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## Factors Contributing Towards Effective Teaching at Primary School Level

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### Abstract

This study was designed to find the contribution of teachers' academic qualification, professional qualification and experience on effective teaching at primary school level. A survey questionnaire titled effective teaching at primary school level was administered by the researchers to a sample of 213 primary school teachers, teaching in primary, middle and high schools in constituency 1, district of Muzaffarabad. Sample was selected after determining stratified proportions of teachers teaching in primary, middle and high schools respectively. Schools were selected using convenience sampling and then questionnaire was administered to 213 primary teachers in selected schools. Quantitative data obtained from questionnaire were analysed in SPSS using homogeneity of variances and 3-way ANOVA to explore the contribution of teachers' professional qualification, academic qualification and teaching experience towards effective teaching in primary schools. Findings of the study show that academic qualification, professional qualification and teaching experience have no significant contribution towards effective teaching at primary school level.

Keywords: Effective Teaching, National Professional Standards for Teachers, Academic Qualification, Professional Qualification, Teaching Experience, Primary Teachers, Instructional Planning

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## Introduction

Effective teaching at the primary school level plays a crucial role in shaping the educational foundation of students. Primary school is the stage where children build the basic skills that shape their future learning. The quality of teaching at this level matters because it directly affects how well students understand concepts, develop language and numeracy skills, and stay engaged in school and Teachers significantly influence students' learning and are eventually responsible for converting policy into action.

Teachers' academic qualification, knowledge of the subject matter, pedagogical skills and job experience have valuable impact on their teaching performance. Hargreaves (2004) suggested that if we want high-level profound learning for students, we must have well qualified and intellectually competent teachers. Teachers with higher academic qualifications possess a deeper understanding of the subject matter, enabling them to deliver more comprehensive and accurate instruction.

Professional qualifications of teachers such as certifications and specialized training have also been identified as key indicators of effective teaching. Mavhundutse (2014) states experience as a major factor contributing towards effective teaching. Teachers with higher professional qualification demonstrate a higher level of pedagogical knowledge and effective teaching is generally referred to the teachers' observable behaviours during instruction and classroom processes such as classroom organization, teaching methods, teacher expectations and efficient use of available classroom resources (Ko, Sammons & Bakkum, 2016). Based on the review of past studies, Rahilly & Saroyan (1997) reported that experienced teachers as compared to novice teachers were better at planning, observing student progress, problem identification and decision making according to class objectives.

Rehman, Jingdong & Hussain (2015) stated that literacy rate in Azad Jammu and Kashmir is 78 % but education quality is declining. In Azad Kashmir, 76% of class three students were unable to read an Urdu story of class one in 2014, while 74% in 2013 ((ITA), 2015, p. 210).

Azad Kashmir government implemented National Education Policy 2009 in Azad Jammu and Kashmir. According to NEP 2009 (P. 42) minimum required qualification for elementary teacher is B.A/B.Sc, with B. Ed. In order to fulfill the qualification criteria recommended in NEP2009, Government had retired 1000 under matric teachers in 2017 through golden handshake scheme and had decided to handshake 1000 more teachers holding only Matric qualification by December 2018 and to hire teachers with minimum qualification of B. A/ B.Ed. (Pakistan Point News - 22nd Jun, 2017).

This study is necessary because it examines whether academic qualification, professional qualifications and experience of primary school teachers actually contribute to effective teaching at primary level. By identifying the contribution of these factors in effective teaching at primary school level, this study serves as guide for educational policymakers and school administrators in making informed decisions about recruitment, training, and professional development of teachers at primary level. It will also help teachers to understand how their qualifications and experience shape classroom outcomes and will enable them to create conducive learning environments for learners, improve teaching practices and as a result enhance student learning outcomes by teaching effectively. Thus, this study has the potential to positively impact the field of education and contribute to the overall improvement of primary school education systems.

## Literature Review

### Effective Teaching

Understanding what makes a teacher effective, has significant implications for decision making about teacher preparation, recruitment, in-service professional development, compensation and evaluation of teachers. Effective teaching is a multidimensional construct and many scholars have tried to define it in different ways but unluckily, there is no single definition that educational experts have agreed upon.

Tang (2025) defines effective teaching as a teacher's ability to create a safe and supportive learning environment, build strong relationships with students, and demonstrate competence in delivering content. Effective teaching fosters a positive classroom climate, where students feel safe, respected, and supported in their learning journey (Weimer, 2013). Rosenshine (2012) has summarized a key set of principles that increase teaching effectiveness and stated that an effective teacher should review the prior learning shortly before beginning new lesson, teach new instructional material in small steps after making students to practice each step, ask frequent questions to check students responses, provide problem solving models and practical examples, guide student practice, analyze student learning, attain a high success rate, provide scaffolding for complex tasks, entail and supervise independent practice and review students on weekly and monthly basis.

Additionally, Coe, Aloisi, Higgins & Major (2014) grouped the effective teaching characteristics in domains like pedagogical and content knowledge, classroom climate, quality of teaching, classroom management, professional behaviours and teacher beliefs. Definitions cited above suggest that teaching effectiveness comprises of a set of activities and actions that a teacher performs to improve student outcomes and to achieve educational objectives i.e. instructional planning and use of pedagogical strategies, classroom assessment and creating learning environment.

### National Professional Standards for Teachers (NPST) in Pakistan

It seems obvious that there must be some standards to measure effectiveness of a professional in order to ensure accountability. Ministry of Education in Pakistan in partnership with UNESCO developed the following NPST (2009) that teachers are expected to follow, and are listed below.

- i. knowledge of the subject matter
- ii. Knowledge of human development and growth
- iii. Understanding of Islamic moral values and skills for social life
- iv. Good instructional planning and pedagogical strategies
- v. Ability and knowledge of assessment
- vi. Learning environment
- vii. Efficient communication and skilful use of information communication technology (ICT)
- viii. Co-operation and collaboration
- ix. Incessant professional development and code of conduct
- x. Teaching of English as second language

In the current study, researchers specifically used performance and skills of following three standards /components to measure effective teaching which are most closely related to classroom teaching i.e. good instructional planning and application of various pedagogical strategies, effective assessment and creating learning environment.

### **NPST Instructional Planning and Instructional Strategies**

This standard states that teachers must understand instructional planning, shall be able to make short-term and long-term plans regarding subject matter knowledge, curriculum goals, students, community and use of various suitable strategies to promote critical thinking, problem solving skills in all students.

### **Performance and Skills**

Teachers must explore and design teaching appropriate for students' development stage, capabilities, needs and learning styles. They should plan teaching on the basis of classroom data and community and school culture. Homework and out of the class activities shall also be well planned to step up, extend and strengthen students learning. Teachers shall use pedagogical knowledge, informal and formal assessment methods, knowledge of students and research as source for evaluation, reflection, and modification of practices.

Lesson planning plays a vital role in effective teaching (Strong, 2021). Khan, Siraj, & Ilyas, (2024) accentuated that lesson planning strategies if properly practiced, improve student academic achievement. To teach effectively, teachers must plan teaching and should employ a variety of pedagogical strategies. Lesson planning has long been considered an important skill for teachers. Lesson plan signals what teachers intend to teach (Morris & Hiebert, 2017). Planning lessons is considered a highly beneficial practice at which teachers should be expert otherwise they might face difficulty in their efforts to teach effectively (Ball & Forziani, 2011).

### **NPST Classroom Assessment**

According to NPST, teachers should evaluate students' knowledge using various assessment methods and interpret results to assess and enhance students' learning and to improve teaching practices to promote the incessant student development.

### **Performance & Skills**

Teachers must prepare and administer tests for incessant formative assessment of students' knowledge, skills and performance at various levels of the educational programme. They shall observe students' performance employing multiple data sources, and adapt future plans and teaching strategies to promote preferred student learning outcomes. Teachers should provide timely and positive feedback to students about their educational progress and hearten them to employ this feedback and self- assessment techniques to observe their own learning to achieve individual goals.

Ability and knowledge of assessment is another factor of teaching effectiveness most related to classroom. Suwandi (2023) defined Classroom assessment as an activity to measure student achievement and the success or failure of the educational process. To teach effectively, teachers must have knowledge of different assessment methods and techniques, their merits and demerits and their application. They should know when and how to access. It is also essential to make effective use of information gained through the assessment, to improve student learning.

### **NPST Learning Environment**

NPST state that teachers must build a safe, respectful and supportive classroom environment to facilitate constructive social interactions, vigorous student involvement in learning and self-motivation among students to learn.

### **Performance & Skills**

Teachers should prepare and share discipline rules and classroom management plans. They should build a supportive learning environment for students, by employing group facilitation and efficient listening skills. School environment shall be socially, emotionally and physically safe for learners. Teachers should create and maintain suitable standards of competitive behavior and should manage and utilize instructional time effectively.

It is an important task of a teacher to create an effective learning environment that boosts up students' motivation and supports them physically, mentally and emotionally to maximize their learning. Appropriate learning environment is a contributing factor to student learning and outcomes. Learning environment refers to an instructional approach, cultural and social context, or physical location in which teaching and learning take place.

### **Various Approaches to Measure Effective Teaching**

Three different but interrelated angles are in use to measure effective teaching: Measurement of educational inputs, processes and outputs.

1. Inputs are background characteristics of teachers usually measured as content knowledge and pedagogical acumen, professional qualification, certification, academic qualification, expectations and experience.
2. Processes refer to the interactions between teachers and students in the classroom.
3. Outputs represent the impact and result of classroom processes, like student achievements, graduation rates, engagement, student behaviours, attitudes and social emotional well-being.

Self-evaluation or Self-rating is the most appropriate method and provides significant source of evidence to estimate Teacher Effectiveness because perception about personal weaknesses and strengths is of greater value (Barge, 2012).

Berk (2005) suggested that teachers' self-evaluation is a source widely used at university level to measure teaching effectiveness. He further stated that Carnegie Foundation for Advancement of Teaching (1994) found that 82% of universities and colleges used self-evaluations to measure teaching performance. Self-evaluation enables teachers to identify their own strengths and weaknesses and the ways to become more effective (Taylor, 1994). Teachers' self-evaluation demonstrates their knowledge about teaching and the way they perceive effectiveness while teaching in the classroom (Cranton, 2001).

In the current study, researchers have used teacher's self-evaluation to explore the contribution of their professional qualification, academic qualification and teaching experience on their classroom practices to teach effectively at primary school level.

### **Factors Contributing Towards Effective Teaching**

Teachers' level of education and teaching experience, as core teacher quality attributes, received greater attention of educationist and scholars. Researchers have suggested a relationship between teachers' education, experience, certification status and the students' achievement (Manning, Bullock & Gable, 2009; Feng & Sass, 2013). Barman, Bhattacharyya & Barman (2015) found the following factors of effective teaching.

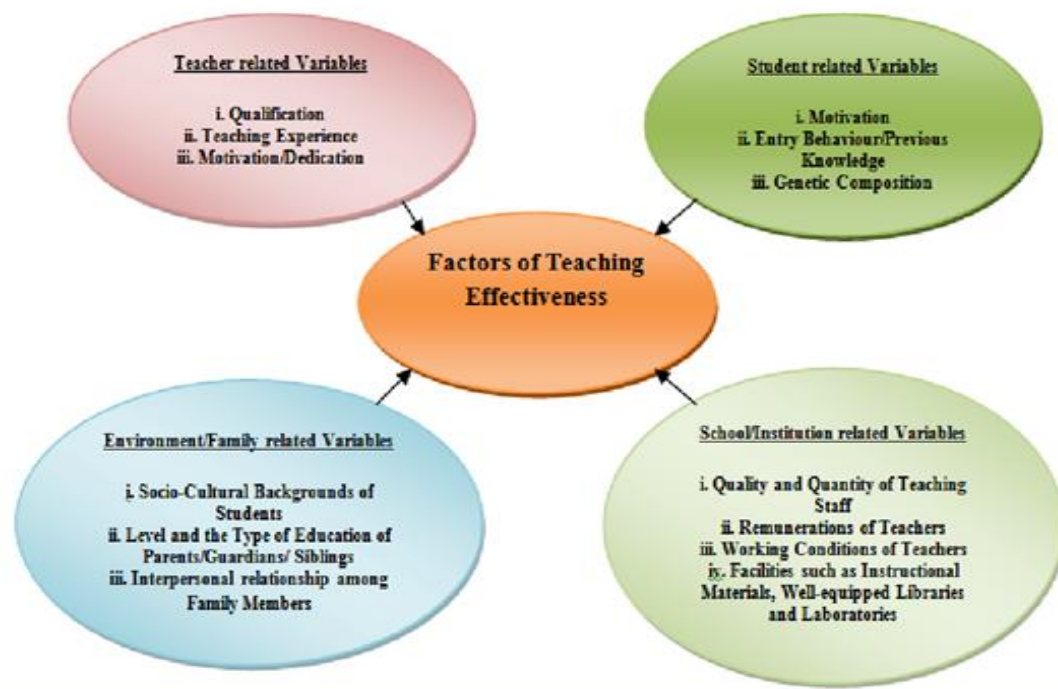


Figure 1. Factors of Teaching Effectiveness

Barman et al. (2015)

This study aimed to explore the contribution of teacher related factors in effective teaching.

### Teacher's Academic Qualification and Effective Teaching

According to Arifin, M.Pd.K, & Arifudin,(2024) reported significant positive relationships between classroom environment and student academic performance, as well as teacher professional development and student academic performance, emphasizing the importance of inclusive and nurturing classroom environments and comprehensive professional development programs. Teachers' academic qualification and professional qualification greatly influence their self-efficacy and effectiveness (Warsi & Khurshid, 2022). Quality of effective teaching depends upon teacher's academic achievements and psychological abilities Gupta & Verma (2021). Teacher's master's degree will positively impact students' mathematics achievements only if the teacher has master's degree in mathematics as a major subject (Horn & Jang, 2017).

Henry, Bastian, Fortner, Kershaw, Purtell, Thompson & Zulli (2014) and Ladd and Sorensen (2015) established that the composite scores of students taught by a master degree holder teacher were not significantly different from the test scores of students whose teachers had no master's degree. Gage, Adamson, MacSuga-Gage & Lewis, (2017) using hierarchical linear modeling, found no significant effect of teachers' qualification, years of experience and certification on the growth in students' academic achievements across time. Seweje & Jegede (2005) also concluded that teacher's ability to teach effectively for better student achievement cannot only be judged from the educational background but it depends upon remarkable pedagogical skills of the teacher.

### **Teachers' Professional Qualification and Effective Teaching**

Fatima, Javaid, & Malik (2023) concluded that Academic qualification, professional development and teaching experience are key factors of effective teaching at primary level but data derived from observations of professionally trained and untrained teachers found no noteworthy difference between overall performance scores of untrained and trained teachers regardless of the subject taught (Jones, 1997; Kimani, Kara & Njagi, 2013).

Harris & Sass (2011) investigated the impact of different types of education and training on teachers' productivity in enhancing student achievement. They accentuated that Teachers' pre-service training and scores in college entrance examination also had no influence on their productivity. Coursework in pedagogy strongly influence teachers' productivity when the pedagogy courses are pooled with content based courses (Wayne & Youngs, 2003). Yala & Wanjohi (2011) identifying the teacher quality on the basis of student performance along with the impact of teacher and school factors in Texas, also established that teachers' educational qualification and experience had no significant relationship with students' performance.

### **Teaching Experience and Effective Teaching**

Mavhundutse (2014) states experience as a major factor contributing towards effective teaching. Podolsky, Kini & Darling-Hammond (2019) summarized the key findings from a critical review of US research and found that teaching experience has positive relationship with student achievement outcomes. Contrary to that, Department of Education Harare (2012) concluded that recently trained and less experienced teachers are more effective than those with more experience as newly trained qualified teachers have up-to-date knowledge, skills and learning experience so they seem to offer more and better.

According to Tella (2017), teachers' qualification, experience, and attitude were not significantly correlated with students' achievement in mathematics. The insignificant impact of the teacher's qualification, age, experience, and gender on teaching effectiveness suggests that students in recent times regard these criteria as less relevant in determining teaching effectiveness (Tran & Do, 2020). Pranoto, Utami, Latiana, and Ahmadi (2021) also reported no differences in teaching performance on the basis of teachers' experiences. They further concluded that the decrease in teaching performance with increasing years of experience was caused by the loss of the initial support structure, increased responsibilities and workload.

### **Conceptual Framework**

It can be concluded from the past literature that teachers' academic qualification, professional qualification and experience have varying effects on effective teaching. Although, the literature on effective teaching is fairly extensive, but unluckily, little is known from existing high quality researchers about what effective teachers do to cause greater student gains in learning. Most of the previous studies used a theoretical framework specifically focused on teacher background, ignoring to investigate teaching practices and attitudes. Most of the existing literature is driven from research at secondary or higher secondary level while only a few of the cited studies focused at primary school level.

Further research is required to identify and define more carefully the skills and practices related to effective teaching, and how to develop them in teacher education programmes (US National Mathematics Advisory Panel, 2008). Most of the existing researches on effective teaching is driven from the western and industrial school context (Riddell, 2008), and African countries. In addition, previous researchers have predominantly used student outcomes to measure effective teaching which is not an appropriate measure as student outcomes do not depend on teacher factors only, but also on the heredity and environmental factors too. Other measures such as peer review and principal's views may also be discriminatory so the method

chosen to be used by this study is teachers' self-rating about classroom practices to teach effectively.

This study is undertaken to find the contribution of different factors i. e. academic qualification, professional qualification and experience to effective teaching at primary school level in constituency 1, Muzaffarabad, AJK. Practices and skills given in NPSTs are used to measure effective teaching by asking teachers themselves about the practice and activities they use in their classroom by administering them a questionnaire i. e. instructional planning and use of pedagogical strategies, classroom assessment and creating learning environment.

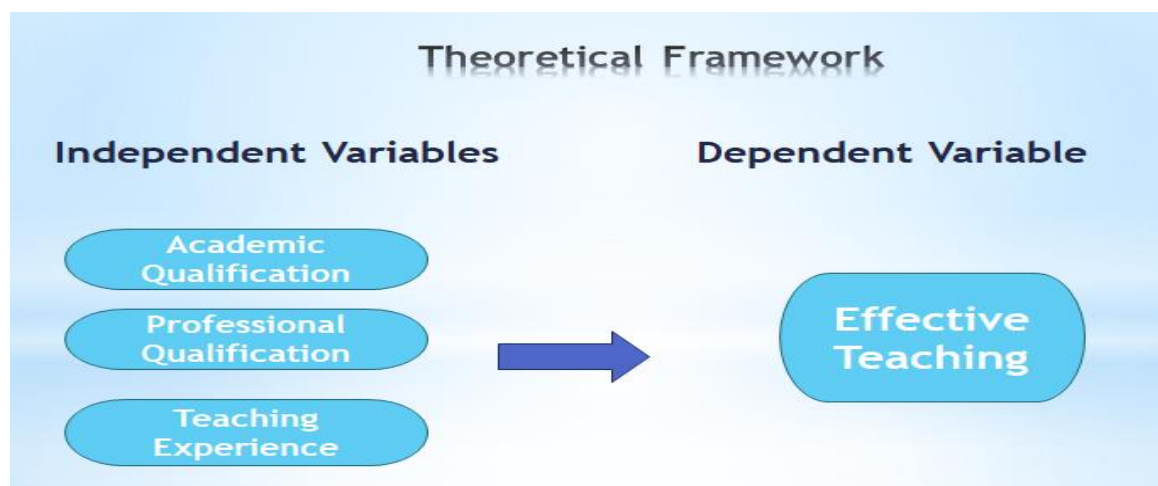


Figure 2. Contribution of academic qualification, professional qualification and experience to effective teaching

### Problem Statement

In order to fulfill the qualification criteria recommended in NEP2009, Government of AJK retired 1000 under matric teachers in 2017 through golden handshake scheme and had decided to handshake 1000 more teachers holding only Matric qualification by December 2018 and to hire teachers with minimum qualification of B. A/ B.Ed. (Pakistan Point News - 22nd Jun, 2017). This scenario forced the researcher to find out whether academic qualification, professional qualifications and experience of primary school teachers contribute to effective teaching at primary school level.

The problem under-study is, to explore the contribution of teachers' academic qualification, professional qualification and experience towards effective teaching at primary level.

### Objective Questions

The objectives of this research are:

1. To explore difference between Effective Teaching by primary teachers on the basis of their Professional Qualification.
2. To find out difference between Effective Teaching by primary teachers in primary classes based on their Academic Qualification.
3. To find out the difference between Effective Teaching by primary teachers based on their Experience.



### Research Questions

1. Does academic qualification contribute to effective teaching at primary school level?
2. Does teachers' professional qualification contribute to effective teaching at primary school level?
3. Does teachers' teaching experience contribute to effective teaching at primary school level?

### Methodology

This study is based on descriptive survey research design of ex-post facto type because none of the variables in the study was manipulated. A survey questionnaire titled effective teaching at primary school level was administered by the researchers to a sample of 213 primary school teachers, teaching in primary, middle and high schools in constituency 1, district of Muzaffarabad. Sample was selected after determining stratified proportions of teachers teaching in primary, middle and high schools respectively. Schools were selected using convenience sampling and then questionnaire was administered to 213 primary teachers in selected schools. Quantitative data obtained from questionnaire were analysed in SPSS using homogeneity of variances and 3-way ANOVA to explore the contribution of teachers' professional qualification, academic qualification and teaching experience towards effective teaching in primary schools.

### Operational Definitions of the Variables

In this study, following terms are used as defined below;

#### Effective Teaching

Effective teaching means practices, teaching skills and competencies that effective teachers use during teaching in the classroom in order to facilitate students' intellectual growth and maximize their learning. As reviewed in the literature above, Effective teaching has several dimensions that are too broad to be covered in single study, so in this study, from 10 Professional Standards for Teachers, prepared by Ministry of education Pakistan, we have investigated following three components of Effective Teaching which are most closely related to class room teaching i.e.

1. Good Instructional Planning and Application of Various Pedagogical Strategies
2. Effective Assessment
3. Creating Learning Environment

#### Academic Qualification

Academic qualification means the level of academic degree with respect to number of years that a teacher holds such as F.A / F.Sc, B.A / B.Sc, M.A / M.Sc, M.Phil. and Ph.D. etc. To measure the contribution of academic qualification on effective teaching, Teachers were categorized in following four categories on their academic qualification i.e.

- a. Matric (10 years education)
- b. FA/FSC ( 12 years education)
- c. B.A/ B.Sc. ( 14 years education)
- d. M.A/ M.Sc.and above (16 years education and above)

#### Professional Qualification

Professional qualification means all teacher preparation programmes including professional degrees, courses and diplomas developed to enhance professional knowledge and skill of teachers such as P.T.C, C.T, B.Ed, M.Ed, ADE, B.S Education and M.Phil education etc. Professional qualification is measured and analysed by making following four categories,

- a. PTC
- b. C.T

- c. B.Ed and Equivalent
- d. M.Ed and Equivalent

### Teaching Experience

In this study, term Teaching Experience means number of years a teacher has served in Teaching at primary level. Teaching Experience is measured by making three categories of teachers based on their experience i.e.

- a. Teachers with 0-5 years' experience
- b. Teachers with more than 5 but less or equal to 15 years teaching experience.
- c. Teachers having more than 15 years teaching experience.

### Research Instrument

A five point ratings scale questionnaire titled effective teaching at primary school level was designed to assess effective teaching at primary. Performance and skills given in National Professional Standards for Teachers were used as base to create this questionnaire and the questionnaire consisted of the following three sections.

1. Instructional Planning and Strategies
2. Classroom Assessment
3. Creating Learning Environment

Questionnaire consisted upon a total of 51 items. Section 1 included items 1-16, enquired about instructional planning and strategies, Section 2 consisted of items 17-32 and enquired about the classroom assessment by primary teachers while items 33-51 in section 3 enquired about creating learning environment in classroom.

### Validity and Reliability of Questionnaire

Research instrument was validated by colleagues for face, construct and content validity assurance while the reliability was established by administration of the instrument on 27 primary school teachers that were not part of the final samples of the study, but had same characteristic features like the final samples of the study. The validity and reliability reports are presented on tables 1 and 2.

**Table 1**

#### *Validity Report of Questionnaire*

Cases	Number of questionnaires	Percentage
Valid	27	100
Excluded	0	0
Total	27	100

**Table 2**

#### *Reliability Statistics*

Cronbach's Alpha	Number of questions
0.875	51

Value of  $\alpha$  shows high reliability.

### Population

Population of the study consists of 457 primary school teachers teaching in primary, middle and high schools in constituency 1 district Muzaffarabad. Approximately 77 primary teachers are teaching in high schools, 92 in middle schools and 288 in primary schools.

**Table 3***Population of The Study*

S. No	Type of school	Total number of schools	Total number of teachers	Sample
1	Primary schools	157	288	134
2	Middle schools	31	92	48
3	High schools	20	77	36

**Sample**

From the population of 457 primary teachers, a sample of 213 primary school teachers was selected for the survey. Sample size was calculated using Solvin's Formula (Slovin, 1960). For sample, 36 primary teachers were selected from high schools, 48 from middle schools and 134 primary teachers were selected from primary schools.

**Table 4***Distribution of Sample With Respect to Academic Qualification, Professional Qualification and Experience*

Variables	Categories	N
Academic Qualification	Matric	29
	F.A / F.Sc	19
	B.A/B.Sc	89
	M.A/ M.Sc and above	76
Professional Qualification	PTC	46
	C.T	23
	B.Ed and equivalent	92
	M.Ed and equivalent	52
Experience	Less or equal to 5 years Experience	41
	More than 5 years but less or equal to 15 years experience	89
	More than 15 years	83
Total		213

**Method of Data Collection**

Data for this study was collected by administering a questionnaire titled effective teaching at primary school level, to the primary teachers teaching in primary, middle and high schools in Constituency 1 Muzaffarabad. Sample was selected after determining stratified proportions of teachers teaching in Primary, Middle and High schools respectively. Schools were selected on convenience basis and then all primary teachers available in those schools were asked to fill the questionnaires. Questionnaires were distributed personally by the researchers and also by post to some schools. Data were collected after seeking written permission from the head of department.

**Findings**

Quantitative data obtained from questionnaire was analysed in SPSS using Three – Way ANOVA and Homogeneity of variances explore the contribution of teachers' academic qualification, professional qualification and teaching experience to effective teaching at primary school level.

**Table 5**

*Homogeneity of Variances by Various Categories of Teachers in Effective Teaching on The Basis of Academic Qualification, Professional Qualification and Experience (LEVENE'S TEST)*

Independent Variables	Dependent Variable	Levene Statistic	df1	df2	Sig
Academic Qualification	Effective Teaching	.483	3	209	.695
Professional Qualification		1.556	3	209	.201
Experience		1.273	2	210	.282

Table 5 indicate that there is no significant difference in effective teaching by various categories of teachers based on their academic qualification, [F (3, 209) = .483,  $p > 0.05$ ]. Table 5 indicates no major difference in effective teaching by various categories of teachers based on their professional qualification, [F (3, 209) = 1.556,  $p > 0.05$ ]. Table 5 shows no significant difference in effective teaching by teachers based on their teaching experience, [F (2,210) = 1.273,  $P > 0.05$ ].

**Table 6**

*Contribution of Academic Qualification, Professional Qualification and Teaching Experience on Effective Teaching at Primary Level (Three-Way ANOVA Results)*

Source	Type III Sum of Squares	Df	Mean Square	F
Corrected Model	5557.183(a)	20	277.859	1.064
Intercept	1980818.193	1	1980818.193	7586.19
Academic Qualification	1548.918	3	516.306	1.977
Professional Qualification	542.421	3	180.807	.692
Experience	933.649	2	466.824	1.788
Academic Qualification *Professional Qualification	130.754	2	65.377	.250
Academic Qualification * Experience	1646.728	3	548.909	2.102
Professional Qualification * Experience	960.722	6	160.120	.613
Academic Qualification *Professional Qualification * Experience	19.131	1	19.131	.073
Error	50132.770	192	261.108	
Total	9422968.000	213		
Corrected Total	55689.953	212		

Table 6 shows that academic qualification has no significant contribution towards effective teaching [F (3, 209) = 1.977,  $P > 0.05$ ]. Table 6 indicate that professional qualification has no significant contribution towards effective teaching [F (3, 209) = .692,  $P > 0.05$ ]. Results from Table 6 indicate that teaching experience has no significant contribution towards effective teaching [F (2, 210) = 1.788,  $P > 0.05$ ].

## Results and Discussion

First research question investigated whether academic qualification contributed to effective teaching at primary level. It was observed that teachers' academic qualification has no significant contribution in effective teaching at primary level. Teachers having various levels of academic qualification teach equally effectively. There was no notable difference in effective teaching by teachers teaching at primary level on the basis of their academic qualification. (Table 5, Table 6). This assertion may seem counterintuitive, as one might assume that higher academic qualifications would naturally lead to more effective teaching. However, research and empirical evidence indicate otherwise.

Henry, Bastian, Fortner, Kershaw, Purtell, Thompson & Zulli (2014) and Ladd & Sorensen (2015) also found no major difference between the achievement scores of students taught by the teachers with master's degree and those taught by the teachers holding other degrees. Teachers' observable characteristics, like age, education level and qualification do not predict differences in teacher's ability to promote student learning outcomes (Kane & Staiger, 2012).

Horn & Jang (2017) examined the frequency of graduate degrees among teachers in the United States in order to summarize research on the relationship between teachers' education and student achievements. They agreed that teachers teaching at ECE, primary, elementary and junior high school level, holding a master's degree had no significant influence on students' reading achievement, as compared with the teachers holding a bachelor's degree only. Seweje & Jegede (2005) also noted that teacher's ability to teach effectively for better student achievement cannot only be judged by the educational background, but it depends upon remarkable pedagogical skills of the teacher. While advanced degrees may be highly valued in higher education or specialized subjects, they may not be as relevant in the primary level. Primary education focuses on foundational knowledge and skill development, which may not require extensive academic qualifications. Second question inquired whether teachers' professional qualification contributes to effective teaching at primary school level.

Findings of the study suggested that teachers' professional qualification does not contribute significantly to effective teaching. There was no notable difference between the effective teaching teachers with higher and lower degree of professional qualification (Table 5, Table 6). The finding was also in line with some past research results. Yala & Wanjohi (2011) identifying the teacher quality on the basis of student performance along with the impact of teacher and school factors in Texas, established that teachers' educational qualification and experience had no significant relationship with students' performance. The quality of the teacher education programme can also greatly influence the correlation of teachers' professional education and effective teaching. The insignificant impact of the teacher's qualification, age, experience and gender on teaching effectiveness suggest that students in recent times, regard these criteria as less relevant in determining teaching effectiveness (Tran, & Do (2020).

Harris & Sass (2011) also established that teachers' pre-service training and scores in college entrance examination had no significant influence on their productivity. Kimani, Kara, & Njagi (2013) and Buddin & Zamarro, (2009) also found that professional qualification and teaching experience had no significant relationship with students' learning outcomes.

Answering question three which states that, Does teachers' teaching experience contribute to effective teaching at primary school level? Research indicates that there was no significant contribution of teachers' experience to effective teaching at primary school level. Novice and experienced teachers are equal likely to teach effectively at primary level. It is

concluded that teaching experience does not contribute in effective teaching at primary level (Table 5, Table 6).

This finding was also in line with the conclusion of Department of Education Harare (2012) that teachers who were recently trained and less experienced were more effective than those with more experience as newly trained qualified teachers have up-to-date knowledge, skills and learning experience so they seem to offer more and better. The teaching landscape is constantly evolving with new research and technological advancements. Experienced teachers may rely heavily on traditional methods and be resistant to adopt latest technology and change. On the other hand, a young and inexperienced teacher may be more open to incorporating innovative approaches and adapt quickly to new strategies.

Pranoto, Utami, Latiana, and Ahmadi (2021) also reported no differences in teaching performance on the basis of teachers' experiences. They further concluded that the decrease in teaching performance with increasing years of experience was caused by the loss of the initial support structure, increased responsibilities and workload. Ravkin et al., (2005) and Yala & Wanjohi (2011) also concluded that teachers' academic qualification and experience had no significant relationship with students' academic achievement. Teachers' qualification, experience and attitude were not significantly correlated with students' achievement in mathematics (Tella, 2017). Gage et al. (2017) also found no significant impact of teachers' years of experience on the growth in students' academic achievements across time.

During the visit to schools, for data collection, it was found that schools lacked resources such as infrastructure, space for separate classes, and instructional technology etc. Poor student teacher ratio especially in primary schools also affected the quality teaching where one or two teachers taught 6 classes. In some schools, it was found that actual teacher was not present at school and untrained, less-qualified proxy teachers were performing teaching. These problems might have negatively affected teachers' performance delimiting the impact of experience.

### Conclusion and Recommendations

It is concluded from the findings that there was no significant difference in effective teaching by primary teachers on the basis of their academic qualification, professional qualification and teaching experience.

The results of the study are in line with the common observation that most of the private schools that have less qualified, untrained and inexperienced teachers, produce better results in board examination as compared to government owned schools with well qualified and experienced staff. The study recommended that

1. Government may hire fresh and well qualified teachers, but they should not retire less qualified, experienced teachers as they are teaching equally effectively.
2. Teacher preparation programmes shall be made more effective to enhance contribution of professional qualification on effective teaching.
3. Comprehensive research is required to well establish the relationship between teachers' academic qualification, professional qualification and experience on specific teaching practices using direct observation technique.

### References

- Arifin, A., S.S., M.Pd.K., D. S., & Arifudin, O. (2024). The relationship between classroom environment, teacher professional development, and student academic performance in secondary education. *International Education Trend Issues*, 2(2), 151–159. <https://doi.org/10.56442/ieti.v2i2.467>

- Ball, D. L., & Forzani, F. M. (2010). What does it take to make a teacher? *Phi Delta Kappan*, 92(2), 8–12. <https://doi.org/10.1177/003172171009200203>
- Ball, D. L., & Forzani, F. M. (2011). Building a common core for learning to teach: And connecting professional learning to practice. *American Educator*, 35(2), 17.
- Barge, J. (2012). *Leader keys: A leadership performance appraisal system*. Georgia Department of Education.  
[https://www.nctq.org/dmsView/Georgia\\_TKES\\_Handbook\\_7-18-2012](https://www.nctq.org/dmsView/Georgia_TKES_Handbook_7-18-2012)
- Barman, P., Bhattacharyya, D., & Barman, P. (2015). Teaching effectiveness of teacher educators in different types of B.Ed colleges in West Bengal, India. *American Journal of Educational Research*, 3(11), 1364–1377.
- Berk, R. A. (2005). Survey of 12 strategies to measure teaching effectiveness. *International Journal of Teaching and Learning in Higher Education*, 17(1), 48–62.
- Betts, J. R., Andrew, C. Z., & Lorien, A. R. (2003). *Determinants of student achievement: New evidence from San Diego*. Public Policy Institute of California.  
[https://www.ppic.org/content/pubs/report/R\\_803JBR.pdf](https://www.ppic.org/content/pubs/report/R_803JBR.pdf)
- Buddin, R., & Zamarro, G. (2009). Teacher qualification and student achievement in urban elementary schools. *Journal of Urban Economics*, 66(2), 103–115.
- Budget book. (2018). *Education schools male 2018–19*. <http://www.financeajk.gok.pk/wp-content/uploads/2019/02/Education-Schools-Male-2018-19.pdf>
- Budget book. (2018). *Education schools female 2018–19*.  
<http://www.financeajk.gok.pk/wp-content/uploads/2019/02/Education-Schools-Female-2018-19.pdf>
- Coe, R., Aloisi, C., Higgins, S., & Major, L. E. (2014). *What makes great teaching: Review of the underpinning research* (pp. 1–57).
- Cranton, P. (2001). *Becoming an authentic teacher in higher education*. Krieger Publishing Company.
- Danielson, C. (2013). *The framework for teaching evaluation instrument, instructionally focused edition*. <https://usny.nysed.gov/rttt/teachers-leaders/practicerubrics/Docs/danielson-teacher-rubric-2013-instructionally-focused.pdf>
- Department of Education, Sport and Culture. (2012). *Education regulations*. Harare: Government Printers.
- Fatima, S., Javaid, B., & Malik, M. S. (2023). Factors affecting the quality of education at primary school level. *Annals of Human and Social Sciences*, 4(4), 473–480.  
[https://doi.org/10.35484/ahss.2023\(4-IV\)46](https://doi.org/10.35484/ahss.2023(4-IV)46)
- Feng, L., & Sass, T. R. (2013). What makes special-education teachers special? Teacher training and achievement of students with disabilities. *Economics of Education Review*, 36, 122–134.
- Gage, N. A., Adamson, R., MacSuga-Gage, A. S., & Lewis, T. J. (2017). The relation between the academic achievement of students with emotional and behavioral disorders and teacher characteristics. *Behavioral Disorders*, 43(1), 213–222.
- Goe, L., Bell, C., & Little, O. (2008). *Approaches to evaluating teacher effectiveness: A research synthesis*. National Comprehensive Center for Teacher Quality.

<https://scholar.google.com/scholar>

- Gupta, M., & Verma, G. (2021). Teaching effectiveness of school teachers: A theoretical perspective. *International Journal of Creative Research Thoughts (IJCRT)*, 9(10), 172–179.
- Hargreaves, D. H. (2004). *Personalising learning: Student voice and assessment for learning*. Specialist Schools Trust with the Secondary Heads Association.
- Harris, D. N., & Sass, T. R. (2011). Teacher training, teacher quality and student achievement. *Journal of Public Economics*, 95(7–8), 798–812.
- Henry, G. T., Bastian, K. C., Fortner, C. K., Kershaw, D. C., Purtell, K. M., Thompson, C. L., & Zulli, R. A. (2014). Teacher preparation policies and their effects on student achievement. *Education Finance and Policy*, 9(3), 264–303.
- Horn, A. S., & Jang, S. T. (2017). The impact of graduate education on teacher effectiveness: Does a master's degree matter? *MHEC Research Brief*. Midwestern Higher Education Compact.
- Huba, M. E., & Freed, J. E. (2000). *Learner-centered assessment on college campuses: Shifting the focus from teaching to learning*. Allyn & Bacon.
- ITA. (2015). *Annual status of education report ASER-Pakistan 2014: South Asia for Education Development*.
- Jones, M. (1997). Trained and untrained secondary school teachers in Barbados: Is there a difference in classroom performance? *Educational Research*, 39(2), 175–184. <https://doi.org/10.1080/0013188970390205>
- Kane, T. J., & Staiger, D. O. (2012). *Gathering feedback for teaching: Combining high-quality observations with student surveys and achievement gains* (Research paper). MET Project, Bill & Melinda Gates Foundation.
- Khan, S., Siraj, D., & Ilyas, Z. (2024). Effect of lesson planning on academic performance: Evidence from the elementary level classroom. *Pakistan Social Sciences Review*, 8(1), 169–177. [https://doi.org/10.35484/pssr.2024\(8-I\)15](https://doi.org/10.35484/pssr.2024(8-I)15)
- Kimani, G., Kara, A., & Njagi, L. (2013). Teacher factors influencing students' academic achievement in secondary schools in Nyandarua County, Kenya. *International Journal of Education and Research*, 1, 1–14.
- Ko, J., Sammons, P., & Bakkum, L. (2016). *Effective teaching*. Education Development Trust.
- Ladd, H. F., & Sorensen, L. C. (2015). *Do master's degrees matter? Advanced degrees, career paths, and the effectiveness of teachers*. CALDER. <https://files.eric.ed.gov/fulltext/ED587162.pdf>
- Manning, M. L., Bullock, L. M., & Gable, R. A. (2009). Personnel preparation in the area of emotional and behavioral disorders: A reexamination based on teacher perceptions. *Preventing School Failure: Alternative Education for Children and Youth*, 53(4), 219–226.
- Ministry of Education. (2009). *National education policy*. Government of Pakistan. [http://itacec.org/document/2015/7/National\\_Education\\_Policy\\_2009.pdf](http://itacec.org/document/2015/7/National_Education_Policy_2009.pdf)
- Morris, A. K., & Hiebert, J. (2017). Effects of teacher preparation courses: Do graduates use what they learned to plan mathematics lessons? *American Educational*



- Research Journal*, 54(3), 524–567.
- National Mathematics Advisory Panel. (2008). *Foundations for success: The final report of the National Mathematics Advisory Panel*. USDOE.
- National professional standards for teachers, Pakistan. (2009).  
<http://unesco.org.pk/education/documents/step/National%20Professional%20Standards%20for%20Teachers%20in%20Pakistan.pdf>
- Podolsky, A., Kini, T., & Darling-Hammond, L. (2019). Does teaching experience increase teacher effectiveness? A review of US research. *Journal of Professional Capital and Community*. <https://doi.org/10.1108/JPCC-12-2018-0032>
- Pranoto, Y. K., Utami, D. R., Latiana, L., & Ahmadi, F. (2021, March). Do teachers' experiences and ages contribute to their teaching performance. In *Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management, Singapore* (pp. 3515–3522).
- Rahilly, T. J., & Saroyan, A. (1997). Characterizing poor and exemplary teaching in higher education. *ERIC Document Reproduction Service*.  
<https://files.eric.ed.gov/fulltext/ED410806.pdf>
- Rehman, A., Jingdong, L., & Hussain, I. (2015). The province-wise literacy rate in Pakistan and its impact on the economy. *Pacific Science Review B: Humanities and Social Sciences*, 1(3), 140–144.
- Rosenshine, B. (2012). Principles of instruction: Research-based strategies that all teachers should know. *American Educator*, 36(1), 12.  
<http://www.aft.org/pdfs/americaneducator/spring2012/Rosenshine.pdf>
- Seweje, R. O., & Jegede, S. A. (2005). *Science education and science teaching methods*. Lagos: Atlantic Association.
- Slovin, E. (1960). Slovin's formula for sampling technique.  
[www.statisticshowto.datasciencecentral.com/how-to-use-slovins-formula](http://www.statisticshowto.datasciencecentral.com/how-to-use-slovins-formula)
- Strong, M. (2021). *The art of lesson planning: Strategies for effective teaching*. Routledge.
- Suwandi, I. N. (2023). The roles of teachers and schools in conducting effective classroom assessment. *International Journal of Social Science*, 3(1), 45–50.  
<https://doi.org/10.53625/ijss.v3i1.5755>
- Tang, K. H. D. (2025). A narrative review of how students perceive a good teacher. *Acta Pedagogica Asiana*, 4(2), 66–85. <https://doi.org/10.53623/apga.v4i2.593>
- Tran, T. T. T., & Do, T. X. (2020). Student evaluation of teaching: Do teacher age, seniority, gender, and qualification matter? *Educational Studies*, 48(4), 443–470.  
<https://doi.org/10.1080/03055698.2020.1771545>
- Taylor, L. (1994). Reflecting on teaching: The benefits of self-evaluation. *Assessment & Evaluation in Higher Education*, 19(2), 109–122.
- Tella, A. (2017). Teacher variables as predictors of academic achievement of primary school pupils mathematics. *International Electronic Journal of Elementary Education*, 1(1), 16–33.
- Warsi, L. Q., & Khurshid, K. (2022). The role of self-assessment in English language teachers' professional development in Pakistan. *Education Research International*, 2022(1), 9401995. <https://doi.org/10.1155/2022/9401995>

- Wayne, A. J., & Youngs, P. (2003). Teacher characteristics and student achievement gains: A review. *Review of Educational Research*, 73(1), 89–122.
- Weimer, M. (2013). *Learner-centered teaching: Five key changes to practice*. John Wiley & Sons.
- Yala, P. O., & Wanjohi, W. C. (2011). Performance determinants of KCSE in mathematics in secondary schools in Nyamira division, Kenya. *Asian Social Science*, 7(20), 107–112.