



Teachers' Professional Skills and their Corresponding School Climates: A Comparative Analysis of Professionally Qualified and Non-Qualified Teachers

Hamid Ali Nadeem*, Zafar Iqbal**

* Lecturer, Allama Iqbal Open University Islamabad, Pakistan. hamid.ali@aiou.edu.pk

** Assistant Professor, Allama Iqbal Open University Islamabad, Pakistan. zafar.iqbal@aiou.edu.pk

ARTICLE INFO

Article history:

Submitted 14.07.2023

Accepted 12.11.2023

Published 31.12.2023

Volume No. 10

Issue No. II

ISSN (Online) 2414-8512

ISSN (Print) 2311-293X

DOI:

Keywords: Professional Education, School Climate, Teachers' Skill, Academic Climate, Institutional Environment, Community Relations

ABSTRACT

This research study gives a comparative analysis of professionally qualified and non-qualified teachers (PNQTs) regarding their professional skills and their relevant school climates. The quantitative, causal-comparative design was suitable to determine professional qualification as a cause of varying school climates. The data was collected from 112 teachers (56 PQT and 56 PNQT) and their 224 students from public schools of Punjab province. One observation sheet to measure teachers' professional skills and one questionnaire on the Likert scale were developed to measure school climates. The observation sheet was derived from National Professional Standards for Teachers (NPSTs) in Pakistan and school climate was based on four domains given by Wang and Degol (2016). These instruments were validated by calculating CVI and reliability was ensured to greater than 0.7 Cronbach Alpha. Descriptive (Mean, SD) and inferential statistics (t-test and correlation) were employed for data analysis. The results revealed PQTs exhibit better skills under seven delimited standards of NPSTs including subject matter knowledge, human growth and development, Islamic and ethical practice, instructional planning, assessment, learning environment, and collaboration in schools than PNQTs. However, diversity has been found in the skills and school climates of PNQTs indicating a varying effect of professional qualification. There is enough empirical evidence that professional education may be a pre-requisite for teachers' appointments in Punjab School Education Department.



Introduction

The quality of teacher demands that teachers must have the necessary knowledge and skills related to the subject areas they teach (Margolis, 2008; Blank & Alas, 2010). The teachers acquire skills as part of their professional degree programs. Professional training is critical for teachers to perform their teaching at school. According to Margolis (2008), people need opportunities to expand their knowledge and skills, support their motivation, and collaborate with others in the field which collectively make their competencies. According to Ali (2011), a teacher's quality is also defined by his or her degree of professional competencies, which include knowledge, understanding, abilities, and attitudes carried to the teaching profession. Competency consists of one or more skills that must be mastered. Competencies cover three areas; knowledge, skills, and attitudes that can be used as indicators to assess performance. The competencies are controllable and verifiable because they have performance measures (Fauth, Decristan, Decker, Büttner, Hardy, Klieme&Kunter, 2019). The ability of a teacher can be measured as it is observed through their behavior. Some teaching skills require the same amount of information, skills, and perspectives, while others do not. Some competencies may be based on knowledge rather than skills and attitudes, while others

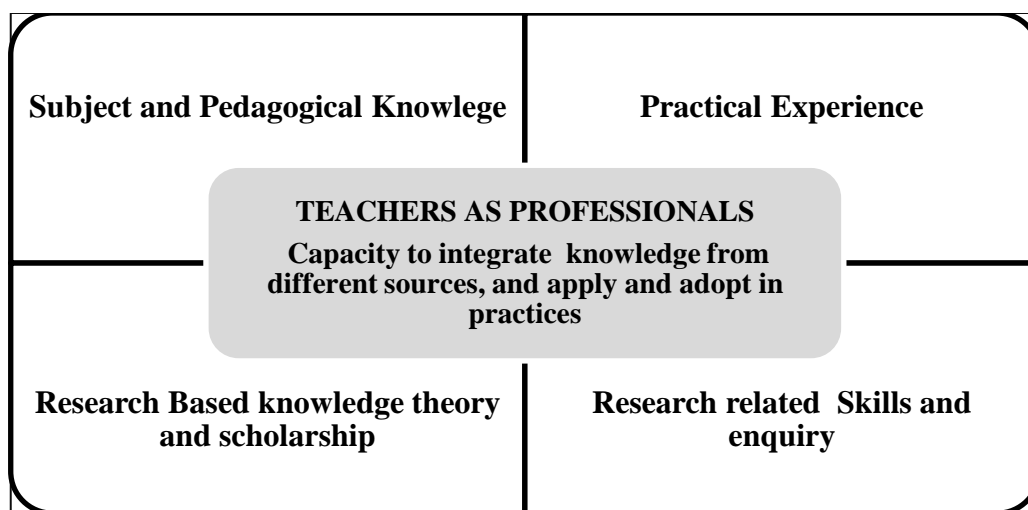
may be based on skills or performance (Najoua, Nip& Dina, 2020).

Teachers might benefit from professional development to improve their time management and organization skills (Maba, Perdata, Astawa& Mantra, 2018). Teachers go to their classrooms and adjust their teaching techniques and curriculum to better meet their students' needs after learning new teaching tactics through professional education. In addition to classroom preparation, the teachers spend a significant amount of time on student assessments, curriculum development, and other paperwork. Professionals must learn from their experiences, update their knowledge, skills, and understanding, and guarantee that their competencies are according to the prevailing needs of the students and the demands of schools. A teacher is considered professional if he or she is an expert in their subject and has the necessary abilities to instruct them as per their varying needs. Most significantly, he or she must acquire methodological abilities, since this is the quality that sets teachers apart from other professions (Annisa, Akrim & Manurung, 2020; Raza et al., 2023).

A teacher's professional skills are hard and soft skills that help teachers to keep their students continuously interested in their classes and sessions. These skills can help teachers position themselves as a teacher and gain the attention and respect of their students. Some teaching skills are natural for some, while others may need to be developed while learning during professional education programs. Developing the ability to teach is a vital part of becoming a good teacher which is possible only through professional education (Mukhamadovna, Sharipovna&Supkhonovna, 2020). These skills help teachers to provide space for students to participate in the discussion and make the session more interesting and develop students learning (Lukiianchuk, Kharahirlo, Sakhno, Tataurova-Osyka &Stadnik, 2021; Zaman et al., 2022).

Figure 1

Dimensions of teachers` professional skills (Menter,2016)



When teachers exercised their subject knowledge, pedagogical skills, and practical experiences, the school climate is directly influenced by their actions due to these professional skills. A good environment in the school is communicated through a positive learning climate that influences students' motivation and contribution, promotes classroom learning, encourages free speech, academic challenges, community support, and information sharing (Annisa, Akrim & Manurung (2020). Classroom atmosphere and interactive skills have a decisive influence on an individual's behavior (Afari, Aldridge, Barry, Fraser, & SweKhine, 2013; Ju-Sen and Chauyun, 2014; Raza et al., 2021; Zaman et al., 2022). Similarly, Brookhart (2011) has described several teachers professional skills including adaptability, communication, continuous learning, leadership quality, innovation, use of ICT, teamwork, imagination, pedagogical skills, and ability to manage (Murkatik, Harapan & Wardiah, 2020; Waheed et al., 2022). In Pakistan, professional skills for teachers have been described by the Ministry of Education in National Professional Standards for Teachers including subject matter knowledge, human growth, and development, Islamic and ethical practice, instructional planning, assessment, learning environment, and collaboration. Indicators of professional skills have been mentioned against each standard. In this study, these standards were used to measure the professional skills of teachers working in public schools in Punjab province. Each standard has three parts, knowledge and understanding (content), dispositions (attitude, behavior, and values), and performance (skills).

School Climate

The school climate comprises the totality of values, experiences, and behaviors of students, teachers, educators, and parents (Rapti, 2012), school spirit (Austin, O'Malley & Izu, 2011), and personality (Hoy & Miskel, 2010; Rapti, 2012). The school climate is related to the state or quality of the learning environment (Austin, O'Malley & Izu, 2011). School climate is a multi-dimensional structure that encompasses the physical, social, and instructional size (Prelow, Loukas & Jordan-Green, 2007). Physical size includes the school building, school size, educational facilities and resources, and safety & security (Daily, Mann, Kristjansson, Smith & Zullig, 2019). The social dimension includes the quality of personal relationships with all staff and the fair and equitable attitude of students towards teachers and other employees. The school climate considers the relationship among various stakeholders (students, teachers, school staff, parents, and community members). School climate is characterized by strong collaborative learning communities. There is a link between a good school climate and teachers' skills, teaching beliefs, cooperation between teachers, professional development, and the adoption of different teaching techniques (Grazia & Molinari, 2021; Raza et al., 2021). The major contribution to the development of a good school climate is directly depending upon the actions and behavior depicted by the teachers and people within that school. Wang and Degol (2016) presented four domains and 13 dimensions of school climate: (a) academic (i.e., teaching and learning, leadership, professional development); (b) community (i.e., quality of relationships, connectedness, respect for diversity, partnerships); (c) safety (i.e., social and emotional safety, physical safety, discipline, and order); and (d) institutional environment (i.e., environmental adequacy, structural organization, availability of resources). These four domains have been used in this research as a basis for the measurement of school climate. The reason behind this selection was that these domains are linked with the outcome of professional education courses and programs.

The academic climate is usually defined using three dimensions: leadership, teaching and learning, and professional development. Community refers to the quality of interactions between and among members of the school (Grazia & Molinari, 2021; Hamzah, Ibrahim & Ghavifekr, 2018; Raza et al., 2021; Ruiz, McMahon & Jason, 2018; Del Toro & Wang, 2021). Teaching quality, teacher expectations of student progress, monitoring of student progress, and rapid communication of outcomes to students and parents can be grouped in another aspect (Brooks, 1999). According to Rapti (2012), the school environment affects a person's feelings and desires for attachment. As a community liaison organization, the school requires principals, teachers, and students to participate administratively in planning, decision-making, and problem-solving. Relationships between members of the school community is characterized by respect, openness, and listening, so it is necessary to create a close and friendly professional environment within the school. Simple actions like greetings and smiles can improve school relationships and the climate (Bradshaw, Cohen, Espelage & Nation, 2021). Building better teacher-student relationships is essential. A positive relationship between students and teachers improves school performance & attendance and prevents students' dropout. Students build positive relationships with teachers who listen to them, support them, and treat them fairly. The quality of the teacher-student interaction was positively related to student achievement (Bassi, Meghir & Reynoso, 2020). School safety refers to the physical and emotional security provided by a school and formed by its members, along with the degree of order and discipline present (Devine and Cohen 2007; López, Benbenishty, Astor, Ascorra & González, 2020; Konishi, Hymel, Wong & Waterhouse, 2021; Wong, Dosanjh, Jackson, Rüniger & Dudovitz, 2021).

The concepts of school climate and school culture are sometimes used interchangeably (Harris, Wilson-Daily & Fuller, 2021). Researchers have identified a link between school and classroom climate and academic performance. A positive school environment promotes positive self-esteem in students, provides security, encourages collaboration, and promotes space and organization (Shannon & Bylsma, 2006). In addition to influencing a student's socioeconomic background, a positive school climate affected academic performance (Ramberger & Paladi, 2005). The teacher is a role model and professionally skilled and plays a significant role in developing various dimensions of the school climate. The professionally qualified teachers are equipped with the knowledge and skills required by future teachers that make a clear difference from that group of teachers who have not received professional qualifications. In the Punjab province of Pakistan, the school education department has started recruiting teachers without considering the professional education of teachers as mandatory at the time of induction. A lot of teachers try the hit and trial method to elaborate on concepts without having a theoretical background in educational psychology, philosophy of education, instructional planning, curriculum objectives, assessment, evaluation, etc. It may create a difference in their performance inside the classroom and within school their teaching skills and

behaviors as experienced by the students. This research was intended to investigate the difference in the professional skills and school climates of PQTs and PNQTs. The findings of this study may provide use empirical base to decide on the need for professional education for the recruitment of teachers in the Punjab School Education Department.

Objectives of the study

The study was conducted to achieve the following objectives:

1. To find the difference in the professional skills of professionally qualified and non-qualified teachers.
2. To measure the difference in school climates of professionally qualified and non-qualified teachers.
3. To determine the contribution of teachers' skills in the development of school climate

Research Questions

- 1.1 What is the level of professional skills of professionally qualified teachers?
- 1.2 What is the level of professional skills of professionally non-qualified teachers?
- 1.3 What are the differences in various aspects of professional skills between professionally qualified and non-qualified teachers?
- 2.1 What is the contribution of professional skills in developing school climates?
- 2.2 What is the difference in school climates of professionally qualified and non-qualified teachers?
- 3.1 What is the contribution of professionally qualified teachers' (PQTs) skills in the development of various domains of school climate?
- 3.2 What is the contribution of professionally non-qualified teachers' (PNQTs) skills in the development of various domains of school climate?

Methodology

The professional skills of teachers and their corresponding schools' climate were investigated through a causal-comparative research design in which no intervention was involved (Creswell, 2012). The nature of the problem leads to this design as it is retrospective; the independent variable is not manipulated by the researcher, the groups are already formed, and differences between the groups already existed based on this recruitment policy. In this case, the independent variable (professional skills) and dependent variable (school climate) have already existed. Professional skills have been derived from National Professional Standards for Teachers (NPSTs) in Pakistan and school climate has been taken in terms of four domains as referred by Wang and Degol (2016). The study was delimited to seven standards of NPSTs because those seven standards are linked with the courses of professional education and four domains of school climate.

Population and Sample

The population of the study consisted of the teachers recruited on a contract basis in Punjab School Education Department, Government of Punjab in 2016-17 and 2017-18. The sample was selected randomly in which four districts of Punjab i.e., Rawalpindi, Faisalabad, Sargodha, and Rahim Yar Khan were included. This manuscript is based on partial data of a huge research study in which there were multiple data sources and many elements in the sample. The component is taken for this research paper comprised professional skills (PS) and school climate (SC). Twenty-eight (28) teachers from each district and two corresponding students of each teacher were selected on a random basis. Cumulatively, received data from 112 teachers and their corresponding 224 students taught by them.

Instruments

The professional skills of teachers and their corresponding school climates were measured through self-developed two instruments. The observation sheet to measure the professional skills of PQTs and PNQTs was developed according to skills indicators as mentioned in the standards of NPSTs including subject matter knowledge, human growth, and development, Islamic and ethical practice, instructional planning, assessment, learning environment, collaboration, as approved by NACTE (2009), Government of Pakistan. It was a 4-point rating scale including always, often, sometimes, and never based on the number of occurrences of a particular performance indicator. The researcher rated the teachers by visiting the schools and their classrooms. The school climate was measured through the questionnaire on the Likert scale to examine its aspects including academic climate, safety, community relations, and institutional environment as given by Wang and Degol (2016). The teachers and their relevant students filled in this questionnaire to give an overall picture of the school climate.

Instruments Validation process

Both tools were validated through expert opinion having Ph. D in education for face validity followed by calculation of Content Validity Index (CVI). The range of rating items was 4-1 highly relevant to not relevant respectively (Polit & Beck, 2006; Yusoff, 2019). There were initially fifty-two items in this tool while thirty-two were approved by the experts while six items were modified as per their guidelines. Final

tools were ready for pilot testing comprised of thirty-eight items. To measure school climate the questionnaire initially comprised fifty-four items in which six (06) items having CVI less than 0.83 were deleted, and the remaining forty-eight items were retained in the questionnaire.

Reliability

The reliability of both instruments was calculated through pilot testing. Reliability coefficients of both instruments as a whole and construct-wise are given in table 1 and table 2.

Table 1

Reliability Co-efficient of Questionnaire Measuring Teachers' Skills

Sr No	Domain	Scope	Items	α
1	Subject Matter Knowledge	The teacher demonstrates his command in the subject area	3	0.75
2	Human Growth and Development	The teacher demonstrates command in Human Psychology	7	0.70
3	Knowledge Of Islamic Ethical Values	The teacher demonstrates ethical values	6	0.81
4	Instructional Planning and Strategies	The teacher demonstrates expertise in instructional planning	4	0.70
5	Assessment	The teacher demonstrates expertise in assessment	6	0.76
6	Learning Environment	The teacher demonstrates expertise in the improvement of the learning environment	8	0.74
7	Collaboration and Partnerships	The teacher demonstrates expertise in collaboration with the community	4	0.77

Scale Reliability (α value): 0.76, N=64

The overall reliability of the scale (38 items) was 0.76. This value indicates that there exists consistency in the items of the instrument and is reliable.

Table 2

Reliability of Questionnaire Measuring School Climate

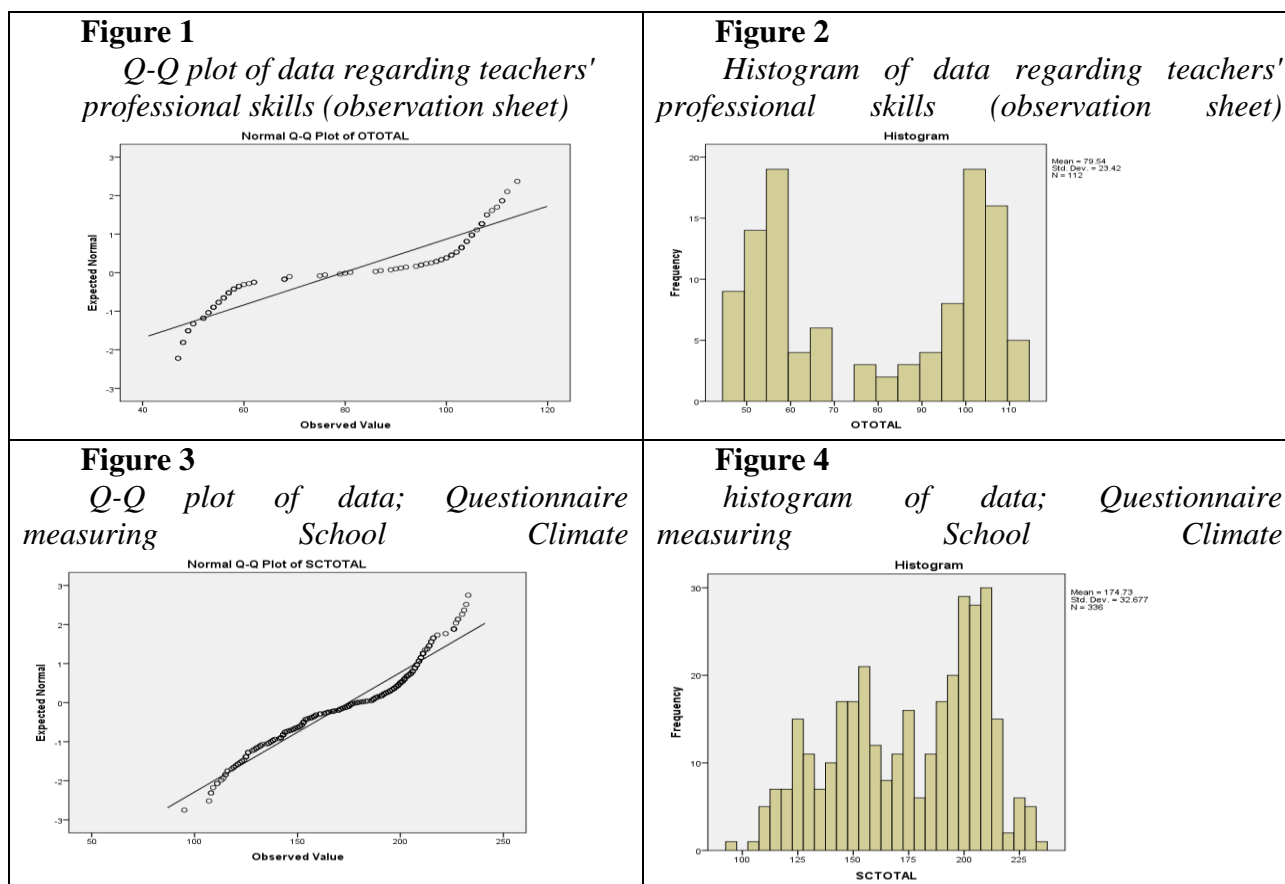
Sr No	Domain	Scope	Items	α
1	Academic climate	Items measuring teaching learning aspect contributing towards formation of academic climate	10	0.86
2	Community relations	Items measuring various aspects contributing toward school-community relations	18	0.78
3	Safety	Items measuring various aspects contributing to safety	12	0.77
4	Institutional environment	Items measuring various aspects contributing toward school-community relations	8	0.78

Scale Reliability (α value) = 0.79, N=139

For the questionnaire measuring school climate, the reliability coefficient was calculated construct-wise. With the reliability co-efficient of academic climate (0.86), community relations (0.78), safety (0.77), and institutional environment (0.78), the overall reliability coefficient of the tool was 0.79. As the Cronbach Alpha value is greater than 0.7, it is acceptable for its usage.

Results

Before the conduct of data analysis, as a pre-requisite of t-tests and correlation analysis, the normality of data was checked. Q-Q plot and histograms were prepared.



Figures 1, 2, 3, and 4 indicate the normal distribution of data. Both data sets fulfill the requirement of normality for the tests to be conducted at the next stage i.e., t-test and correlation analysis.

Table 3

Comparison of construct-wise professional skills between professionally qualified and non-qualified teachers

Variable	Status	N	Mean	SD	t	df	Sig
Subject matter knowledge	PQT	56	8.58	.93	15.27	110	0.00
	PNQT	56	5.05	1.45			
Human Growth and Development	PQT	56	19.30	1.27	25.32	110	0.00
	PNQT	56	10.84	2.15			
Islamic and Ethical Values	PQT	56	15.41	1.99	19.19	110	0.00
	PNQT	56	8.20	1.96			
Instructional planning and strategies	PQT	56	10.52	1.51	13.90	110	0.00
	PNQT	56	6.29	1.70			
Assessment	PQT	56	16.80	1.19	23.18	110	0.00
	PNQT	56	9.64	1.97			
Learning environment	PQT	56	21.39	2.12	18.42	110	0.00
	PNQT	56	13.07	2.58			
Collaboration and partnership	PQT	56	9.75	2.10	15.47	110	0.00
	PNQT	56	4.21	1.67			

Key: PQT= professionally qualified teachers; PNQT= professionally non-qualified teachers; N_{PQT}= 56,

Table 3 reveals the level of professional skills of professionally qualified and non-qualified teachers. Regarding means score of PQT across different skills ranges from 8.59 - 21.39 while for PNQT ranges from 4.21 - 13.09 it is evident from the difference in means score that PQTs were comparatively better as compared to PNQTs. Overall, the mean score of PQT is greater in subject matter knowledge, human growth and development, knowledge of Islamic values, and instructional planning. While PNQTs were found better in subject matter knowledge, human growth and development, and instructional planning while their means score is inclined towards the average level of performance and skills. If we look at the values of standard deviation, it was found that PNQTs have less deviation from the mean. It reveals that the majority of PNQTs are the same in their skills. There is not much variation in the skills of non-qualified teachers. It might be due to the absence of a source of variation i.e., professional education. However greater value of standard deviation reveals that the performance of PQTs was varying. PQTs and PNQTs have a great diversity in their performance in these areas. This diversity reveals that professional education plays a significant role in developing specific professional skills.

Similarly, table 3 reveals the difference between PQTs and PNQTs regarding various aspects of professional skills. There was a significant difference regarding subject matter knowledge in PQTs and PNQTs under the conditions; $t(110) = 15.27, p = 0.00$. These results suggest that PQTs were found better than PNQTs. Professional education enables a teacher to perform better regarding subject matter knowledge as a national professional standard for teachers in Pakistan. There was a significant difference between Human Growth and Development in PQTs and PNQTs conditions; $t(110) = 25.32, p = 0.00$. PQTs were found to be better than PNQTs. Specifically, our results suggest that professional education enables a teacher to perform better regarding Human Growth and Development as a national professional standard for teachers in Pakistan. There was a significant difference in PQTs and PNQTs regarding Islamic and Ethical Values under the conditions; $t(110) = 19.19, p = 0.00$. These results suggest that PQTs have been found to be better than PNQTs. Professional education enables a teacher to perform better regarding Islamic and Ethical Values as a national professional standard for teachers in Pakistan. There was a significant difference in PQTs and PNQTs regarding Instructional Planning, under conditions; $t(110) = 13.90, p = 0.00$. These results suggest that PQTs have been found to be better than PNQTs. Professional education enables a teacher to perform better regarding Instructional Planning as a national professional standard for teachers in Pakistan. There was a significant difference in PQTs and PNQTs regarding Assessment under the conditions; $t(110) = 23.18, p = 0.00$. These results suggest that PQTs have been found to be better than PNQTs. There was a significant difference in PQTs and PNQTs. PQTs and PNQTs, under the conditions; $t(110) = 18.42, p = 0.00$. These results suggest that PQTs have been found to be better than PNQTs. Professional education enables a teacher to perform better in Learning Environment as a national professional standard for teachers in Pakistan. There was a significant difference in PQTs ($M=91.66, SD=6.84$) and PNQTs ($M=67.43, SD=8.01$) conditions; $t(110) = 31.42, p = 0.00$ regarding collaboration. These results suggest that PQTs have been found to be better than PNQTs. Professional education enables a teacher to perform better regarding collaboration as a national professional standard for teachers in Pakistan.

It is evident that comparatively a higher mean score exists in professional skills of various aspects of PQTs than PNQTs overall but keeping in view the value of SD we see that $SD_{PQT} > SD_{PNQT}$. It indicates that there is more variation in PQTs. This diversity reveals that professional education is not playing a significant role in developing specific professional skills in teachers.

Table 4

Comparison of Professional skills of professionally qualified and non-qualified teachers

Variable	Status	N	Mean	SD	t	df	Sig
Teachers' skills	PQT	56	91.66	6.84	31.42	110	.000
	PNQT	56	67.43	8.01			

Key: PQT= Professionally qualified teachers; PNQT= Professionally non-qualified teachers.

Table 4 reveals that the mean score of PQTs (91.66) is greater than the mean score of PNQTs (67.43). It means professional skills exhibited by PQTs in school are comparatively better. An independent-samples t-test was conducted to compare the professional skills of teachers. There was a significant difference in PQTs (M=91.66, SD=6.84) and PNQTs (M=67.43, SD=8.01) conditions; $t(110) = 31.42, p = 0.00$. These results suggest that PQTs were found better than PNQTs. Professional education enables a teacher to perform better according to various performance indicators mentioned in the national professional standard for teachers in Pakistan. A higher mean score exists in the professional skills of PQTs than PNQTs overall but keeping in view the value of SD we see that $SD_{PNQT} > SD_{PQT}$. It indicates that there is more variation in professionally non-qualified teachers.

Table 5

Correlation between Teachers' skills and domains of school climate of professionally qualified teachers

		AC	CR	SF	IE	SC
Teachers' skills	Pearson Correlation	.750**	.803**	.799**	.754**	.750**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	56	56	56	56	56

** Correlation is significant at the 0.01 level (2-tailed).

Key: AC=Academic Climate; CR= Community Relations; SF= Safety; IE= Institutional Environment; TS= Teachers' skills; SC=School Climate

The test of correlation was applied between teachers' skills of PQTs and domains of school climate. There is a strong positive correlation between PQTs' professional skills and their school climates, and the relationship was significant at 0.01 levels. However when measured correlation between teachers' skills and different domains of school climate, we see a high positive correlation between teachers' skills and community relations $\{r(56) = .803\}$, teachers' skills and safety $\{r(56) = .799\}$, teachers' skills and institutional environment $\{r(56) = .754\}$ and teachers' skills and academic climate $\{r(56) = .750\}$ at significance level 0.01.

Table 6

Correlation between Teachers' skills and domains of school climate of professionally non-qualified teachers

		AC	CR	SF	IE	SC
Teachers' skills	Pearson Correlation	.590**	.607**	.562**	.566**	.590**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	56	56	56	56	56

** Correlation is significant at the 0.01 level (2-tailed).

Key: AC=Academic Climate; CR= Community Relations; SF= Safety; IE= Institutional Environment; TS= Teachers' skills; SC=School Climate

The test of correlation was applied between teachers' skills of PNQTs and school climate. There is a moderate positive correlation between PNQTs' professional skills and their school climates, and the relationship was significant at 0.01 levels. However when measured correlation between teachers' skills and different domains of school climate, we see a moderate positive correlation between teachers' skills and institutional environment $\{r(56) = .566\}$ teachers' skills and academic climate $\{r(56) = .590\}$, teachers' skills and safety $\{r(56) = .562\}$, teachers' skills and community relations $\{r(56) = .607\}$ at significance level 0.01.

Table 7*Comparison of School Climate of professionally qualified and non-qualified teachers*

Variable	Status	N	Mean	t	df	Sign
School climate	PQT	168	4.11	17.58	334	0.000
	PNQT	168	3.17			

Table 7 shows a significant difference in school climates. Concerning the mean score of 4.11 for school climate of PQTs has been found in a better situation regarding contributions towards the development of school climate as compared to the mean score 3.17 of PNQTs. An independent-samples t-test was conducted to compare school climates of professionally qualified and non-qualified teachers. There was a significant difference in school climates of PQTs and PNQTs under the conditions; $t(334) = 17.58, p = 0.00$. These results suggest that PQTs more significantly contribute toward school climate development than PNQTs. Evidence of a higher mean score in school climates of PQTs than PNQTs is there overall but keeping in view the value of SD it was found that $SD_{PNQT} (.517) > SD_{PQT} (.409)$. It indicated that there is more variation in PNQTs.

Conclusion and Discussion

It can be concluded from the difference in means scores (PQT ranges from 8.59 - 21.39 while for PNQT its range is (4.21 – 13.09) that PQTs are comparatively better as compared to PNQTs along different standards of professional skills including subject matter knowledge, human growth, and development, Islamic and ethical practice, instructional planning, assessment, learning environment, collaboration as described in NPSTs (Table 3). From the values of SD, we can conclude that PNQTs have less deviation from the mean; revealing PNQTs grouped at the same level of professional skills. This diversity depicts that professional education plays a significant role in developing specific professional skills. PQTs were better in professional skills than PNQTs (Table 3). Even though there was a higher mean score in professional skills of various aspects of PQTs than non-qualified overall but keeping in view the value of SD it can be concluded that $SD_{PQT} > SD_{PNQT}$. This diversity reveals that professional education is not playing a significant role in developing specific professional skills in teachers. Concerning mean score of 4.11 for school climate of PQTs has been found in better situations as compared to school climates with a mean score of 3.17 for professionally non-qualified teachers. overall better state of PQTs in skills and school climate are endorsing the previous findings that the quality of training provided through teacher education programs affects teachers' practice, effectiveness, and career commitment (Eren & Tezel, 2010; Liang, Ebenezer, & Yost, 2010; Roness, 2010).

The mean score of PQTs (91.66) is greater than the mean score of PNQTs (67.43) leading to the conclusion that professional skills exhibited by PQTs in school are comparatively better (Table 5). It can be concluded that PQTs skills were contributing more to developing various domains of school climates i.e., community relations, safety, institutional environment, and academic climate. Because correlation was found at a moderate level for professionally non-qualified teachers. It can be concluded that the school climate of PQTs was found better than PNQTs (table 7, Mean PQT = 4.11, Mean PNQT = 3.17). Even if there is comparatively a higher mean score in school climates of PQTs than PNQTs overall but keeping in view the value of SD we see that $SD_{PNQT} (0.517) > SD_{PQT} (0.409)$. However, literature guides that better academic performance can be achieved through improving the level of better school climate (Astor et. al, 2002) is linked with the assumptions that professional education contributes to developing good school climate eventually resulting students improved performance. The quality of teaching and learning taking place in the classroom, therefore, depends on teachers' skills and reflects the quality of teacher education programs.

References

- Afari, E., Aldirge, J. M., Fraser J. B., & SweKhine, M. (2013). Students' Perceptions of the Learning Environment and Attitudes in Game-Based Mathematics Classrooms. *Learning Environments Research*, 16(2013), 131-150.
- 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 February 18, 2021 from

http://ecommons.aku.edu/pakistan_ied_pdck/84

- Annisa, N., Akrim, A., & Manurung, A. A. (2020). Development Of Teacher's Professional Competency in Realizing Quality of Human Resources in The Basic School. *IJEMS: Indonesian Journal of Education and Mathematical Science*, 1(2), 156-160.
- Astor, R. Benbenishty, R. Zeira, Vinokur, A. (2002) School climate, observed risky behaviors, and victimization as predictors of high school students' fears and judgments of school violence as a problem. *Health Education Behavior*, 29(6), 716-731
- Austin, G., O'Malley, M., & Izu, J. (2011). *Making sense of school climate: using the california school climate, health, and learning (Cal-SCHLS) survey system to inform your school improvement efforts*. Los Alamitos: WestEd. Retrieved from californias3.wested.org/tools on 21.10.2019.
- Bassi, M., Meghir, C., & Reynoso, A. (2020). Education quality and teaching practices. *The Economic Journal*, 130(631), 1937-1965.
- Blank, R. K., & Alas, N. (2010). *Effects of teacher professional development on gains in student achievement: How meta-analysis provides scientific evidence useful to education leaders*. ERIC Document Reproduction Service No. ED514190.
- Bradshaw, C. P., Cohen, J., Espelage, D. L., & Nation, M. (2021). Addressing school safety through comprehensive school climate approaches. *School Psychology Eeview*, 50(2-3), 221-236.
- Brookhart, S. M. (2011). Educational assessment knowledge and skills for teachers. *Educational Measurement: issues and practice*, 30(1), 3-12.
- Budiningsih, T. (2005). Pengaruh Seleksi dan Kompensasi Terhadap Performansi Manajer Suatu Survei Pada Strategic Business Unit di Kota Bandung. *Jurnal Manajemen Maranatha*, 5(1), 1-8.
- Caires, S., & Almeida, L. S. (2005). Teaching practice in Initial Teacher Education: its impact on student teachers' professional skills and development. *Journal of Education for Teaching*, 31(2), 111-120.
- Christenson, S. L., & Sheridan, S. M. (2001). *Schools and families: Creating essential connections for learning*. New York, NY: Guilford.
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Pearson Education, Inc.
- Daily, S. M., Mann, M. J., Kristjansson, A. L., Smith, M. L., & Zullig, K. J. (2019). School climate and academic achievement in middle and high school students. *Journal of School Health*, 89(3), 173-180.
- Del Toro, J., & Wang, M. T. (2021). Longitudinal inter-relations between school cultural socialization and school engagement: The mediating role of school climate. *Learning and Instruction*, 75(2021), 101482.
- Eren, A., & Tezel, K. V. (2010). Factors influencing teaching choice, professional plans about teaching, and future time perspective: A mediational analysis. *Teaching and Teacher Education*, 6(7), 1416-1428.
- Fauth, B., Decristan, J., Decker, A. T., Büttner, G., Hardy, I., Klieme, E., & Kunter, M. (2019). The effects of teacher competence on student outcomes in elementary science education: The mediating role of teaching quality. *Teaching and Teacher Education*, 86 (2019), 102882.
- Grazia, V., & Molinari, L. (2021). School climate multidimensionality and measurement: A systematic literature review. *Research Papers in Education*, 36(5), 561-587.
- Hamzah, D. S., Ibrahim, M. S., & Ghavifekr, S. (2018). Change orientation and organizational climate: Experience from Malaysian primary schools. *MOJEM: Malaysian Online Journal of Educational Management*, 6(2), 83-108.
- Harris, R., Wilson-Daily, A. E., & Fuller, G. (2021). Exploring the secondary school experience of LGBT+ youth: an examination of school culture and school climate as understood by teachers and experienced by LGBT+ students. *Intercultural Education*, 32(4), 368-385.
- Haycock, K. (2003). School libraries and student achievement. *Teacher Librarian*, 31(1), 34.
- Hill, H. C., Rowan, B., & Ball, D. L. (2005). Effects of teachers' mathematical knowledge for teaching on student achievement. *American educational research journal*, 42(2), 371-406.
- Hoy, W. K., & Miskel, C. G. (2010). *Eğitim yönetimi* (S. Turan, Trans. Ed.). Ankara: Nobel Yayıncılık.
- Ju-Sen, L., & Chaoyun, L. (2014). The Perceived Influence of Learning Environment on Design Student Imagination. *International Journal of Learning, Teaching and Educational Research*, 2(1), 124-136.
- Kim, H. H. S., & Chun, J. (2018). Analyzing multilevel factors underlying adolescent smoking behaviors: the roles of friendship network, family relations, and school environment. *Journal of School Health*, 88(6), 434-443.
- Knight, S. L., & Wiseman, D. L. (2006). Lessons learned from a research synthesis on the effects of teachers' professional development on culturally diverse students. In *Preparing quality educators for*

English language learners, pp 81-108.

- Konishi, C., Hymel, S., Wong, T. K., & Waterhouse, T. (2021). School climate and bystander responses to bullying. *Psychology in the Schools*, 58(8), 1557-1574.
- Koth, C., Bradshaw, C., & Leaf, P. (2008). A Multilevel study of predictors of student perceptions of school climate: The effect of classroom-level factors. *Journal of Educational Psychology*, 100(1), 96-104.
- Liang, L. L., Ebenezer, J., & Yost, D. S. (2010). Characteristics of pre-service teachers' online discourse: The study of local streams. *Journal of Science Education and Technology*, 19(1), 69-79.
- López, V., Benbenishty, R., Astor, R. A., Ascorra, P., & González, L. (2020). Teachers victimizing students: Contributions of student-to-teacher victimization, peer victimization, school safety, and school climate in Chile. *American journal of orthopsychiatry*, 90(4), 432.
- Lukiianchuk, A., Kharahirlo, V., Sakhno, O., Tataurova-Osyka, G., & Stadnik, N. (2021). Conditions for the development of psychological and pedagogical competence of teachers of vocational (professional and technical) education. *Linguistics and Culture Review*, 5(S3), 678-696.
- Maba, W., Perdata, I. B. K., Astawa, I. N., & Mantra, I. B. N. (2018). Conducting assessment instrument models for teacher competence and teacher welfare as an effort to enhance education quality. *International research journal of management, IT, and social sciences*, 5(3), 46-52.
- Margolis, J. (2008). What will keep today's teachers teaching? Looking for a hook as a new career cycle emerges. *Teachers College Record*, 110(1), 160-194.
- Menter, I. (2016). Helga Eng lecture 2015: What is a teacher in the 21st century and what does a 21st century teacher need to know? *Acta Didactica Norge*, 10(2), 11-25.
- Mukhamadovna, T. M., Sharipovna, H. A., & Supkhonovna, H. N. (2020). The system of development of professional competence in future primary school teachers. *Journal of Critical Reviews*, 7(13), 4184-4189.
- Murkatik, K., Harapan, E., & Wardiah, D. (2020). The influence of professional and pedagogic competence on teacher's performance. *Journal of Social Work and Science Education*, 1(1), 58-69.
- Najoua, M., Nip, P. G., & Dina, A. (2020). The profile improvement of vocational schoolteachers' competencies. *Высшее образование в России*, 2(2020), 151-158.
- Payne, A. A., Gottfredson, D. C., & Gottfredson, G. D. (2003). Schools as communities: The relationships among communal school organization, student bonding, and school disorder. *Criminology*, 41(3), 749-778.
- Polit, D. F., & Beck, C. T. (2006). The content validity index: are you sure you know what is being reported? Critique and recommendations. *Research in nursing & health*, 29(5), 489-497.
- Prelow, H. M., Loukas, A., & Jordan-Green, L. (2007). Socio-environmental risk and adjustment in Latino youth: The mediating effects of family processes and social competence. *Journal of Youth Adolescence* 36(2007), 465-476.
- Ramelow, D., Currie, D., & Felder-Puig, R. (2015). The assessment of school climate. *Journal of Psychoeducational Assessment*, 33(8), 731-743.
- Rapti, D. (2013). School climate as an important component in school effectiveness. *Academic International Scientific Journal*, 4(08), 110-125.
- Raza, M., Waheed, S. A., Gilani, N. (2023). Digital Citizenship for Cyber Smart Students: A Framework for Schools in Pakistan. *Pakistan Journal of Social Sciences (PJSS)*, 43(1), 1-8.
- Raza, M., Gilani, N. & Waheed, S. A. (2021). School leaders' perspectives on successful leadership: A mixed methods case study of a private school network in Pakistan. *Frontiers in Education*, Vol. 6, Article 656491, 1-10, doi: 10.3389/educ.2021.656491. 16
- Roness, D. (2011). Still motivated? The motivation for teaching during the second year in the profession. *Teaching and teacher education*, 27(3), 628-638.
- Ruiz, L. D., McMahon, S. D., & Jason, L. A. (2018). The role of neighborhood context and school climate in school-level academic achievement. *American journal of community psychology*, 61(3-4), 296-309.
- Rumberger, R. W., & Palardy, G. J. (2005). Does segregation still matter? The impact of student composition on academic achievement in high school. *Teachers' college record*, 107(9), 1999-2045.
- Rumberger, R. W., & Palardy, G. J. (2005). Test scores, dropout rates, and transfer rates as alternative indicators of high school performance. *American educational research journal*, 42(1), 3-42.
- Shannon, G. S., & Bylsma, P. (2006). The High Schools We Need: Improving an American Institution. *Washington Office of Superintendent of Public Instruction*.
- Shapka, J., & Perry, N. (2012). School climate and social emotional learning: Predicting teacher stress, job satisfaction, and teaching efficacy. *Journal of Educational Psychology*, 104(4), 1189-1204.
- Sulak, T. (2016). School climate and academic achievement in suburban schools. *Education and Urban*

Society, 48(7), 672-684.

- Tsouloupas, C. N., Carson, R. L., Matthews, R., Grawitch, M. J., & Barber, L. K. (2010). Exploring the association between teachers' perceived student misbehaviour and emotional exhaustion: The importance of teacher efficacy beliefs and emotion regulation. *Educational Psychology*, 30(2), 173-189.
- Waheed, S. A., Gilani, N., Raza, M., & Sharif, S. (2022). Understanding Students' Experiences of Lived Space in Schools: A Phenomenological Perspective. *Journal of Research and Reviews in Social Sciences Pakistan*, 5(2), 1764-1776.
- Wang, M.-T., & Degol, J. L. (2016). School climate: A review of the construct, measurement, and impact on student outcomes. *Educational Psychology Review*, 28(2), 315-352.
- Wilson, C., Marks Woolfson, L., & Durkin, K. (2020). School environment and mastery experience as predictors of teachers' self-efficacy beliefs towards inclusive teaching. *International journal of inclusive education*, 24(2), 218-234.
- Wong, M. D., Dosanjh, K. K., Jackson, N. J., Runger, D., & Dudovitz, R. N. (2021). The longitudinal relationship of school climate with adolescent social and emotional health. *BMC public health*, 21(1), 1-8.
- Woolfolk, A., & Burke-Spero, R. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education*, 21(4), 343-356. doi: 10.1016/j.tate.2005.01.007
- Yusoff, M. S. B. (2019). ABC of content validation and content validity index calculation. *Resource*, 11(2), 49-54.
- Zaman, S., Waheed, S. A., & Gilani, N. (2022). An Assessment of the Usefulness of Online Performance Evaluation Reports (PERs) in Comparison to Manual Reports in Schools. *Pakistan Journal of Educational Research*, 5(4), 321-333.