. However, except for few categories, there was no significant difference between the responses of practice school teachers and observation records. There was also a significant difference, for most of the categories, between the responses of practice school teachers and student teachers.

Overall, the student teachers and teachers identified a good level (MS; 3.25-4.25) of application with considerable gaps for theoretical concepts of lesson planning and organization. However, the observation records identified neither good nor poor level (MS; 2.75-3.25) of application with significant gaps for categories (2, 3 & 4 respectively).

There was identified a good level of application regarding the theoretical concepts of instructional skills. However, the teacher educators and observation records also identified neither good nor poor level (MS; 2.75-3.25) of application for categories (3 & 7) and (2, 7, 8 & 9) respectively. Overall, the observation records identified a lowest level of good application for all remaining categories.

In the context of classroom management skills, student teachers and practice school teachers identified good level of application except neither good nor poor level of application for categories (2) and (1, 2 & 10) respectively. The observation records also identified good level of application for theoretical concepts of categories (3, 4, 5, 7 & 9 respectively) whereas, neither good nor poor level for categories (1, 2, 6, 8 & 10 respectively).

The student teachers and teacher educators identified good level of application for all categories of evaluation techniques except neither good nor poor level for three categories (3, 5&9). The observation records identified good level of application for categories (4, 6, 7 & 8 respectively) but neither good nor poor level for six categories (1, 2, 3, 5, 9 & 10 respectively).

In conclusion, there was identified a successful application of the theoretical concepts by the student teachers with considerable gaps between theoretical knowledge and professional practice. Observation records identified successful application at neither good nor poor as well as at poor level with significant and critical gaps as compared to the student teachers themselves. The practice school teachers also identified successful application of the theoretical concepts but at medium level of student teachers and observation records. The teacher educators perceived more closure to the observation records as compared to the student teachers.

4.1 Strategies for Bridging Gaps at Application Level

Two questions were asked by the student teachers and practice school teachers to develop strategies for bridging gaps between theoretical knowledge and professional practice in distance teacher education. These questions were about,

1. The problems and challenges faced by the student teachers during teaching practice
2. The strategies to fill the gaps between theoretical knowledge and professional practice in teacher education

The student teachers and teachers gave mixed responses to the question items and those were summarized as under.

4.2. Problems & Challenges of Teaching Practice

1. Poor response from the pupils and mentor teacher
2. No proper adjustment of student teachers in time table of practice school
3. No proper access of student teachers to the computer laboratories
4. Unavailability of laboratory schools
5. Gaps between training curriculum and school curriculum
6. Ill concept of participation of student teachers in school meetings and adjustment problems
7. Poor coordination between the supervisors and mentor teachers
8. Poor motivation of school teachers towards innovation in teaching and centralization of powers in the system for availability of resources
9. Poor motivation of student teachers and their uncertainty about future placement
10. No proper concept of rewards for supporting teachers, head teachers and supervising teachers
11. Limitations of male supervisors in female practice school

4.3. Strategies to Fill the Gaps

1. Proper concept of laboratory schools associated with training institutions
2. Close coordination among training institutions, practice schools and educational organization
3. Legitimate support to the teaching practice
4. Proper training and rewards for supervising teachers and mentor teachers
5. Proper adjustment of student teachers in time table of schools
6. Increased duration of teaching practice session, microteaching session and partnership among schools and training institutions
7. Strengthening student teachers' freedom of decision making in the classroom teaching
8. Availability of audio-visual aids and information communication technologies
9. Assessable course content for teaching practice
10. Including private sector in teaching practice concept

5. Discussion

The major theme of the study was to find out the application level and gaps between theoretical knowledge and professional practice of student teachers as well as to develop strategies for bridging these gaps.

Overall, there was identified a good level of application with considerable gaps between theoretical knowledge and professional practice. However, the observation records, overall, indicated neither good nor poor level of application with significant gaps. Gujjar, Ramzan and Bajwa (2011) also found that the student teachers properly plan the lesson before teaching. Ralph and Noon (2004) also found that the teacher candidates were highly rated in the context of lesson planning as compared to the unit planning.

Overall, the results of the study were in line with the previous research conducted in the field of investigating the connections between in-field and on-campus components of teacher education programs. Allen and Peach (2007) also attested as, "pre-service program aligns well with some principles of work integrated learning but falls short of conforming with some others". Gujjar, Ramzan and Bajwa (2011) are in line with the findings that the teaching practice enhances the ability of student teachers for planning of lessons as well as for management of the classroom. Ralph and Noon (2004) observed that the beginning teachers were competent in the area of management however, with a room for improvement.

It is evidenced that the theory acquired through the theoretical component provides enough information to the student teachers about teaching. However, they take exposure of real world teaching situation through their teaching practice (Kiggundu & Nayimuli, 2009). Teaching practice also provides an opportunity to the student teachers to integrate theory with their first hand experiences during their teaching practice (Buchner & Hay, 1999). Perry (2004) also pointed out that the teaching practice gives meanings to the knowledge acquired through the theoretical component of teacher education.

The major problems were non availability of proper resources, low importance given to the student teachers and adjustment, shortage of time for teaching practice, poor motivation of teachers as well as of student teachers, low level of coordination among training institutions and school administration and gaps between training curriculum and school environment.

The strategies for bridging the gaps between theoretical knowledge and professional practice included close collaboration among training institutions and practice schools, availability of resources, strengthening the freedom of student teachers, adjustment of student teachers in time table and increased duration for teaching practice. These findings are in line with the findings of Gujjar et al. (2010), Azeem (2011), Hmaidi et al. (2014), Manzar Abbas & Lu (2013), Ekundayo (2014), Goh and Mathews (2011) and Okobia, Augustine & Osagie (2013).

An important question is therefore "What is the effect of the failure in closure of theory-practice gap on student teachers?" The academic and personal development of student teachers is effected through this failure and this results in their inability to solve problems. Isaac (2012), in favour of this phenomenon, suggests the following reasons for the lack of integration of theory into practice. a) Hidden curriculum – learning takes place without formal planning. b) Poor level of curriculum development – the theory does not compliment the practice. c) Poor emphasis on practical skills in the classroom. d) Lack of using different effective teaching and learning strategies. e) Lack of role models in the real world situations. f) Saturation of workload. g) Educators and management rift. h) Idealistic and impractical nature of theory. i) Poor nature of formal feedback on formative evaluation j) Ill planning in support for students.

6. Conclusions and Recommendations

This study attempted to investigate the application level and gaps between theoretical knowledge and professional practice in distance teacher education. The study focused on one year B. Ed programme through the perspectives of student teachers and practice school teachers.

There were identified good, neither good nor poor and poor level of application with considerable, significant and critical gaps for theoretical concepts during the teaching practice of student teachers. There was a significant difference between the responses of student teachers and observation records of the researcher. Teachers showed no significant difference with observation records as well as with the student teachers' perceptions at a time. However, the teachers were close in perceptions with the observation records as compared to the student teachers for most of the theoretical concepts.

Different themes emerged regarding the problems and challenges faced by the student teachers in applying the theoretical knowledge during their teaching practice. A poor level of coordination among supervising teachers and mentor teachers, ill response of the school teachers towards the student teachers, poor access of resources and low level of student teachers' participation, poor concept of mentoring and shortage of time with poor adjustment of student teachers in the time table were identified as major problems and challenges of student teachers.

Close collaboration among teacher education institutions and practice schools, extended duration of teaching practice, reflective practices with the concept of model lessons, availability of suitable resources, strengthening the concept of mentor teachers through proper training and incentives, accepting the legitimate role of student teachers and their full participation in school decisions were the major recommendations of the study. Same study may be conducted regarding the gaps between theoretical knowledge and professional practice in comparative perspectives of different teacher education programs.

References

- Ali, T. (2011). Understanding how practices of teacher education in Pakistan compare with the popular theories and narrative of reforms of teacher education in international context. *International Journal of Humanities and Social Science*, 1(8), (208-222). Retrieved from http://ecommons.aku.edu/pakistan_ied_pdck/84.
- Allen, J. M. & Peach, D (2007). Exploring connections between the in-field and on-campus components of a preservice teacher education program: A student perspective. *Asia Pacific journal of Cooperative Education*, 8(1), 33-36.
- Allen, J. M. (2009). The "Theory Practice Gap" turning theory into practice in a pre-service teacher education program. Unpublished Doctoral Thesis, Australia: Faculty of Arts, Humanities and Education. Central Queensland University
- Almodaires, A. (2009). Technology supported reflection: toward bridging the gap between theory and practice in teacher education (Unpublished Ph.D thesis). Enschede: University of Twente.
- Bates, R. (2010). Australian teacher education: Some background observations. *Journal of Education for Teaching*, 28(3), 217-220. DOI: 10.1080/0260747022000021331.
- Buchner, J. & Hay, D. (1999). Learning to teach: a framework for teacher induction. *South African Journal of Education*, 19:320-326.
- Carr, W. (1987). What is an educational practice? *Journal of the Philosophy of Education*, 21, 163-175. DOI: 10.1111/j.1467-9752.1987.tb00155.x.
- Dewey, J. (1928). Progressive education and the science of education. In R. Archambault (Ed.). *In John Dewey on education: Selected writings* (pp. 230-259). Chicago: University of Chicago Press.

- Ekundayo, H. T., Along, H. O., Kolawole, A. O. & Ekundayo, S. K. (2014). Teaching Practice Exercise for Education Students in Nigerian Universities: Evaluation. 18(5).
- Fraser, D. & Spiller, D. (2005). Effective Teachers. In C. McGee & D. Fraser (Second Ed.), *The Professional Practice of Teaching* (pp, 67-83). South Bank Victoria: Thomson Dunmore Press.
- Goh, P. S., & Matthews, B. (2011). Listening To the Concerns of Student Teachers In Malaysia During Teaching Practice. *Australian Journal of Teacher Education*, 36(3). <http://dx.doi.org/10.14221/ajte.2011v36n3.2>.
- Golden-Biddle, K., Estabrooks, C. A., & Germann, K. (2003, September 25-26). Is there a theory-practice gap? Some thoughts from organizational studies. Paper presented at the Knowledge Utilization Colloquium, Laval, Canada.
- Good, T. L., McCasline, M., Tsang, H. Y. Yhong, J., Willy, C. R. H., Bozack, A. R. et al. (2006). How well do initial teachers teach: Does type of preparation make a difference? *Journal of Teacher Education*, 57 (4), 410-431. Retrieved from <http://eric.ed.gov/?id=EJ922092>.
- Goodlad, J. I. (1990). *Teachers for our nation's schools*. San Francisco: Jossey-Bass.
- Government of Pakistan (2006 February, 28). *Education in Pakistan: A white paper, document to debate and finalize the national education Policy*. Islamabad: National Education Policy Review Team, Ministry of Education.
- Gujjar, E. A., Noureen, B., Saifi, S. & Bajwa, J. A. (2010). Teaching Practice: Problems and Issues in Pakistan. *International Online Journal of Educational Sciences*, 2010, 2 (2), 339-361.
- Gujjar, E., Ramzan, M. & Bajwa, M. J. (2011). An evaluation of teaching practice: Practicum. *Pak. j. Commer, Soc. Sci.*, 5(2), 302-318.
- Hussain, I & Mehmood, S. T. (2010). Practice teaching or internship: Professional development of prospective teachers through their pre-service training programmes. *Journal of Educational Research*, 13(1), 105-122. Retrieved from http://www.iub.edu.pk/jer/JOURNAL/JER_Vol_13_No_1.pdf
- Hussain, M. A., Jumani, N. B., Sultana, M. & Iqbal, M. Z. (2010). Exploring perceptions and practices about information and communication technologies in business English teaching in Pakistan. *International Scholarly and Scientific Research & Innovation*, 4(1), 1127-1131.
- Isaac S 2012. *Correlation of Theory and Practice*. Sree Abirami College of Nursing, Coimbatore: India.
- Isani, U. A. G. & M. L. (2005). *Higher Education in Pakistan: A Historical and Futuristic Perspective*. Islamabad: National Book Foundation.
- Jumani, N. B. (2007). Study on the competencies of the teachers trained through distance education in Pakistan. Unpublished post doctoral thesis. Australia: Faculty of Education, Deakens University.
- Kayler, M. A. (2009). Teacher development and learner-centred theory. (Master thesis in education), United States University, Teacher Development, 13(1), 57-69.
- Khan, S. H. & Saeed, M. (2009). Effectiveness of preservice teacher education programme (B.Ed) in Pakistan: Perceptions of graduates and their supervisors. *Bulleton of Education and Research*, 31(1), 83-98.

- Kiggundu, E. & Nayimuli, S. (2009). Teaching practice: A make or breakphase for student teachers. *South African Journal of Education*, 29:345-358.
- Korthagen, F. A. J. & Kessels, J. P. A. M. (1999). Linking theory and practice: Changing the pedagogy of teacher education. *Educational Researcher*, 28(4), 4-17. doi:10.3102/0013189X028004004.
- Korthagen, F. A. J., Loughran, J. J. & Russell, T. (2006). Developing fundamental principles for teacher education programs and practices. *Teaching and Teacher Education*, 22, 1020-1041. doi:10.1016/j.tate.2006.04.022.
- Korthagen, Fred, A. J. (2011). *ORBIS SCHOLAE*, 2011, Vol. 5, No. 2, pp. 31–50, ISSN 1802-4637.
- Lagemann, E. C. (1999). *An Auspicious Moment for Education Research? Issues in Education Research, Problems and Possibilities*. San Francisco: Jossey Boss Publishers.
- Lenz Taguchi, H. (2007). Deconstructing and transgressing the theory- practice dichotomy in early childhood education. *Educational Philosophy and Theory*, 39, 276-290.
- Murray, S., Nuttall, J., & Mitchell, J. (2008). Research into initial teacher education in Australia: A survey of the literature 1995-2004. *Teaching and Teacher Education*, 24, 225-239. doi:10.1016/j.tate.2007.01.013.
- Ngoh, M. & Tan, I. (2000). Teachers in Singapore schools, *REACT*, 1, 1-9.
- OECD (1990). *The Teacher Today. Tasks, Conditions, Policies*. Paris: OECD.
- Perry, R. (2004). Teaching practice for early childhood. A guide for students. Available at <http://www.Routledge.com/catalogues/0418114838.pdf>.
- Qazi, W., Rawat, K. J., Sharjeel, M. Y. & Devi, S. (2008). Teacher perception about implementation strategy of B. Ed teaching practice in real school classrooms: issues and challenges. *The S. U. Journal of Education*, 38, (54-76). Retrieved from http://www.usindh.edu.pk/suje/Issue2008_09/Articles/04.pdf.
- Ralph, E. G. & Noonan, B. W. (2004). Evaluating teacher candidates' teaching in the extended practicum. *Brock Education*, 14(1), 1-18.
- Ranjha, N. Muhammad, T. & Alam, M. M. (2013). Study to analyze B.Ed graduate performance in secondary schools regarding pre-service training in Punjab, Pakistan. *Academic Research International*, 4(5), 430-444. Retrieved from <http://www.savap.org.pk/journals/ARInt./Vol.4%285%29/2013%284.5-43%29.pdf>.
- Rizvi, M. (2004). *The Relationship between School reforms and teacher professionalism in Gov,t primary school in Karachi, Pakistan*. Australia: Queensland university of technology.
- Sanders, W. L. & Rivers, J. C. (1996). Research project report: Cumulative and residual effects of teachers on future student academic achievement. Knoxville, TN: University of Tennessee Value–Added Research and Assessment Center. Retrieved from http://www.mdk12.org/practices/ensure/tva/tva_2.html.
- Sim, C. (2006). Preparing for professional experiences- incorporating pre service teachers as 'communities of practice'. *Teaching and Teacher Education*, 22(1), 77-83. doi:10.1016/j.tate.2005.07.006.
- Skilbeck, M., & Connell, H. (2004, September). Teachers for the future: The changing nature of society and related issues for the teaching workforce. A Report to the Teacher Quality and Educational Leadership Taskforce of the Ministerial Council

- for Education, Employment Training and Youth Affairs Canberra, ACT: Retrieved from <http://trove.nla.gov.au/version/166841546>.
- Smith, R. (2008, July 09-11). Paradigms and problems of palliatives: Rethinking the "future-orientation" of teachers. Paper presented at the ATEA Conference, Noosa, Qld.
- Ulvik, M. (2014). Student- teachers doing action research in their practicum: why and how? *Educational Action Research*, 22(4) 518–533, <http://dx.doi.org/10.1080/09650792.2014.918901>.
- Vermunt, J. D. (1998). Metacognitive, cognitive and affective aspects of learning styles and strategies: A phenomenographic analysis. In *Higher Education*, 31, 25-50. <http://eric.ed.gov/?id=EJ524598>.
- Wideen, M., Mayer-Smith, J., & Moon, B. (1998). A critical analysis of the research on learning to teach: Making the case for an ecological perspective on inquiry. *Review of Educational Research*, 68, 130–178.
- Wilson, E. K. (2006). The impact of an alternative model of student teacher supervision: Views of the participants. *Teaching and Teacher Education*, 22(1), 22–31. doi:10.1016/j.tate.2005.07.007.
- Cochran-Smith, M. (2009). Recruiting teacher education: Inquiry, evidence and Action. *Journal of Teacher Education*, 60(3), 458-469.
- Valencia, S., Martin, S., Place, M., & Grossman, P. (2009). Complex interactions in student teaching: Last opportunities for learning. *Journal of Teacher Education*, 60(3), 304-322

AppendixA

Application of Tukey's Test

Sr.	Lesson planning & organization				Instructional process skills				Classroom management			
No.	Mean	Tukey's HSD Subset for Alpha 0.05			Mean	Tukey's HSD Subset for Alpha 0.05			Mean	Tukey's HSD Subset for Alpha 0.05		
		1	2	3		1	2	3		1	2	3
1	y	3.4250			z	3.4750			Z	2.7750		
	z	3.4681	3.4681		y	3.5319	3.5319		Y		3.1930	
	x		3.7313		x		3.7667		X		3.3083	
	Sig.	.940	.101		Sig.	.856	.074		Sig.	1.000	.616	
2	z	3.2500			z	2.9450			Z	2.6850		
	y	3.2979			y		3.6383		Y	2.8511	2.8511	
	x	3.5375			x		3.7458		X		3.1229	
	Sig.	.054			Sig.	1.000	.616		Sig.	.368	.070	
3	z	3.2350			y	3.2340			Z	3.51		
	y	3.2660			z	3.2650			Y	3.57		
	x	3.5167			x		3.5750		X	3.60		
	Sig.	.054			Sig.	.966	1.000		Sig.	.804		
4	z	3.1600			z	3.2900			Z	3.4650		
	y	3.4043	3.4043		y	3.4787	3.4787		Y	3.6702	3.6702	
	x		3.5979		x		3.5979		X		3.7979	
	Sig.	.101	.236		Sig.	.190	.514		Sig.	.170	.502	
5	z	3.3511			z	3.3200			Z	3.000		
	y	3.4050			y	3.4043	3.4043		Y	3.2872	3.2872	

	x		3.6917		x		3.6000		X		3.3313
	Sig.	0.890	1.000		Sig.	.756	.223		Sig.	.050	.931
6					z	3.4050			Z	3.0450	
					y	3.4681	3.4681		Y	3.2872	
					x		3.6729		X	3.3188	
					Sig.	.833	.148		Sig.	.085	
7					z	3.1950			Z	3.6250	
					y	3.4468	3.4468		Y	3.6809	
					x		3.5229		X		3.9313
					Sig.	.092	.802		Sig.	.827	1.000
8					z	3.1950			Z	3.2250	
					y	3.4468	3.4468		Y	3.4468	3.4468
					x		3.5229		X		3.5771
					Sig.	.092	.802		Sig.	.097	.445
9					z	3.1300			Z	3.4350	
					y	3.2979			Y	3.4574	
					x		3.6396		X	3.5250	
					Sig.	.222	1.000		Sig.	.643	
10					z	3.2660			Z	3.0600	
					y	3.2700			Y	3.1383	3.1383
					x		3.5938		X		3.3542
					Sig.	.999	1.000		Sig.	.771	.141

Sr. No.	Evaluation techniques				Teaching methods				Audio-visual aids & technology use			
	Mean	H S D Subset for			Mean	Tukey's HSD Subset			Mean	Tukey's HSD Subset for		
		Alpha 0.05				Alpha 0.05				Alpha 0.05		
		1	2	3		1	2	3		1	2	3
1	y	3.0850			Z	3.300			z	3.700		
	z		3.4362		Y	3.4104			y	3.819		
	x		3.410		X	3.4894			X	3.888		
	Sig.	1.000	.971		Sig.	1.000			Sig.	.190		
2	z	3.0800			Z	3.7800			Z	3.60		
	y		3.3723		Y	3.8000			Y	3.62		
	x		3.4646		X	3.9563			X	3.88		
	Sig.	1.000	.695		Sig.	.216			Sig.	.056		
3	z	2.58			Z	3.2800			Z	3.595		
	y		2.8511		Y		3.6383		Y	3.798		
	x			3.17	X		3.7146		X		4.07	
	Sig.	1.000	1.000	1.000	Sig.	1.000	.753		Sig.	.163	1.000	
4	z	3.3617			Z	3.1900			Z	3.46		
	y	3.3650			Y	3.4043	3.4043		Y		3.85	
	x		3.6896		X		3.4938		X		4.05	
	Sig.	1.000	1.000		Sig.	.192	.748		Sig.	1.000	.159	
5	z	3.23			Z	3.000			Z	3.57		
	y	3.12			Y	3.2872	3.2872		Y		3.87	
	x	3.25			X		3.3313		X		3.89	
	Sig.	.523			Sig.	.050	.931		Sig.	1.000	.986	
6	z	3.0450			Z	3.285			Z	2.785		
	y	3.2872			Y	3.468	3.468		Y	2.938		
	x	3.3188			X		3.567		X	2.947		
	Sig.	.085			Sig.	.134	.556		Sig.	.383		

7	z	3.26			Z	2.032			Z	2.07		
	y	3.34			Y	2.055			Y	2.08		
	x		3.61		X	2.106			X	2.09		
	Sig.	.792	1.000		Sig.	.762			Sig.	.99		
8	z	3.53			Z	2.862			Z	2.55		
	y	3.71	3.71		Y	2.880			Y	2.73		
	x		3.88		X	3.033			X	2.76		
	Sig.	.164	.182		Sig.	.296			Sig.	.221		
9	z	2.42			Z	3.710			Z	2.30		
	y		2.70		Y	3.755			Y	2.31		
	x			3.00	X	3.846			X	2.39		
	Sig.	1.000	1.000	1.000	Sig.	.422			Sig.	.737		
10	z	3.16			Z	1.915			Z	3.03		
	y		3.51		Y	2.043			Y	3.05		
	x		3.58		X	2.083			X	3.09		
	Sig.	1.000	.844		Sig.	.176			Sig.	.837		