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Original Article

Students' Perceptions about Quality Teaching at the Affiliated Colleges of University of Education, Lahore

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Abstract

This study examines students' perceptions of quality teaching at affiliated colleges of the University of Education Lahore, focusing on various dimensions such as subject matter knowledge, student growth and development, instructional planning and strategies, assessment techniques, and learning environments. Employing a post-positivist paradigm, the research utilizes a quantitative approach with data collected from 600 students via a structured questionnaire. The analysis reveals significant satisfaction among students regarding teachers' updated course material, effective communication, and enthusiasm. However, areas needing improvement include teachers' command over subjects, recognition of individual differences, fairness in grading, classroom management skills, and maintaining conducive learning environments. The study underscores the critical role of quality teaching in higher education and provides recommendations for enhancing teaching practices and institutional support, aiming to foster an effective learning environment in Pakistan's tertiary education sector.

Keywords: Quality teaching, Students' perceptions, Subject matter knowledge, UE affiliated colleges

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INTRODUCTION

Teaching is a profession that presents both challenges and immense rewards. The role of a teacher is pivotal in a student's learning journey, with the quality of teaching significantly influencing student outcomes (Lovat & Toomey, 2009). Teachers support students in enhancing their knowledge and skills, which are essential for their future endeavors. Through instructional guidance, students engage with the crucial aspects of the educational process (Suldo et al., 2009).

Teaching forms the fundamental component of education, involving the imparting of knowledge, fostering understanding, and developing skills. It creates a dynamic relationship between the teacher, the subject matter, and the student, forming a symbiotic connection central to the educational experience. According to (Biggs, 2001), "Teaching method is the guidance, direction, stimulation, and inspiration for learning." Teaching is a structured environment where learning activities and curriculum are systematically organized to achieve specific objectives. Morrison (1962) describes teaching as a close association between a more experienced individual and a less mature one to further the latter's education for societal development.

Poor-quality teaching is a significant factor contributing to educational shortcomings in Pakistan, exacerbated by inadequate instructions, infrastructure, facilities, and ineffective practices. This situation diminishes the overall demand for education and perpetuates substandard institutions. Enhancing teaching quality is crucial for improving institutions and fostering

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an effective teaching and learning environment in developing countries (Glewwe & Kremer, 2006).

This research focuses on understanding and enhancing the quality parameters defining educational culture in private affiliated colleges. A significant number of students pursue undergraduate studies in affiliated colleges of the University of Education across Punjab. Effective policymaking for tertiary education advancement in Pakistan requires a comprehensive analysis of quality teaching and the creation of a supportive environment for students within these institutions. Quality teaching should extend beyond the classroom, providing learners with high-caliber knowledge through effective instructional and professional practices. Teachers must design course content and employ effective methodologies to deliver quality education.

The study explores student perceptions of quality teaching in affiliated colleges of the University of Education, Lahore. This initiative aims to advance quality teaching-oriented tertiary education in Pakistan. To the best of my knowledge, no empirical study has systematically explored quality and effective teaching in institutions affiliated with public sector universities in Pakistan, particularly the University of Education, Lahore.

An Overview of Teaching Quality and Its Importance in Affiliated Institutions

Quality is a multifaceted term whose meaning depends on the context. It is often associated with excellence, error-free performance, purpose fulfillment, enhancement, and value for money (Oakland, 2014). In education, quality indicates satisfaction among users, implying that products or services that meet customer needs are of high quality. Teaching quality, therefore, is crucial in educational institutions, particularly in higher learning where it aligns with established norms and societal expectations(Fomba et al., 2023) .

Teaching involves a dynamic exchange between instructors and students, with the primary aim of knowledge transmission. Effective teaching is characterized by several aspects: conveying curriculum concepts, transferring knowledge, helping students perceive curriculum ideas, aiding learners in acquiring instructors' knowledge and skills, and supporting the improvement and modification of students' perceptions (Moats, 2020).

Quality teaching focuses on student achievements, encompassing academic and social outcomes. It requires adherence to instructional standards and effective pedagogical strategies such as diverse learning settings and active assessment of learning outcomes (Fauth et al., 2019). Quality teaching is essential for fostering positive societal changes, making educators influential agents of transformation.

In Pakistan, the Higher Education Commission (HEC) plays a critical role in enhancing educational quality, particularly in affiliated colleges. Despite the lack of unified quality standards for college affiliations, there is an ongoing effort to establish minimum benchmarks and improve tertiary education. Quality enhancement cells (QECs) ensure adherence to standards across public and private universities.

The HEC focuses on improving the capacity and capability of affiliated colleges to produce high-quality graduates. Faculty performance is pivotal, as student satisfaction with teaching methods significantly impacts the institution's development. Quality teaching in higher education is vital for a nation's competitiveness and overall societal well-being, requiring effective leadership and innovative approaches to challenges. Therefore, evaluating and shaping teacher effectiveness and teaching quality is essential for educational institutions.

LITERATURE REVIEW

Quality teaching is crucial for fostering successful learning outcomes. Current research has explored various dimensions of this complex notion. Hattie and Timperley (2007)identified feedback as a vital component of effective teaching, emphasizing the importance of timely and constructive feedback in enhancing student knowledge and performance. Darling-Hammond et al. (2017) stressed the role of teacher preparation programs in equipping educators with necessary skills, and advocating for ongoing professional development to keep teachers updated with evolving educational trends.

Ertmer et al. (2012) examined the impact of technology on high-quality instruction, highlighting the need for deliberate pedagogical methods for effective technology integration. Teachers must be adept at selecting and using appropriate technologies to enhance student engagement and learning. Vereijken and van der Rijst (2023) emphasized the importance of subject knowledge in high-quality instruction,

noting that teachers must thoroughly understand the subject matter to provide meaningful learning experiences.

Tuithof et al. (2023), expanded on (PCK), emphasizing the dynamic interplay between content knowledge and pedagogy. The study highlighted the need for teachers to develop a sophisticated understanding of how to teach specific subjects effectively, considering students' diverse needs and prior knowledge. In the context of inclusive education, Florian and Black-Hawkins (2011) investigated the significance of differentiation in effective teaching. They stressed the need for teachers to adapt their instruction to accommodate varied learning styles and abilities, creating an inclusive environment where all students can thrive. Tomlinson and Allan (2000) underscored the necessity of recognizing and addressing students' readiness, interests, and learning profiles through personalized teaching approaches.

Subject Matter Knowledge

Philosophical considerations and mindfulness strongly support the belief that a teacher's mastery of the subject matter significantly influences their ability to guide students in their learning journey. It is evident that without a solid foundation in content knowledge, teachers may struggle to deliver effective instruction (Gess-Newsome et al., 2019). When educators possess inaccurate or insufficient information or narrowly perceive knowledge, they risk imparting these shortcomings to their students. Subtly, a teacher's conceptualization of knowledge molds their teaching approach, influencing the types of questions posed, ideas reinforced, and tasks assigned. While initial attempts to empirically validate these assertions were unproductive and unsuccessful (Riegel et al., 2021), the argument stands that a teacher's grasp of the subject matter is pivotal in shaping the educational experience they provide.

Students' Growth and Development

Student growth and development are multifaceted processes crucial to the educational landscape. A more holistic approach has been stressed in educational research in recent years, acknowledging the close relationship between academic accomplishment and physical, social, and emotional well-being. Research that was published in the " Entrepreneurship Theory and Practice" (Burnette et al., 2020) found that encouraging students to participate in extracurricular activities and creating a happy learning environment both had a major beneficial impact on their overall development. Furthermore, studies published in the "Journal of Applied Developmental Psychology" (Mesler et al., 2021) emphasize the significance of customized learning approaches that meet the requirements of each student, encouraging academic success as well as motivation and self-efficacy. To create effective educational policies and practices that promote students' holistic growth and development, educators must have a thorough awareness of the most recent research results as they continue to investigate cutting-edge teaching approaches and adopt a student-centric worldview.

Instructional Planning and Strategies

The term IPS refers to the methodology for arranging, collecting, and organizing content, formulating activities for enhanced learning, and making decisions regarding content delivery and activity implementation (Darling-Hammond, 2021). According to the National Expert Norms for Mentors in Pakistan (NPSTP), IPS involves educators understanding and planning both short and long-term strategies to achieve educational goals. This involves promoting critical thinking, problem-solving, and student engagement through innovative resources. The IPS framework is built on three norms: Cognizance, Conduct, and Execution. Cognizance includes knowledge of curricular goals, developmental stages, and planning effective instructions. Conduct involves a commitment to achieving defined objectives and fostering collaborative learning. Execution encompasses identifying and structuring instructions, evaluating curricula, and linking student learning with personal growth. These standards and their markers provide a basis for measuring educational effectiveness.

Classroom practices demonstrate the true effectiveness of an educator's training, as highlighted by (Darling-Hammond et al., 2020). Effective instructional planning and strategies require sound professional education and training. Conversely, Hennessy et al. (2022) found a significant relationship between teacher behavior, practices, and performance in a technology-related program. Copur-Gencturk et al. (2021)also noted a strong correlation between teachers' understanding of scientific concepts, classroom performance, and student achievement, with teacher behavior playing a mediating role. However, public sector teachers often possess subject knowledge but lack lesson

planning and assessment techniques, resulting in unmet educational goals. Teachers who plan and strategize tend to achieve better student outcomes.

Assessment Techniques

The main purpose of classroom assessment is to develop a real picture of each student's learning. This material could be used as a response for learners and parents about their improvement and attainment (Yigletu et al., 2023). According to Mwema (2023), assessment has main three purposes: collecting evidence about students' previous knowledge and skills, providing real information to parents about student learning, and reporting student outcomes in current learning. However, Menéndez et al. (2019) stated that the major cause of student assessment in the classroom is assessing students' understanding of the course. Classroom appraisal helps in giving data and direction to understudies for arranging and dealing with the following stages in their learning. Appraisal for realizing access to what has been realized through homeroom guidance and what should be realized in the following stage. Appraisal systems received by college instructors influence the knowledge and execution of the learners (Pereira et al., 2022).

Learning Environments

Learning environments play a vital role in student learning in the classroom. Its impact on student learning through different aspects. A positive and healthy learning environment (teacher's supportive behavior, quality learning resources) facilitates the students but a negative environment such as (teacher's behavior, uncomfortable sitting, lack of learning resources) affects students' good learning. When teachers provide a physical learning environment, psychological learning environment, and good instructional environment then students learn better and they are achieving their goals easily. Students learn better and very fast when teachers provide a supportive, friendly, and quality learning environment in the classroom (Fraser, 2023). The learning environment is the name of "teachers have relevant knowledge about the course and program, clear learning goals for students and good feedback from teachers after students assessment, opportunities to build social skills for students and strategies to help students succeed"(Cayubit, 2022).

It has been acknowledged that quality teaching is complex and multidimensional in nature, making it difficult to measure. Teaching without quality cannot fulfill the needs of learners or society. Achieving required learning standards is impossible without quality teaching. Therefore, for a good mentor, the main aspects of quality teaching, such as excellent command of communication, clear content knowledge about the course, and effective planning for student learning, are crucial. A mentor with poor subject knowledge may create a detrimental learning environment, compromising the quality of teaching. In most cases, if the instructor lacks the strategies to deliver knowledge to the learner, it can result in a lack of interest and poor concentration, leading to low-quality education. It has been observed that poor and improper assessment techniques, along with a malfunctioning classroom environment, can contribute to low-quality education at an extreme level. Consequently, we can assert that quality teaching is a major component of quality education.

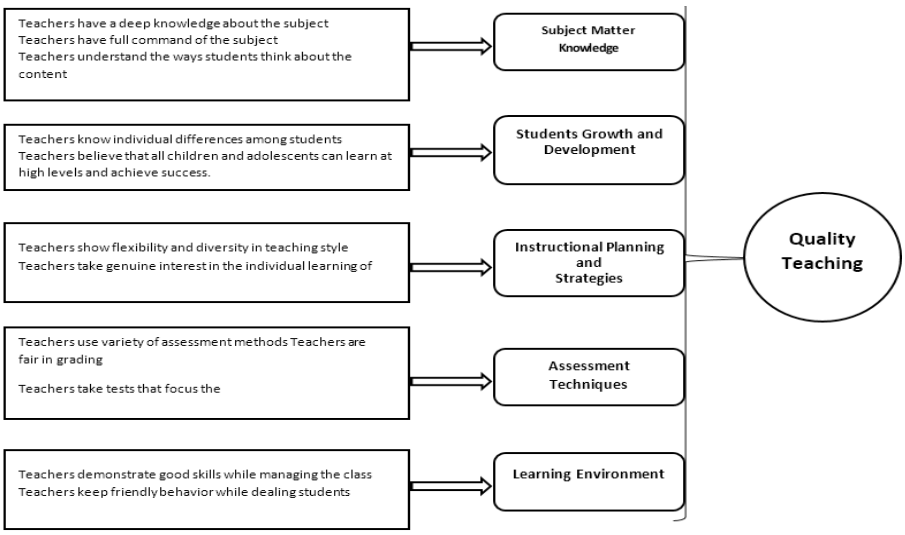

Fig. 1. Conceptual Frame-Work of the Study

METHODOLOGY

This study used a post-positivism philosophical paradigm therefore, this study followed a quantitative approach to answer the research question. To conduct the present research quantitative approach has been used as a strategy and data were collected through a survey questionnaire to answer the research questions. Keeping in view the objectives of the study. (Abu-Bader, 2021). My major research design of the study is comparative. This design is appropriate when the researcher is intended to compare two data sets on certain bases.

Population of the Study

A population is a bigger group of subjects from which a smaller group of individuals is selected through a certain sampling technique to collect data (Lohr, 2021). In the current study a group of 18,000 students who are studying in colleges affiliated with the University of Education, Lahore is selected as the population of the study. These affiliated colleges are situated in the central zone of Punjab.

Sampling Techniques

A cluster sampling technique was used for this study. 60 institutions (colleges) that have affiliation with a selected university i.e. University of Education, Lahore were divided into three Regan (North Punjab, Central Punjab, and South Punjab). The data were collected from available students at the central Punjab colleges (Lahore. Sheikhupura, Kasur). Six hundred students filled out survey instruments to participate in this study.

Instrument

The data was collected through a self-structured questionnaire. Responses of the participants were taken on a 5-point Likert scale. A structured questionnaire has been used to collect the data. The tool has 35 statements in total. Students' responses regarding the quality of education were sought on a 5-point Likert scale from strongly agreed to strongly disagree. An intermediate category "neutral/ no opinion" was also added to the list of options. Validity refers to the extent to which tools measure which it is supposed to measure ((Lohr, 2021)). This tool was evaluated by 3 experts to ensure its validity. Careful choices were made at every level of the study to make it valid. Reliability was ensured through Cronbach Alpha and the value of CBA was 0.956.

Data Collection

The researcher personally collected the data after obtaining permission from the concerned Principals and administrative officers of the affiliated colleges. The date and time for data collection were prearranged with these institutions. The study's questionnaire was distributed to all enrolled students in the University of Education's affiliated colleges in central Punjab. The survey was conducted from April to June. A total of 625 questionnaires were distributed, and 600 were returned. The researcher collected the data in a friendly manner, allowing respondents to complete the questionnaire without any time restrictions.

Data Analysis

The current study was quantitative in nature, utilizing a structured questionnaire for data collection. To analyze the data gathered from students studying in colleges affiliated with the University of Education, Lahore, in the central zone of Punjab, both descriptive and inferential statistics were employed. Descriptive statistics included the calculation of mean and standard deviation, while inferential statistics involved using an independent sample t-test to compare the means of two sample sets. These analyses were conducted using Version 21 of SPSS – the Statistical Package for Social Sciences.

Students' perceptions of quality teaching were assessed, with data carefully entered into SPSS to avoid typographical errors. For statistical analysis, data were coded as follows: Gender (Male-1, Female-2), Age (Less than 20 years-1, 20 and above-2), Program (Bachelor-1, Master-2), and Faculty (Science-1, Social Science-2). The response level was measured on a 5-point scale: Strongly Agree-1, Agree-2, Neutral-3, Disagree-4, and Strongly Disagree-5.

Descriptive Analysis

Table 2

Result of Demographic Analysis

	Demographic Variable	N	Percentage
Gender	Male	241	40.2
	Female	359	59.8
	Total	600	100.0

Age in years	<20	200	33.3
	20≥	400	66.7
	Total	600	100.0
Program	Bachelors	418	69.7
	Master	182	30.3
	Total	600	100.0
Faculty	Science	182	30.3
	Social Sciences	418	69.7
	Total	600	100.0

The descriptive analysis of respondents, as shown in Table 4.2, includes students from institutions affiliated with the University of Education. Among the 600 respondents, 241 (40%) were male, and 359 (60%) were female, indicating a higher percentage of female students. In terms of age, 200 (33.3%) were under 20 years old, and 400 (66.7%) were 20 years and above, showing a greater number of older students. Regarding academic programs, 418 (69.7%) were Bachelor students, and 182 (30.3%) were Master students, highlighting a higher proportion of Bachelor students. For fields of study, 182 (30.3%) were in Science, and 418 (69.7%) were in Social Sciences, reflecting a larger percentage of Social Sciences students.

The second part of the questionnaire consisted of five components regarding quality teaching. The first component addressed subject matter knowledge, the second focused on student growth and development, the third covered instructional planning and strategies, the fourth included assessment techniques, and the fifth addressed the learning environment. Standard Deviation (SD), Mean (M), Skewness, and Kurtosis were used to identify the strengths and weaknesses of quality teaching as perceived by students in the affiliated colleges of the University of Education, Lahore.

Table 3

Student Opinions on Quality Teaching: Subject Matter Knowledge

Statements	Mean	S.D	Skewness	Kurtosis
Teachers have deep knowledge about the Subject	1.868	1.160	1.377	0.974
Teachers can teach and communicate. content effectively	1.982	1.083	1.302	1.167
Teachers know better about the course. taught in the classroom	1.940	1.134	1.229	0.701
Teachers have authentic knowledge to improve the student's study gape	1.960	1.060	1.227	1.012
Teachers can evaluate the pre- requisite knowledge of the students	1.968	1.119	1.209	0.710
Teachers are able to identify students'. common misconceptions	1.957	1.124	1.225	0.768
Teachers have full command of the subject	1.918	1.112	1.228	0.702
Teachers show strong enthusiasm for the Subject	2.017	1.166	1.167	0.521
Teachers motivate for learning & encourages to consult library/internet resources	1.938	1.158	1.235	0.648
Teachers provide additional material apart from the handouts	1.977	1.099	1.129	0.535
Teachers teach updated course material in Class	1.982	1.166	1.144	0.412
Average Mean	1.953			

Table-3 shows that most students were satisfied with teachers teaching updated course material (Mean = 1.98) and effectively communicating content (Mean = 1.98). Students also appreciated teachers' enthusiasm for the subject (Mean = 2.01) and their provision of additional materials beyond handouts (Mean = 1.97). However, satisfaction was lower for teachers' full command of the subject (Mean = 1.91) and understanding of the material (Mean = 1.94). Teachers' deep knowledge of the subject and ability to evaluate students' prerequisite knowledge both had a mean score of 1.96. Students' opinions were near average for teachers' course knowledge (Mean = 1.95) and their ability to address study gaps (Mean = 1.96).

Table 4

Student Opinions on Quality Teaching: Growth and Development

Statements	Mean	S.D	Skewness	kurtosis
Teachers know individual differences among Students	1.865	1.444	1.306	0.795
Teachers know all processes and methods how to help the students and how to solve the student problems related to the classroom and course.	2.005	1.127	1.169	0.592
Teachers have to believe that all students can learn and understand very well and can get the quality result in any field	1.940	1.134	1.208	0.635
Teachers have believed in student talent and abilities to perform better for society	1.947	1.106	1.228	0.840
Teachers appreciate the students in different ways on the best outcomes in the classroom	1.883	1.156	1.382	1.052
Average Mean	1.928			

Table -4 shows that most students were satisfied with the quality teaching factor related to student growth and development. Teachers were noted for knowing how to help students and solve classroom and course-related problems (M = 2.00). They believed all students could learn well and achieve quality results (M = 1.94), and had confidence in students' talents and abilities to contribute to society (M = 1.94). However, students were less satisfied with teachers' recognition of individual differences (M = 1.86) and appreciation of students' achievements in the classroom (M = 1.88).

Table 5

Student Opinions on Quality Teaching: Instructional Planning and Strategies

Statements	**Mean**	**S.D**	**Skewness**	**Kurtosis**
Teachers show flexibility and diversity in teaching style	1.770	1.004	1.396	1.411
Teachers make their teaching interesting with the use of humor	1.899	1.072	1.320	1.182
Teachers take a genuine interest in the individual learning of students	1.915	1.077	1.256	1.006
Teachers have the knowledge and skills to use the latest technologies related to the classroom and they use these technologies for student learning	1.918	1.044	1.126	0.670
Teachers have proper knowledge about the course and they explain to students very friendly and carefully	1.762	1.031	1.590	0.2109
Where needed teachers explain the concept in national language	1.980	1.145	1.196	0.601
Average Mean	1.874			

Table-5 shows most of the students were satisfied with Where needed teachers explain the concept in the national language (Mean =1.98) and Teachers have knowledge and skills to use the latest technologies related to the classroom and they use these technologies for student learning (Mean=1.91). Students were also satisfied about Teachers take a genuine interest in the individual learning of students (Mean=1.91) and Teachers make their teaching interesting with the use of humor (Mean=1.89). Teachers create a learning environment for students in the classroom (Mean=1.77) Teachers have proper knowledge about the course and they explain to students very friendly and carefully (Mean =1.76).

Table 6

Student Opinions on Quality Teaching: Assessment Techniques

Statements	Mean	S.D	Skewness	Kurtosis
Teachers use a variety of assessment methods	1.838	1.088	1.377	1.187
Teachers are fair in grading	1.987	1.113	1.200	0.746
Teachers are concerned about the student's Progress	1.978	1.125	1.206	0.712
Teachers take tests that focus the understanding of students	1.997	1.086	1.075	0.506
Teachers provide feedback on quizzes/assignments promptly	2.008	1.152	1.167	0.561
Teachers follow the schedule of quizzes/assignments strictly	2.027	1.147	1.101	0.398
Teachers provide guidance & counseling properly and on time regarding academic issues based on assessment	1.988	1.129	1.107	0.406
Average mean	1.971			

Table-6 shows the results about assessment techniques; overall students have shown satisfaction with Teachers following the schedule of quizzes/ assignments strictly (Mean =2.02). Students were most satisfied with Teachers providing feedback on quizzes/assignments promptly (Mean =2.00) as compared to other statements Teachers take tests that focus on the understanding of students. Students were least satisfied Teachers are fair in grading (Mean =1.98) and Teachers provide guidance & counseling properly and on time regarding academic issues based on assessment (Mean =1.89). Students were not satisfied with the Teacher's fair grading (Mean =1.83).

Table 7

Student Opinions on Quality Teaching: Learning Environment

Statements	Mean	S.D	Skewness	Kurtosis
Teachers appreciate the students taking part in different discussions and activities	1.892	1.205	1.352	0.803
Teachers are very active in conducting the class for students in time	1.878	1.039	1.322	1.326
Teachers use knowledgeable presentations in classroom related to the subject for student learning	1.903	1.107	1.273	0.936
Teachers demonstrate good skills while managing the class	1.878	1.081	1.389	1.316
Teachers keep friendly behavior while dealing Students	1.908	1.079	1.254	0.955
Teachers maintain a classroom environment that is conducive to learning	1.822	1.012	1.419	1.727
Average mean	1.880			

Table 7 describes most of the students were satisfied that Teachers use knowledgeable presentations in the classroom related to the subject for student learning (Mean =1.90), Teachers keep friendly behavior while dealing with students (Mean=1.90) and Teachers appreciate the students taking part in different discussions and activities (Mean=1.89). However, the least satisfaction was shown regarding the Teacher demonstrating good skills while managing the class (Mean=1.87) and Teachers being very active in conducting the class for students on time (Mean=1.87). Most of the students were not satisfied that Teachers maintain a classroom environment that is conducive to learning (Mean=1.82).

Inferential Statics Results

Table 8

Quality Teaching Comparison on the basis of Gender (Male vs Female)

Factors	Gender	N	Mean	S.D	t	Sig
Subject Matter Knowledge	Male	241	2.351	0.974	1.836	0.067
	Female	359	1.901	0.799		
Student Growth and Development	Male	241	2.009	1.033	1.759	0.079
	Female	359	1.928	0.846		
Instructional Planning and Strategies	Male	241	1.904	0.930	0.756	0.450
	Female	359	1.854	0.692		
Assessment Techniques	Male	241	2.018	1.022	0.957	0.339
	Female	359	1.946	0.812		
Learning Environment	Male	241	1.949	0.932	1.702	0.890
	Female	359	1.834	0.729		

The table compares male and female respondents across five factors related to teaching effectiveness: subject matter knowledge, student growth and development, instructional planning and strategies, assessment techniques, and learning environment. Males consistently have slightly higher mean scores than females in all factors, with subject matter knowledge (mean: 2.351 vs. 1.901, t=1.836, p=0.067) showing the largest difference, though it is not statistically significant. The p-values for all factors (0.067, 0.079, 0.450, 0.339, 0.890) are above the conventional threshold of 0.05, indicating that none of the differences between male and female

respondents are statistically significant. Thus, the data suggests no significant gender differences in perceptions of teaching effectiveness across these factors.

Table 9

Quality Teaching Comparison on the basis of Age (Less than 20 years' vs 20 years and above)

Factors	Age	N	Mean	S.D	t	Sig
Subject Matter Knowledge	Less than 20 years	200	1.832	0.755	-2.441	0.015
	20 years and above	400	2.017	0.925		
Student Growth and Development	Less than 20 years	200	1.811	0.827	-2.192	0.029
	20 years and above	400	1.986	0.969		
Instructional Planning and Strategies	Less than 20 years	200	1.750	0.633	-2.710	0.007
	20 years and above	400	1.936	0.860		
Assessment Techniques	Less than 20 years	200	1.920	0.838	-1.052	0.293
	20 years and above	400	2.002	0.932		
Learning Environment	Less than 20 years	200	1.763	0.665	-2.488	0.013
	20 years and above	400	1.939	0.879		

The table compares respondents under 20 years old and those 20 years and older across five factors of teaching effectiveness: subject matter knowledge, student growth and development, instructional planning and strategies, assessment techniques, and learning environment. For subject matter knowledge (t=-2.441, p=0.015), student growth and development (t=-2.192, p=0.029), instructional planning and strategies (t=-2.710, p=0.007), and learning environment (t=-2.488, p=0.013), those 20 years and older have significantly higher mean scores compared to the younger group, indicating better perceptions in these areas. The assessment techniques factor shows no significant difference (t=-1.052, p=0.293). Overall, older respondents perceive themselves as more effective in several teaching domains compared to their younger counterparts, except for assessment techniques, where perceptions are similar.

Table 10

Quality Teaching Comparison on the basis of Faculty (Science vs Social Sciences)

Factors	Faculty	N	Mean	S.D	t	Sig
Subject Matter Knowledge	Science	187	1.682	0.697	-5.744*	0.000
	Social Sciences	417	2.075	0.919		
Student Growth and Development	Science	187	1.635	0.684	-6.021*	0.000
	Social Sciences	417	2.057	0.989		
Instructional Planning and Strategies	Science	187	1.641	0.557	-5.680*	0.000
	Social Sciences	417	1.976	0.862		
Assessment Techniques	Science	187	1.782	0.792	-3.729*	0.001
	Social Sciences	417	2.059	0.934		
Learning Environment	Science	187	1.613	0.493	-6.725*	0.000
	Social Sciences	417	1.998	0.901		

The table compares faculty members from science and social sciences across five factors of teaching effectiveness: subject matter knowledge, student growth and development, instructional planning and strategies, assessment techniques, and learning environment. Social sciences faculty have significantly higher mean scores compared to science faculty in all factors: subject matter knowledge (t=-5.744, p=0.000), student growth and development (t=-6.021, p=0.000), instructional planning and strategies (t=-5.680, p=0.000), assessment techniques (t=-3.729, p=0.001), and learning environment (t=-6.725, p=0.000). These results indicate that social sciences faculty perceive themselves as more effective than their science counterparts in all measured domains of teaching effectiveness, with all differences being statistically significant at the 0.05 level.

Table 11

Quality Teaching Comparison on the basis of Program (Bachelors vs Master)

Factors	Program	N	Mean	S.D	t	Sig
Subject Matter Knowledge	Bachelors	420	2.027	0.900	-3.266*	0.002
	Master	180	1.787	0.792		
Student Growth and Development	Bachelors	420	1.996	0.970	-2.767*	0.006
	Master	180	1.769	0.798		
Instructional Planning and Strategies	Bachelors	420	1.933	0.854	-2.791*	0.005
	Master	180	1.736	0.620		
Assessment Techniques	Bachelors	420	2.064	0.966	4.263*	0.000
	Master	180	1.767	0.689		
Learning Environment	Bachelors	420	1.998	0.900	6.917*	0.000
	Master	180	1.606	0.482		

The table compares bachelor's and master's program respondents across five factors of teaching effectiveness: subject matter knowledge, student growth and development, instructional planning and strategies, assessment techniques, and learning environment. Bachelor's program respondents have significantly higher mean scores than master's program respondents in all factors: subject matter knowledge (t=-3.266, p=0.002), student growth and development (t=-2.767, p=0.006), instructional planning and strategies (t=-2.791, p=0.005), assessment techniques (t=4.263, p=0.000), and learning environment (t=6.917, p=0.000). These results indicate that bachelor's program respondents perceive themselves as more effective across all measured domains of teaching effectiveness, with all differences being statistically significant at the 0.05 level.

RESULTS & FINDINGS

Quality of teaching is becoming more effective and essential in advanced teaching due to the demand of the public for higher education qualifications and the competition between institutions to attract students, the firsthand consumers of higher education (Kember, Leung, & Kwan, 2002).

Gender-Based Perceptions of Quality Teaching: T-test Findings

Results indicate that for all factors of quality teaching (Subject Matter Knowledge, Student Growth and Development, Instructional Planning and Strategies, Assessment Techniques, and Learning Environment) in affiliated colleges with UE, the t-test values were not statistically significant (p-values > 0.05). Therefore, the null hypotheses that there are no differences in perceptions between male and female students for these factors are accepted, indicating that the differences in mean perceptions between genders are statistically insignificant.

Age-Based T-test Analysis of Students' Teaching Perceptions

Results indicate that the t-test values and associated p-values for the independent samples in each case are greater than the pre-set significance value of 0.05. Specifically, the t-test values are -2.441, -2.192, -2.710, -1.052, and -2.488 with p-values of 0.015, 0.029, 0.007, 0.293, and 0.013 respectively. As a result, the null hypothesis, stating that there is no difference in students' perceptions of quality teaching factors (Subject Matter Knowledge, Student Growth and Development, Instructional Planning and Strategies, Assessment Techniques, and Learning Environment) in the affiliated colleges with UE based on age, is accepted for all cases.

T-test Findings on Bachelor's vs. Master's Student Perceptions of Quality Teaching

Results show a significant difference in perceptions of 'Subject Matter Knowledge' based on the program (t-test = 3.266, p = 0.002), rejecting the null hypothesis. No significant difference in 'Student Growth and Development' (t-test = 2.767, p = 0.006), accepting the null hypothesis. Similarly indicates no significant difference in 'Instructional Planning and Strategies' perceptions (t-test = 2.791, p = 0.005). Conversely, reveals a significant difference in 'Assessment Techniques' perceptions (t-test = 4.263, p = 0.000), rejecting the null hypothesis. Table 4.22 also shows a significant difference in 'Learning Environment' perceptions (t-test = 6.917, p = 0.000), rejecting the null hypothesis.

Comparative t-Test Analysis of Quality Teaching Perceptions: Science vs. Social Sciences

The results from the independent samples t-tests show that the null hypotheses, which posited differences in students' perceptions of various aspects of quality teaching based on faculty (science and social sciences), are rejected for all factors analyzed. Specifically, the t-test values are -5.744, -6.021, -5.680, -3.729, and -6.725, with associated p-values of 0.000 for each, all of which are less than the significance level of 0.05. This indicates that there are statistically significant differences in the perceptions of male and female students regarding the factors of 'Subject Matter Knowledge,' 'Student Growth and Development,' 'Instructional Planning and Strategies,' 'Assessment Techniques,' and 'Learning Environment' related to quality teaching in affiliated colleges with UE. Thus, the alternative hypothesis, suggesting no difference in perceptions based on faculty (Science and social sciences), is accepted for each factor.

CONCLUSION

Overall, students were satisfied with various aspects of quality teaching, including teachers' ability to teach updated course material effectively, their enthusiasm for the subject, and the provision of additional materials. Students appreciated teachers' ability to help with classroom and course-related problems, believed in students' potential, and used humor and national language to explain concepts. However, dissatisfaction was noted in areas such as teachers' command over the subject, understanding individual differences among students, fairness in grading, classroom management skills, and maintaining a conducive learning environment. Students felt that while teachers were knowledgeable and supportive, improvements were needed in these specific areas to enhance the overall learning experience.

Implementations and Recommendations for Future Research

The study presents several implementations for enhancing the quality of teaching and learning at the affiliated colleges of the University of Education (UE). Firstly, it suggests that these colleges have significant potential to improve both teaching and student skills through better utilization of available space and resources. It is recommended that course preparation and delivery be further refined to boost student learning. Introducing challenging assignments that involve fieldwork could also enhance learning outcomes. A robust feedback system on student performance should be implemented to support ongoing improvement. Additionally, colleges should support teachers in enhancing their knowledge, skills, and instructional strategies. Assessments should go beyond mere memory recall to evaluate coursework and research more comprehensively. Colleges must adhere to quality standards set by accrediting bodies to ensure high-quality teaching. Lastly, the University of Education should regularly offer professional development courses for faculty to advance their teaching and academic skills.

The researcher recommends several avenues for future research. Firstly, similar studies should be conducted using data from the University of Education, including its divisions and campuses. Additionally, there is a need to compare the affiliated colleges of various public sector universities to evaluate differences in the quality of teaching. Furthermore, a comparative analysis of newly established colleges and older institutions affiliated with the University of Education, Lahore, would provide valuable insights into variations in educational quality.

Competing Interests

The authors did not declare any competing interest.

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