Pakistan Social Sciences Review *P-ISSN 2664-0422*
June 2020, Vol. 4, No. 2 [591-607] *O-ISSN 2664-0430*

Pakistan Social Sciences Review
www.pssr.org.pk

RESEARCH PAPER

Instructional Practices of Public Sector Teacher Education Programs: Teacher and Student Perspective

Muhammad Javaid Iqbal [1] Shaista Syeda [2] Muhammad Naeem Sarwar [3]

1. Associate Professor, University of Education, Lahore, Punjab, Pakistan
2. Lecturer, University of Education, Lahore, Punjab, Pakistan
3. Ph. D Scholar, University of Education, Lahore, Punjab, Pakistan

PAPER INFO

Received:
April 14, 2020
Accepted:
June 15, 2020
Online:
June 30, 2020

Keywords:
Moral Development
Bachelor Program
Teacher Educator
Prospect Teacher

Corresponding Author:
javaidkhan@ue.edu.pk

ABSTRACT

The bachelors of Education programs in the Pakistani public sector universities are promising for competent and skilled future teachers for schools. The current study designed in investigating the perception of teacher educators and prospective teachers regarding the instructional practices of Bachelor of Education program of public sector university. Mann-Whitney U test was used to compare the opinion of teacher educators and prospective teachers, whereas median was calculated to find out level of subjects' response. Teacher educators and prospective teachers have the same opinion on the instructional practices occurring in the classrooms of B.Ed. program. Teacher educators and prospective teachers had varying opinion on sharing of experiences by the teacher educators with prospective teachers with no significant difference. Lesson presentation was viewed effective by Teacher Educators and Prospective Teachers but existed significant existed difference between their opinions with small effect size

Introduction

Teacher education is an integral part of school education. It was started when public schools were opened to educate masses. At first, "Normal Schools" were established to produce teachers for public/common schools in Europe and United States of America. In the sub-continent (Pak-India) teacher education programs were launched not before the arrival of Europeans, especially the Britishers. Introduction of modern education system in the sub-continent required teachers, who can teach English as subject and other modern and scientific subjects. Normal schools, teacher training schools, and teacher training colleges were established to prepare school teachers. Teacher education institutions had the responsibility of not only providing qualified teachers to schools according to their demand but also to maintain quality of teachers.

Pakistan had to face the problem of shortage of qualified teachers since its birth. It is echoed in the proceedings of "The Pakistan Educational Conference". The committee constituted to deliberate on primary and secondary education recognized the need of trained teachers to make primary education compulsory and free. The committee acknowledged that "a properly trained and reasonably well-paid teaching profession was essential to the building up of great state". The committee suggested free and compulsory primary education by observing that "the introduction of free and compulsory education would require an army of teachers". This state of affairs clearly indicates that the Pakistani leadership was well aware of not only the importance of education but also about the supply of qualified teachers in schools. The same concern is appeared to be seen in the later reports and policies of education.

The National Educational Policy 1998-2010 analyzed the situation of teacher education prevailing in Pakistan very skillfully. The expansion in education sector, demand and supply, and quality of teachers as stated in the policy is as: "With our recent focus on ensuring massive access to Education for All, the teacher education system has quantitatively expanded to keep a reasonable equilibrium in the demand and supply situation. On the contrary, the qualitative dimension of teacher education program has received only marginal attention resulting in mass production of teachers with shallow understanding of both the content and methodology of education."(p. 47)

The lack of facilities is also among the factors deteriorating the quality of teacher education, teachers, and ultimately education. Public-sector university, Lahore was established with the purpose to offer quality programs in the field of teacher education and provide leadership to all the teacher education institutions to set new trends in the respective field. The establishment of this university was in pursuance of quality in teacher education and education aspired in the National Education Policy 1998-2010.Public-sector university designed B.Ed.(Elementary and Secondary) program in 2003, B.Ed.(General) in 2005, and B.Ed. Elementary and B.Ed. Secondary programs in 2007. B.Ed. Elementary and B.Ed. Secondary programs were revised in 2010. B.Ed. (Hons.) program was developed by HEC in collaboration with Pre-STEP project of USAID. For Public-sector university this program was adapted and launched in 2010. The Division of Education, Public-sector university made every effort to design these program in such a way that they could achieve excellence in preparing teachers of high quality and become an example for other teacher education institutions. The effectiveness of B.Ed. programs is needed to be evaluated to determine the status of these programs. A little research is conducted in this area. On account of importance of this area, the researcher selected to evaluate the perception of teacher educators and prospective teachers regarding pedagogies employed in UE campuses to deliver the curricula of B.Ed. programs.

Literature Review

Taylor (2014) defined teacher education programs "any of the formal programs that have been established for the preparation of teachers at the elementary- and

secondary-school levels". Preparation of teachers means to provide such knowledge; skills and attitudes to the candidates of teaching profession that enable them to accomplish teaching tasks effectively in the classroom, the school and the community. In regard to make the term "Teacher education" understandable, Aggarwal (2004, p. 414) cites Good (1973), who defines it as "all formal and informal activities and experiences that help to qualify a person to assume the responsibility as a member of the educational profession or to discharge his responsibility most effectively". Brickman (2008) views teacher education as" it facilitates individuals to develop as qualified teachers". Aggarwal (2008) sees teacher education as that knowledge, skill and ability, which are relevant to the teachers for discharge of his professional duties. He further describes that it should look for restructuring the attitudes and refashioning the habits of prospective teachers to reconstitute the whole personality of the teacher. Loughran (2006) considers teacher education synonymous with pre-service teacher preparation. According to Bullough and Gitlin (2001) in teacher education programs, prospective teachers strive for developing knowledge and skills required for teaching and learn the ways of applying this knowledge and skills in their practice.

The effectiveness of teacher education is being questioned and its critiques contend that teacher education is a feeble intervention in preparation of teachers and hardly brings a change in their ideas and behaviors developed during their studentship at schools Contenders of teachers' professionalization think that the notion of an effective teacher education program contains contradiction in itself (Ballou and Podgursky, 1999). Regarding the cumbersome curricular and procedural requirements for traditional certification of teachers, Rod Paige, The US Secretary of Education, took position that "burdensome requirements for education coursework that make up the bulk of current teacher certification regimes should be removed from teacher certification standards" (U.S. Department of Education, 2002, p. 8). He further maintained that "certification should emphasize tests of verbal ability and content knowledge while making most education coursework and student teaching optional"

In spite of strong criticism on teacher education, there is ample evidence that teacher education has impact on effectiveness of teachers. Research displays that teacher preparation has a positive impact on teachers' competence (Borko&t Putnam 1995). On the basis of an empirical study Darling-Hammond (1999) analyzed link between teacher qualification and student achievement. She found that teachers' knowledge and teaching skills have been positively related with students' achievement. Wilson, Floden & Ferrini-Mundy (2003) reviewed 57 empirical research studies found the evidence of a positive relationship between preparation of teachers in subject matter and the performance of their students. It also demonstrates that teacher education has affirmative effect on teacher practice and student outcome instructional preparation.Other studies (Wenglinsky, 2002; Gustafsson, 2003; Wayne & Youngs, 2003; Clotfelte, Ladd, &Vigdor, 2008; and Körkkö, Kyrö-Ämmälä, & Turunen, 2016) have also reached this conclusion.

The 21st century world is characterized with globalization, diversity, complexity, and media-saturated (Kneller, 2002).Marvelous Technological

advancements have brought revolutionary changes in all spheres of life. Electronic media and internet made knowledge accessible to all persons. Knowledge is changing rapidly due to scientific inquiries due to which world is changing. In this changing world old knowledge, skills, and jobs become irrelevant. The 21st century world demands such people, who are capable of learning, developing and adjusting unceasingly and insistently in accordance with needs of the hour. Schleicher (2012) kept this situation in his view to comment as:

"……..Today, where individuals can access content on Google, where routine cognitive skills are being digitized or outsourced, and where jobs are changing rapidly, education systems need to place much greater emphasis on enabling individuals to become lifelong learners, to manage complex ways of thinking and complex ways of working that computers cannot take over easily. Students need to be capable not only of constantly adapting but also of constantly learning and growing, of positioning themselves and repositioning themselves in a fast-changing world." (p. 11)

It is worth mentioning that students need to learn skills that are termed as survival skills by Wagner (2008) to successfully face the challenges of 21st century. These skills are "critical thinking and problem solving, collaboration across networks and leading by influence, agility and adaptability, initiative and entrepreneurialism, effective oral and written communication, accessing and analyzing information, and curiosity and imagination". These skills prepare students for college and adult life.

Traditional teaching is rooted in behaviourism and objectivism. It is characterized with teacher centeredness. Delivery of content is mostly through lectures and demonstrations. One-way communication is dominated. Students are passive receivers of information delivered by the teacher.Traditional models of teacher education remained unsuccessful to produce teachers, who can respond the changing needs of students and the time and reflect upon their own practices. It also failed to enable teachers to develop survival skills in their students(Schleicher, 2012). This failure of teacher education leads to a shift from behaviouristic/objectivistic paradigm to a constructivist paradigm. According to Schunk (2000), constructivism has philosophical as well as psychological underpinning and is founded on social cognitivism that assumes that there is a reciprocal interaction among persons, behaviors and environments. Constructivism is a policy that emphasizes the importance of contexts in learning and asserts that learners construct their own knowledge by interpreting their experiences in situation (Schunk, 2000). Jonassen, Peck, & Wilson (1999) opine that constructivists believe that students give their own meaning to their experiences. Through active engagement in the classroom they construct their own meaning that leads to the construction of their own knowledge. Jonassen (2000) states that interaction between student and the classroom environment results in creation of students' interpretation of the world in which they live instead of just receiving information passively transmitted by the teacher.In a constructivist classroom the teacher presents the topic or case with a clear emphasis on certain concept.

Constructive perspective of learning is considered be an active learning process. It is a social activity and contextual. In this perspective knowledge is constructed by the learner from his/her own experiences. Constructivists claim that "development of meaning is more important than acquiring a large set of concepts or skills. They also have confidence in essentiality of motivation for learning"(Cholewinski, 2009; Darling-Hammond, 2017; Gorain& Pradhan, 2020). Akhras and Self (2000) recognizes four aspects of constructivist learning theories (i.e. Context, activity, cognitive structures, and time extension)that coexist holistically.

A number of studies (de Sá Ibraim&Justi, 2016; Lee 2007; Raelin& Coghlan, 2006; Howard & Scott, 2017Sarason & Banbury, 2004; Sutherland &Bonwell, 1996; Ueltschy, 2001; Umble&Umble, 2004) provide evidence to infer that active learning strategies are effective.

Material and Methods

Subjects

The whole population was selected as subject for this study. The population of this study was comprised of all the teacher educators, who were teaching and prospective teachers enrolled in any of the B.Ed. Elementary, B.Ed. Secondary, and B.Ed. Honors programs.

Instruments of Data Collection

A questionnaire/opinionnaire was developed to get opinion of teacher educators and prospective teachers regarding instructional practices of B.Ed.programs being run at UE campuses.

Data Collection

Questionnaires were distributed among the subjects (teacher educators and prospective teachers) in the University campuses situated in Lahore city and collected duly filled questionnaires by the researcher himself, whereas questionnaires were posted to the subjects relating to the UE campuses situated out of Lahore city and collected by post.

Data Analysis

Mann-Whitney U test was used to compare the opinion of teacher educators and prospective teachers, whereas median was calculated to find out level of subjects' response. The instructional practices included sharing of learning experiences and resources, and resources, lesson presentations, interaction between TEs and PTs,, quality of TEs' questioning, development of critical thinking, group work, and differential teaching.

Table 1

Values of Mann-Whitney U test, and medians on perception of teacher educators and prospective teachers regarding sharing of learning experiences

Practices	Respondents	N	Mean Rank	Median	U	Z	Asymp. Sig. (2-Tailed)	Effect Size
Students share their learning experiences in the class	TEs	99	635.67	2.00	55770.000	-.339	.735	-0.010
	PTs	1149	623.54	2.00				
Students share their learning resources in the class	TEs	96	662.56	2.00	51450.000	-1.165	.244	-0.033
	PTs	1150	620.24	2.00				
Opportunities are created for students to exchange their thought/views with each other	TEs	99	530.90	2.00	47609.500	-2.886	.004	-0.082
	PTs	1154	635.24	2.00				
Teachers share their experiences with students	TEs	99	678.60	2.00	51718.000	-1.642	.101	-0.047
	PTs	1151	620.93	1.00				
Students share their academic problems with teachers	TEs	99	507.07	2.00	45249.500	-3.576	.000	-0.101
	PTs	1156	638.36	2.00				

Table 1 shows that:

1. TEs (Md=2, n=99) and PTs (Md=2, n=1149) both were of the opinion that PTs often shared their learning experiences in the classroom. A Mann-Whitney U Test revealed no significant difference in opinion of TEs and PTs (U=55770.0, z=-.339, p=0.735>0.05, r=-0.010).

2. TEs (Md=2, n=99) and PTs (Md=2, n=1150) both were of the opinion that PTs often shared their learning resources in the class. A Mann-Whitney U Test revealed no significant difference in opinion of TEs and PTs (U=51450.0, z=-1.165, p=0.244>0.05, r=-0.033).

3. TEs (Md=2, n=99) and PTs (Md=2, n=1154) both were of the opinion that opportunities were often created for PTs to exchange their thought/ views with others. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=47609.5, z=-28386, p=0.004<0.05) with small effect size (r=-0.011).

4. TEs (Md=2, n=99) were of the opinion that they often shared their experiences with PTs, whereas, the perception of PTs (Md=1, n=1151) was that TEs always shared their experiences with them. A Mann-Whitney U Test revealed no significant difference in opinion of TEs and PTs (U=51718.0, z=-1.642, p=0.101>0.05, r=-0.130).

5. TEs (Md=2, n=99) and PTs (Md=2, n=1156) both were of the opinion that PTs often shared their academic problems with TEs. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=45249.5, z=-3.576, p=0.000<0.05) with a small effect size (r=-0.011).

Table 2

Values of Mann-Whitney U test, and medians on perception of teacher educators and prospective teachers regarding lesson presentation

Practices	Respondents	N	Mean Rank	Median	U	Z	Asymp. Sig. (2-Tailed)	Effect Size
Teachers share learning objectives with students at start of every class	TEs	99	538.54	1.00	48365.500	-2.686	.007	-0.076
	PTs	1151	632.98	2.00				
Lesson contents are in line with learning objectives	TEs	99	535.06	2.00	48021.000	-2.811	.005	-0.080
	PTs	1155	635.42	2.00				
Teachers cite local examples to explain concepts	TEs	99	528.62	1.00	47383.500	-2.969	.003	-0.084
	PTs	1151	633.83	2.00				
Teachers help students understand interrelationship among concepts being taught	TEs	99	513.21	1.00	45857.500	-3.478	.001	-0.098
	PTs	1156	637.83	2.00				
Content is presented in order	TEs	99	578.23	2.00	52294.500	-1.538	.124	-0.043
	PTs	1157	632.80	2.00				
Continuity in presentation of concepts is established	TEs	98	487.21	2.00	42896.000	-4.169	.000	-0.118
	PTs	1155	638.86	2.00				

Table 2 shows that:

1. TEs (Md=1, n=99) responded that they always shared learning objectives with PTs at start of every class, whereas, the PTs (Md=2, n=1151) opined that TEs often shared learning objectives with them in at start of every class. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=48365.5, z=-2.686, p=0.007<0.05) with a small effect size (r=-0.076).

2. TEs (Md=2, n=99) and PTs (Md=2, n=1155) both were of the opinion that lesson contents were often in line with learning objectives. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=48021.0, z=-2.811, p=0.005>0.05, r=-0.080).

3. TEs (Md=1, n=99) were of the opinion that they always cited local examples to explain concepts, whereas, PTs (Md=2, n=1151) responded that TEs often cited local examples to explain concepts. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=47383.5, z=-2.969, p=0.003<0.05) with a small effect size (r=-0.084).

4. TEs (Md=1, n=99) were of the opinion that they always helped PTs understand interrelationship among concepts taught, whereas according to PTs (Md=2, n=1156) TEs often helped them understand interrelationship among concepts taught. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=45857.5, z=-3.478, p=0.001<0.05) with a small effect size (r=-0.098).

5. TEs (Md=2, n=99) and PTs (Md=2, n=1157) both were of the opinion that content was often presented in order. A Mann-Whitney U Test revealed no significant difference in opinion of TEs and PTs (U=52294.5, z=-1.538, p=0.124>0.05, r=-0.043).

6. TEs (Md=2, n=99) and PTs (Md=2, n=1155) both were of the opinion that continuity in presentation of concepts was often established. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=42896.0, z=-4.169, p=0.000<0.05, r=-0.118).

Table 3
Values of Mann-Whitney U test, and medians on perception of teacher educators and prospective teachers regarding teacher educators' communication skills

Practices	Respondents	N	Mean Rank	Median	U	Z	Asymp. Sig. (2-Tailed)	Effect Size
Students understand teachers' talk	TEs	97	528.55	1.00	46516.500	-2.939	.003	-0.083
	PTs	1155	634.73	2.00				
Teachers talk with students in a friendly manner	TEs	97	504.39	1.00	44172.500	-3.614	.000	-0.102
	PTs	1148	633.02	2.00				
Teachers care for students' feeling during their talk	TEs	99	421.21	1.00	36750.000	-6.179	.000	-0.175
	PTs	1154	644.65	2.00				
Teachers keep eye contact with students during their talk	TEs	99	514.15	1.00	45951.000	-3.558	.000	-0.101
	PTs	1155	637.22	1.00				
Teachers force students to accept their point of view	TEs	99	813.62	4.00	38548.500	-5.543	.000	-0.157
	PTs	1153	610.43	4.00				
Teachers listen to student point of view patiently	TEs	99	488.30	1.00	43391.500	-4.156	.000	-0.117
	PTs	1153	638.37	2.00				

Table 3 shows that:

1. TEs (Md=1, n=97) were of the opinion that PTs always understood their talk, whereas PTs (Md=2, n=1155) responded that they often understood TEs' talk. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=46516.5, z=-2.939, p=0.003<0.05) with a small effect size (r=-0.83).

2. TEs (Md=1, n=97) stated that they always talked with PTs in a friendly manner, whereas, PTs (Md=2, n=1148) opined that TEs often talked with them in a friendly way. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=44172.5, z=-3.614, p=0.000<0.05) with a small effect size (r=-0.102).

3. TEs (Md=1, n=99) responded that they always cared for PTs' feelings during their talk, whereas PTs (Md=2, n=1154) stated that TEs often cared their feelings during talk. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=36750.5, z=-6.179, p=0.000<0.05) with a small effect size (r=-0.175).

4. TEs (Md=1, n=99) and PTs (Md=1, n=1155) both opined that TEs always kept eye contact with PTs during talk. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=45951.0, z=-3.558, p=0.000<0.05) with a small effect size (r=-0.101).

5. TEs (Md=4, n=99) and PTs (Md=4, n=1153) both opined that TEs seldom forced PTs to accept their point of view. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=38548.5, z=-5.543, p=0.000<0.05) with a small effect size (r=-0.157).

6. TEs (Md=1, n=99) responded that they always listened PTs point of view patiently, whereas PTs (Md=2, n=1142) stated that TEs often listened to them patiently. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=43391.5, z=-4.156, p=0.000<0.05) with a small effect size (r=-0.117).

Table 4
Values of Mann-Whitney U test, and medians on perception of teacher educators and prospective teachers regarding quality of teacher educators' questioning

Practices	Respondents	N	Mean Rank	Median	U	Z	Asymp. Sig. (2-Tailed)	Effect Size
Teachers ask questions during their presentation	TEs	99	554.23	1.00	49918.500	-2.233	.026	-0.063
	PTs	1152	632.17	2.00				
Teachers ask questions purposefully	TEs	99	561.89	1.00	50677.000	-1.991	.047	-0.056
	PTs	1151	630.97	1.00				
Teachers 'questions have clarity	TEs	99	519.84	1.00	46514.000	-3.253	.001	-0.092
	PTs	1148	632.98	2.00				
Teachers' questions are brief	TEs	99	544.69	1.00	48974.000	-2.475	.013	-0.070
	PTs	1152	632.99	2.00				
Teacher questions make students think a lot on the subject/ Teacher questions are thought provoking	TEs	99	528.01	2.00	47323.000	-2.930	.003	-0.083
	PTs	1150	633.35	2.00				

Table 4 shows that:

1. TEs (Md=1, n=99) were of the opinion that they always asked questioned during their presentation, whereas, PTs (Md=2, n=1152) said that TEs often asked questioned during their presentation. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=49918.5, z=-2.233, p=0.026<0.05) with a small effect size (r=-0.063).

2. TEs (Md=1, n=99) and PTs (Md=1, n=1151) both were of the opinion that TEs always ask questions purposefully. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=50677.0, z=-1.991, p=0.047<0.05) with a small effect size (r=-0.011).

3. TEs (Md=1, n=99) responded that their questions had always clarity, whereas PTs (Md=2, n=1148) were of the opinion that their TEs' questions had often clarity. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=46514.0, z=-3.23, p=0.001<0.05) with a small effect size (r=-0.092).

4. TEs (Md=1, n=99) were of the opinion that their questions were always briefed, whereas PTs (Md=2, n=1152) response was that TEs' questions were often brief. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=48974.0, z=-2.475, p=0.013<0.05) with a small effect size (r=-0.070).

5. TEs (Md=2, n=99) and PTs (Md=2, n=1150) both were of the opinion that TEs' question were often thought provoking. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=47323.0, z=-2.930, p=0.003>0.05, r=-0.083).

Table 5
Values of Mann-Whitney U test, and medians on perception of teacher educators and prospective teachers regarding development of critical skills

Practices	*Respondents*	*N*	*Mean Rank*	*Median*	*U*	*Z*	*Asymp. Sig. (2-Tailed)*	*Effect Size*
Teachers guide students to analyze questions	TEs	99	515.80	2.00	46114.500	-3.276	.001	-0.093
	PTs	1148	633.33	2.00				
Teachers encourage students' rational thinking	TEs	99	475.34	2.00	42109.000	-4.471	.000	-0.126
	PTs	1150	637.88	2.00				
Students are encouraged to value concepts/things	TEs	99	465.99	2.00	41183.000	-4.788	.000	-0.135
	PTs	11	639.75	2.0				

rationally	s	52		0				
Students are encouraged to reflect on their tasks	TEs	99	497.68	2.00	44320.500	-3.828	.000	-0.108
	PTs	1151	636.49	2.00				

Table 4.5 shows that:

1. TEs (Md=2, n=99) and PTs (Md=2, n=1148) both were of the opinion that TEs often guide PTs to analyse questions. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (*U*=46114.5, *z*=-3.276, *p*=0.001<0.05) with a small effect size (r=-0.093).
2. TEs (Md=2, n=99) and PTs (Md=2, n=1150) both were of the opinion that TEs often encourage PTs' rational thinking. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (*U*=42109.0, *z*=-4.471, *p*=0.000<0.05) with a small effect size (r=-0.126).

3. TEs (Md=2, n=99) and PTs (Md=2, n=1152) both were of the opinion that PTs were often encouraged to value concepts/ things rationally. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (*U*=41183.0, *z*=-4.788, *p*=0.000<0.05) with a small effect size (r=-0.135).

4. TEs (Md=2, n=99) and PTs (Md=2, n=1151) both were of the opinion that PTs were often encouraged to reflect on their tasks. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (*U*=44320.5, *z*=-3.828, *p*=0.000<0.05) with a small effect size (r=-0.108).

Table 4.6: Values of Mann-Whitney U test, and medians on perception of teacher educators and prospective teachers regarding Group work in classrooms

Practices	Respondents	N	Mean Rank	Median	U	Z	Asymp. Sig. (2-Tailed)	Effect Size
Group activities are carried out in the classroom	TEs	99	544.60	2.00	48965.000	-2.453	.014	-0.070
	PTs	1154	634.07	2.00				
Students work in small groups	TEs	99	581.48	2.00	52617.000	-1.381	.167	-0.039
	PTs	1156	631.98	2.00				
Teachers keep all students engaged in group work	TEs	99	539.15	2.00	48425.500	-2.629	.009	-0.074
	PTs	1156	635.61	2.00				
All members of a group are assigned certain responsibility	TEs	99	483.67	2.00	42933.500	-4.271	.000	-0.121
	PTs	1155	639.83	2.00				

Every student is assessed in accordance with his/her contribution in the accomplished task/activity	TEs	99	479.56	2.00	42526.000	-4.326	.000	-0.122
	PTs	1147	635.92	2.00				
Teachers assign individual tasks	TEs	99	546.00	2.00	49104.000	-2.430	.015	-0.069
	PTs	1155	634.49	2.00				

Table 6 shows that:

1. TEs (Md=2, n=99) and PTs (Md=2, n=1154) both were of the opinion that group activities were often carried out in the classroom. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (*U*=48965.0, *z*=-2.453, *p*=0.014<0.05) with a small effect size (r=-0.070).

2. TEs (Md=2, n=99) and PTs (Md=2, n=1156) both were of the opinion that PTs often worked in small groups. A Mann-Whitney U Test revealed no significant difference in opinion of TEs and PTs (*U*=44320.5, *z*=-3.828, *p*=0.167>0.05, r=-0.039).

3. TEs (Md=2, n=99) and PTs (Md=2, n=1156) both were of the opinion that TEs often kept PTs engaged in group work. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (*U*=48425.5, *z*=-2.629, *p*=0.009<0.05) with a small effect size (r=-0.078).

4. TEs (Md=2, n=99) and PTs (Md=2, n=1155) both were of the opinion that all members of a group (PTs) were often assigned certain responsibility. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (*U*=42933.5, *z*=-4.271, *p*=0.000<0.05) with a small effect size (r=-0.121).

5. TEs (Md=2, n=99) and PTs (Md=2, n=1147) both were of the opinion that every f PT was often assessed in accordance with his/ her contribution in the accomplished task/ activity. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (*U*=42526.0, *z*=-4.326, *p*=0.000<0.05) with a small effect size (r=-0.122).

6. TEs (Md=2, n=99) and PTs (Md=2, n=1155) both responded that TEs often assigned individual tasks. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (*U*=49104.0, *z*=-2.430, *p*=0.015<0.05) with a small effect size (r=-0.069).

Table 7

Values of Mann-Whitney U test, and medians on perception of teacher educators and prospective teachers regarding differential teaching

Practices	Respondents	N	Mean Rank	Median	U	Z	Asymp. Sig. (2-Tailed)	Effect Size

Teachers use instructional strategies keeping in view students' individual variations	TEs	99	449.09	2.00	39510.000	-5.250	.000	-0.148
	PTs	1150	640.14	2.00				
Teachers assign tasks/ projects keeping in view their abilities	TEs	99	445.40	2.00	39145.000	-5.369	.000	-0.152
	PTs	1154	642.58	2.00				
Different methods of teaching are used to teach different content areas	TEs	99	528.59	2.00	47380.000	-2.936	.003	-0.083
	PTs	1154	635.44	2.00				

Table 7 shows that:

1. TEs (Md=2, n=99) and PTs (Md=2, n=1150) both responded that TEs often used instructional strategies keeping in view PTs' individual variations. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=39510.0, z=-5.250, p=0.000<0.05) with a small effect size (r=-0.148).
2. TEs (Md=2, n=99) and PTs (Md=2, n=1154) both responded that TEs often assigned tasks/ projects keeping in view PTs' abilities. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=39145.0, z=-5.369, p=0.000<0.05) with a small effect size (r=-0.152).

3. TEs (Md=2, n=99) and PTs (Md=2, n=1154) both responded that TEs often used different methods for teaching different content areas/ subjects. A Mann-Whitney U Test revealed a significant difference in opinion of TEs and PTs (U=47380.0, z=-2.936, p=0.003<0.05) with a small effect size (r=-0.083).

Conclusion

1. Teacher Educators and Prospective Teachers, both, perceived that sharing learning happened in the class rooms. There was no significant difference between their opinions except sharing of academic problems with Teacher Educators by Prospective Teachers, where significant difference existed with a small effect size.

2. Lesson presentation was viewed effective by Teacher Educators and Prospective Teachers but existed significant existed difference between their opinions with small effect size.

3. Both Teacher Educators and Prospective Teachers opined that Teacher Educators' communication skills were effective but significant difference existed between their opinions with small effect size.

4. Both Teacher Educators and Prospective Teachers opined that quality of Teacher Educators' questioning was effective but significant difference existed between their opinions with small effect size.

5. Both Teacher Educators and Prospective Teachers opined that Teacher Educators made efforts to develop critical thinking in Prospective Teachers but significant difference existed between their opinions with small effect size.

6. Both Teacher Educators and Prospective Teachers opined that Teacher Educators encourage group work in the class but significant difference existed between their opinions with small effect size.

7. Both Teacher Educators and Prospective Teachers opined that Teacher Educators employed methods of teaching keeping view Prospective Teachers' abilities and nature of content area. No significant difference existed between their perceptions.

References

Aggarwal, J. C. (2008). *Teacher and education in a developing society*. UP: Vikas Publishing House Pvt Ltd

Aggarwal, J. C. (2004*). Teacher and Education in a developing society* (4 E). New Delhi: Vikas Publishing House (Pvt) Limited.

Attard, E. Di loio, K. Geven, R. Santa, (2010). *Student centered learning: An insight into theory and practice Education International.* Bucharest: European Students' Union

Ballou, D., &Podgursky, M. (1999). Teacher Training and Licensure: A Layman's Guide. In M. Kanstoroom and C. E. Finn (eds.), *Better Teachers, Better Schools. Washington, D. C.: Fordham Foundation.*

Borko, H., & Putnam, R. (1995), Expanding a teacher's knowledge base: A cognitive psychological perspective on professional development, in T. Guskey, & M. Huberman, *Professional development in education: New paradigms and practice* (pp. 35-65), New York: Teachers College Press.

Brickman, W. W. (2008). *Teacher Training*. Encyclopaedia of Encarta. Redmond, WA. Microsoft Corporation.

Bullough, R. V. & Gitlin, A. (2001). *Becoming a Student Teaching: Linking Knowledge Production and Practice (Thinking and Teaching)*, Atlanta: Atlanta Book Company.

Clotfelte, C. T., Ladd, H. F., &Vigdor, J. L. (2008). *Teacher Credentials and Student Achievement in High School: A Cross-Subject Analysis with Student Fixed Effects*, NBER Working Paper n° 13617.

Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education*, *40*(3), 291-309.

Darling-Hammond, L. (1999), *Teacher Quality and Student Achievement: A Review of State Policy Evidence*, Washington: Center for the Study of Teaching and Policy - University of Washington.

Darling-Hammond, L. (1999). T*eacher Quality and Student Achievement: A Review of State Policy Evidence*, Washington: Center for the Study of Teaching and Policy - University of Washington.

de Sá Ibraim, S., & Justi, R. (2016). Teachers' knowledge in argumentation: contributions from an explicit teaching in an initial teacher education program. *International Journal of Science Education*, *38*(12), 1996-2025.

Gustafsson, J.-E. (2003), What Do We Know About Effects of School Resources on Educational Results?, *Swedish Economic Policy Review*, 77-110.

Gorain, R., & Pradhan, S. D. (2020). Status of Pre-Service Secondary Teacher Education Program in Government Institution under Self Finance Scheme in Odisha. *Purakala with ISSN 0971-2143 is an UGC CARE Journal*, *31*(44), 201-212.

Howard, J., & Scott, A. (2017). Any time, any place, flexible pace: Technology-enhanced language learning in a teacher education program. *Australian Journal of Teacher Education* Volume 42 No 06, 51-68.

Jonassen, D. H. (2000). Computers as Mindtools for schools: Engaging critical thinking. Upper Saddle River, NJ: Prentice Hall.

Jonassen, D. H., Peck, K. L., & Wilson, B. G. (1999). *Learning with technology: A constructivist perspective*. Upper Saddle River, NJ: Prentice Hall.

Körkkö, M., Kyrö-Ämmälä, O., & Turunen, T. (2016). Professional development through reflection in teacher education. *Teaching and Teacher Education*, *55*, 198-206.

Lee, K. H. (2007). Chocolate Chip Cookies as a Teaching Aid, The American Statistician, 61, 351-355.

Loughran, J. (2006). *Developing a pedagogy of teacher education: Understanding teaching and learning about teaching*. London: Routledge.

Maclellan, E. and Soden, R. (2004) 'The Importance of Epistemic Cognition in Student-Centred Learning'. In: *Instructional Science*, 32:3, pp. 253-268

Raelin, J., & Coghlan, D. (2006). Developing Managers as Learners and Researchers: Using Action Learning and Action Research. *Journal of Management Education*, 30(5), 670-689.

Sarason, Y., & Banbury, C. (2004). Active Learning Facilitated by Using a Game-Show Format Or Who Doesn't Want to be a Millionaire*? Journal of Management Education,* 28(4), 509-518.

Schleicher, A. (2012). *Preparing Teachers and Developing School Leaders for the 21st Century: Lessons from around the World*, OECD Publishing. http://dx.doi.org/10.1787/9789264xxxxxx-en

Schunk, D. H. (2000). *Learning theories: an educational perspective*. New Jersey: Prentice-Hall.

Sutherland, T. E., &Bonwell, C. C. (1996). *Using Active Learning in College Classes: A Range of Options for Faculty* (Vol. 67).

Taber, K. S. (2011). Constructivism as Educational Theory: Contingency in Learning, and Optimally Guided Instruction. In J. Hassaskhah, *Educational Theory* (pp. 39-61). New York: Nova Science Publishers, Inc.

Taylor, W. (2014). Teacher Education. *Encyclopedia Britannica*.

U. S. Department of Education (2002). *The Secretary's Report on Teacher Quality*, Washington, D. C.:Department of Education.

Ueltschy, L. C. (2001). An Exploratory Study of Integrating Interactive Technology into the Marketing Curriculum. *Journal of Marketing Education*, 23(1), 63-72.

Umble, M., &Umble, E. J. (2004). Using Active Learning to Transform the Monte Hall Problem into an Invaluable Classroom Exercise. Decision Sciences *Journal of Innovative Education*, 2(2), 213-217.

Wagner, T. (2008). *The Global Achievement Gap: Why Even Our Best Schools Don't Teach the New Survival Skills Our Children Need–And What We Can Do About It*. New York: Basic Books.

Wayne, A. J., & Youngs, P. (2003), Teacher Characteristics and Student Achievement Gains: A Review. *Review of Educational Research* , 73-89.

Wenglinsky, H. (2002). *How schools matter: The link between teacher classroom practices and student academic performance*. Education Policy Analysis Archives.

Wilson, S., Floden, R. and Ferrini-Mundy, J. (2002). *Teacher preparation research: Current knowledge, gaps and recommendations*. Center for the Study of Washington.