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National Qualifications Frameworks in Teacher Education: Faculty Perspectives on Curriculum Alignment and Quality Assurance

Mansoor Ahmad

mansoorahmad319@gmail.com

Superior University

Prof. Dr. Muhammad Sarwar

Superior University

Najeeba Javed

Superior University

Muhammad Arif

Superior University

Dr. Muhammad Siddique

Superior University

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Abstract

The National Qualifications Framework has emerged as an important mechanism for strengthening quality assurance and promoting outcome-based education in higher education. However, limited qualitative evidence exists regarding faculty experiences of National Qualifications Framework implementation in teacher education programs. This study explored faculty perspectives on the implementation of the National Qualifications Framework in Bachelor of Science Education programs in Punjab, Pakistan. A qualitative research design was employed, and data were collected through semi-structured interviews with 15 faculty members selected through purposive sampling. The data were analyzed using thematic analysis. The findings revealed that faculty members generally perceived the National Qualifications Framework as a valuable framework for improving curriculum alignment, learning outcome achievement, and educational quality. Participants reported increasing use of outcome-based teaching practices, curriculum mapping, and continuous assessment strategies to support learning outcomes. However, implementation was constrained by limited awareness, insufficient professional development opportunities, resource limitations, heavy workloads, and inadequate institutional support. The study concluded that effective implementation requires sustained faculty capacity building, institutional commitment, and continuous quality assurance mechanisms. The findings contribute to the international discourse on qualification framework implementation and provide practical implications for strengthening teacher education and enhancing quality assurance practices in higher education, particularly in developing-country contexts.

Introduction

Higher education systems worldwide are increasingly emphasizing educational quality, accountability, graduate employability, and competency development in response to rapidly changing social, economic, and technological demands. As a result, Outcome Based Education (OBE) has emerged as a prominent approach for enhancing student learning and ensuring that graduates acquire the knowledge, skills, and competencies required in contemporary societies and labor markets. OBE promotes constructive alignment among learning outcomes, curriculum design, teaching practices, and assessment processes, thereby supporting continuous quality improvement and institutional effectiveness (Agrawal & Sharma, 2025).

Parallel to the expansion of OBE, National Qualifications Frameworks (NQFs) have become important instruments for higher education reform across many countries. Qualification frameworks provide structured descriptions of learning outcomes and competency expectations across qualification levels, facilitating curriculum alignment, quality assurance, transparency, qualification comparability, and learner mobility (Eteris, 2024; Malik et al., 2025). Studies conducted in diverse higher education contexts have suggested that qualification frameworks can strengthen curriculum coherence, improve graduate preparedness, and support institutional accountability and quality enhancement initiatives(Ali et al., 2025).

Teacher education represents a particularly important area for qualification framework implementation because teacher preparation programs play a critical role in developing future educators who contribute to educational quality and student achievement. Internationally, quality assurance initiatives in teacher education have increasingly emphasized outcome-based curricula, competency-based assessment, reflective practice, and continuous program evaluation as mechanisms for improving professional preparation and educational effectiveness (Ehsan & Ajmal, 2026). Within this context, qualification frameworks provide a useful structure for aligning program objectives, learning outcomes, teaching practices, and assessment systems.

Despite growing international adoption of qualification frameworks, evidence regarding their implementation at the institutional level remains limited. Existing research has largely focused on policy development, framework design, and outcome evaluation, while comparatively less attention has been given to how faculty members experience and enact qualification framework requirements in their day-to-day teaching practices. Understanding faculty perspectives is particularly important because successful implementation depends on academic staff who translate policy expectations into curriculum design, instructional practices, assessment strategies, and quality assurance processes (Feroz & Lingelbach, 2026).

Pakistan provides a relevant context for examining these issues. The Higher Education Commission introduced the National Qualifications Framework to strengthen quality assurance and align higher education programs with national and international standards. However, limited qualitative research has explored how faculty members experience the implementation of NQF requirements within teacher education programs. Addressing this gap can contribute not only to understanding implementation within Pakistan but also to broader international discussions concerning qualification frameworks, outcome-based education, and quality assurance in higher education (Igiebor, 2026).

Therefore, this study explored faculty perspectives on implementing the National Qualifications Framework in BS Education programs in Punjab, Pakistan. Specifically, the study examined faculty perceptions of learning outcome achievement, investigated institutional practices and challenges influencing implementation, and identified strategies for strengthening curriculum alignment and educational quality. By examining faculty experiences within a developing country context, the study contributes to the international literature on qualification framework implementation and offers insights for higher education institutions seeking to strengthen outcome-based teacher education and quality assurance practices (Isiaka et al., 2026).

Literature Review

Outcome Based Education in Higher Education

Outcome Based Education (OBE) has emerged as a major reform movement in higher education worldwide in response to increasing demands for educational quality, accountability, graduate employability, and competency development. Unlike traditional content-oriented approaches that

emphasize curriculum coverage, OBE focuses on the knowledge, skills, competencies, and professional attributes that learners are expected to demonstrate upon completion of an academic program (Choo et al., 2024). By emphasizing clearly defined learning outcomes, OBE promotes student centered learning and encourages institutions to align curriculum content, instructional practices, and assessment methods with intended educational goals (Morse et al., 2025).

The growing adoption of OBE has been influenced by broader international trends emphasizing quality assurance, performance measurement, and evidence based educational improvement. Studies have reported that outcome-based approaches contribute to improved curriculum coherence, critical thinking skills, problem solving abilities, graduate preparedness, and employability outcomes. Through systematic alignment of learning outcomes and assessment practices, OBE provides institutions with mechanisms for monitoring student achievement and supporting continuous quality enhancement.(Mulà & Tilbury, 2025).

Despite its potential benefits, implementation of OBE remains challenging across many higher education systems. Previous research has identified barriers including inadequate faculty preparedness, limited understanding of learning outcomes, weak curriculum mapping practices, resistance to change, and difficulties in developing valid competency-based assessments. These findings suggest that successful implementation requires sustained institutional support, professional development opportunities, and effective quality assurance mechanisms (Muller, 2025).

National Qualifications Frameworks and Higher Education Reform

National Qualifications Frameworks (NQFs) have become increasingly important instruments for higher education reform and quality assurance. NQFs provide structured classifications of qualifications based on levels of knowledge, skills, and competencies, thereby establishing common standards for educational achievement and progression (Eteris, 2024). Through clearly articulated learning outcome descriptors, qualification frameworks facilitate transparency, comparability of qualifications, and alignment between educational programs and labor market expectations.

Qualification frameworks have been widely adopted across diverse higher education systems, including those in the United Kingdom, Australia, New Zealand, South Africa, Malaysia, and several European countries. Their implementation has been associated with improved curriculum coherence, greater educational transparency, enhanced learner mobility, and strengthened quality assurance processes. Research has also demonstrated that qualification frameworks support graduate employability by ensuring that educational programs are aligned with professional and societal needs (Nguyen et al., 2026).

Beyond their regulatory function, qualification frameworks serve as mechanisms for promoting educational innovation and institutional accountability. According to Panait (2024) reported that qualification-based systems contribute to more systematic approaches to curriculum design, assessment, and quality monitoring. However, studies have consistently emphasized that the

effectiveness of qualification frameworks depends not only on policy design but also on successful implementation within educational institutions. Without meaningful engagement from academic staff and institutional leadership, qualification frameworks may become compliance driven exercises rather than mechanisms for educational improvement.

Faculty Engagement in Qualification Framework Implementation

Faculty members play a critical role in the implementation of qualification frameworks because they are responsible for translating policy requirements into educational practice. Their responsibilities include curriculum development, instructional delivery, assessment design, learning outcome evaluation, and participation in quality assurance activities. As a result, faculty engagement has been identified as a key determinant of successful implementation of outcome based educational reforms (Pedró, 2025).

Research indicates that faculty awareness, professional competence, and attitudes toward reform significantly influence implementation effectiveness. Academic staff who receive appropriate professional development opportunities demonstrate greater confidence in developing learning outcomes, mapping curricula, designing competency-based assessments, and implementing student centered teaching practices. Such capabilities are essential for ensuring that qualification framework standards are meaningfully integrated into educational programs(Raza et al., 2026).

Conversely, limited awareness and insufficient professional development opportunities may hinder implementation efforts. Faculty members often report difficulties in translating broad qualification framework requirements into measurable learning outcomes and assessment indicators. Consequently, the literature consistently highlights faculty capacity building as an essential component of successful qualification framework implementation (Triyanto, 2026).

Curriculum Alignment and Learning Outcome Achievement

Curriculum alignment represents a central principle of both OBE and qualification framework implementation. Drawing on the concept of constructive alignment, curriculum alignment refers to the systematic relationship among intended learning outcomes, curriculum content, teaching activities, and assessment practices. Effective alignment ensures that all components of the educational process contribute to the achievement of intended competencies and learning outcomes (Malik et al., 2025).

Recent studies have emphasized the importance of aligning Program Learning Outcomes, Course Learning Outcomes, and Student Learning Outcomes with qualification framework standards. Effective alignment contributes to improved assessment validity, enhanced student learning experiences, greater curriculum coherence, and more accurate evaluation of educational effectiveness. It also supports institutional quality assurance processes by providing evidence regarding the achievement of intended educational outcomes(Keo et al., 2025).

Despite its recognized importance, curriculum alignment remains a significant challenge within many higher education institutions. Research has identified difficulties in curriculum mapping, outcome

specification, assessment design, and faculty understanding of alignment principles. These challenges may limit the effectiveness of qualification framework implementation and reduce the extent to which intended learning outcomes are achieved (Jameel, 2026).

Institutional Conditions Supporting Educational Reform

The successful implementation of educational reforms is influenced by institutional conditions and organizational support mechanisms. Research examining OBE and qualification framework implementation has identified factors such as leadership commitment, resource availability, professional development opportunities, technological infrastructure, and quality assurance systems as critical determinants of implementation success (Ahmed et al., 2025).

Institutional culture also plays an important role in shaping faculty engagement with reform initiatives. Universities that promote collaboration, innovation, and continuous improvement are generally more successful in implementing outcome based educational practices. In contrast, institutions characterized by limited resources, weak governance structures, and inadequate support systems often experience difficulties in sustaining educational reforms(Alhamad & Hayat, 2025).

Studies have consistently emphasized that successful implementation requires coordinated efforts among policymakers, institutional leaders, quality assurance units, and academic staff. Long term commitment to professional development and organizational learning is therefore essential for achieving the intended benefits of qualification framework reforms.

Research Gap

The growing adoption of Outcome Based Education and National Qualifications Frameworks has generated substantial interest in curriculum alignment, competency development, and quality assurance across higher education systems worldwide. However, much of the existing literature has focused on policy development, framework design, accreditation processes, and quantitative evaluations of educational outcomes. Comparatively less attention has been given to understanding how faculty members experience and enact qualification framework requirements within their day-to-day academic practice.

The available literature also provides limited insight into qualification framework implementation within teacher education programs. Although teacher education plays a critical role in preparing future educators and strengthening educational quality, relatively few studies have explored how faculty members interpret qualification framework requirements, align curricula with learning outcomes, and address implementation challenges in this context. Furthermore, most evidence originates from developed higher education systems, while comparatively limited qualitative research has examined implementation experiences in developing countries.

In Pakistan, the Higher Education Commission introduced the National Qualifications Framework to strengthen quality assurance and align higher education programs with national and international

standards. Despite increasing emphasis on outcome-based education and qualification framework implementation, limited qualitative evidence exists regarding faculty experiences within BS Education programs. Little is known about how faculty members integrate qualification framework requirements into curriculum design, teaching practices, assessment strategies, and quality assurance processes.

Addressing this gap contributes to both national and international scholarship by providing insight into how qualification framework reforms are experienced and implemented within teacher education programs. Understanding faculty perspectives may inform policy development, institutional planning, and professional development initiatives while contributing to broader discussions concerning curriculum alignment, learning outcome achievement, and quality assurance in higher education.

Theoretical Framework

This study was grounded in Constructive Alignment Theory developed by Biggs and Tang (2011). The theory proposes that effective learning occurs when intended learning outcomes, teaching and learning activities, and assessment practices are systematically aligned. Constructive alignment emphasizes that students construct knowledge through meaningful learning experiences, while educators design instructional environments that facilitate achievement of desired learning outcomes.

The theory provides a strong foundation for Outcome-Based Education because both approaches focus on competency development, learning outcome achievement, and continuous quality improvement. Within the context of the National Qualifications Framework, constructive alignment promotes coherence among Program Learning Outcomes (PLOs), Course Learning Outcomes (CLOs), Student Learning Outcomes (SLOs), teaching strategies, and assessment methods. Effective alignment among these components enhances curriculum quality, supports competency development, and strengthens quality assurance practices.

The application of Constructive Alignment Theory is particularly relevant to BS Education programs because implementation of NQF standards requires systematic alignment between curriculum design, instructional practices, assessment strategies, and expected graduate competencies. Therefore, the theory served as the analytical lens for understanding faculty experiences related to curriculum alignment, teaching practices, assessment processes, and learning outcome achievement (Eteris, 2024).

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Conceptual Framework

The conceptual framework of this study was developed from Constructive Alignment Theory, the Outcome-Based Education framework, and the National Qualifications Framework. The framework assumes that NQF standards guide the development of Program Learning Outcomes (PLOs), Course Learning Outcomes (CLOs), and Student Learning Outcomes (SLOs). These learning outcomes influence

teaching practices and assessment strategies, which collectively contribute to learning outcome achievement and overall quality assurance.

The framework further assumes that successful implementation of NQF standards is influenced by faculty awareness, institutional support, and professional development opportunities. These moderating factors affect the extent to which faculty members can effectively align curriculum, teaching practices, and assessment methods with intended learning outcomes. Consequently, the framework guided data collection and analysis by examining how faculty members perceived and implemented these interconnected components within BS Education programs.

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Methodology

Research Design

This study employed a qualitative research design to explore faculty perspectives on the implementation of the National Qualifications Framework (NQF) in BS Education programs. Qualitative research is appropriate for examining participants' experiences, perceptions, and interpretations of educational phenomena within their natural settings (Creswell & Poth, 2024). An exploratory qualitative approach was adopted to gain an in-depth understanding of faculty experiences related to curriculum alignment, teaching practices, assessment strategies, institutional challenges, and learning outcome achievement within the framework of NQF implementation (Creswell & Creswell, 2017).

Research Paradigm

The study was guided by the interpretivist paradigm, which assumes that reality is socially constructed and that individuals develop meanings through their experiences and interactions (Johnson & Christensen, 2024). This paradigm was considered appropriate because the study aimed to understand faculty members' subjective experiences and interpretations regarding NQF implementation rather than testing predetermined hypotheses. The interpretivist perspective enabled the exploration of multiple viewpoints and contextual factors influencing implementation within teacher education programs**.**

Participants and Sampling

The participants comprised faculty members teaching in BS Education programs at selected public and private universities in Punjab, Pakistan. Participants were selected using purposive sampling because they possessed direct experience in curriculum development, teaching, assessment, and implementation of outcome-based education practices. Purposive sampling is widely recommended in qualitative research for selecting information-rich participants who can provide relevant insights into the phenomenon under investigation (Eteris, 2024; Mackintosh, 2026).

Eligibility criteria included teaching experience within BS Education programs and involvement in curriculum planning, Program Learning Outcomes (PLOs), Course Learning Outcomes (CLOs), assessment practices, or quality assurance processes. Data collection continued until data saturation was achieved, meaning that no new themes or meaningful insights emerged from additional interviews (Qureshi & Kalsoom, 2022).

Data Collection

Data were collected through semi-structured interviews, which provided flexibility for participants to share their experiences while ensuring consistency across interviews. Semi-structured interviews are particularly effective for exploring complex educational issues and generating rich qualitative data (Muhammad, 2026).

Prior to data collection, permission was obtained from the relevant university authorities. Participants were informed about the purpose of the study, confidentiality procedures, and their right to withdraw from participation at any stage. Interviews were conducted at mutually convenient times and locations. With participants' consent, interviews were audio-recorded to ensure accuracy and completeness of data collection. Field notes were also maintained to document contextual observations and emerging reflections throughout the interview process.

Interview Protocol Development

The interview protocol was developed based on the study objectives, existing literature on outcome-based education and National Qualifications Framework implementation, and the conceptual framework of the study. The protocol consisted of open-ended questions addressing faculty awareness of NQF, curriculum alignment, teaching and learning practices, assessment strategies, institutional support, implementation challenges, and recommendations for improvement.

To enhance content relevance and clarity, the interview protocol was reviewed by experts in educational research and teacher education. Minor revisions were made based on expert feedback. Pilot interviews were subsequently conducted to assess the effectiveness of the interview questions and ensure that they elicited detailed and meaningful responses from participants.

Data Analysis

The collected data were analyzed using thematic analysis following the procedures proposed by (Johnson & Christensen, 2024). Thematic analysis is a widely used qualitative data analysis technique that enables researchers to identify, analyze, and interpret recurring patterns within qualitative data.

Interview recordings were transcribed verbatim and reviewed multiple times to ensure familiarity with the data. Initial codes were generated from meaningful statements and subsequently grouped into categories based on similarities and relationships. These categories were then refined into broader themes representing faculty experiences and perceptions regarding NQF implementation. The iterative

nature of thematic analysis facilitated systematic interpretation of the data and enabled identification of patterns related to awareness, curriculum alignment, teaching practices, assessment methods, institutional challenges, and improvement strategies.

Trustworthiness of the Study

To ensure rigor and trustworthiness, the study followed the criteria of credibility, transferability, dependability, and confirmability proposed by Lincoln and Guba and supported by contemporary qualitative research guidelines (Creswell & Creswell, 2017).

Credibility

Credibility refers to the confidence placed in the accuracy and authenticity of the findings. Credibility was enhanced through prolonged engagement with participants during interviews and member checking. Summaries of interview interpretations were shared with selected participants to verify the accuracy of the findings. The use of semi-structured interviews further enabled in-depth exploration of participants' experiences and perspectives.

Transferability

Transferability refers to the extent to which findings may be applicable to similar contexts. To facilitate transferability, detailed descriptions of the research setting, participant characteristics, data collection procedures, and institutional context were provided. Such rich descriptions allow readers to assess the applicability of findings to other higher education environments.

Dependability

Dependability concerns the consistency and stability of research findings. To enhance dependability, an audit trail was maintained throughout the study. The audit trail documented methodological decisions, interview procedures, coding processes, theme development, and data interpretation. This process enhanced transparency and allowed the research process to be systematically traced**.**

Confirmability

Confirmability refers to the extent to which findings are derived from participants' experiences rather than researcher bias. Reflexive notes were maintained throughout the research process to monitor assumptions and reduce subjective influence. In addition, direct participant quotations were used to support thematic interpretations and ensure that findings accurately reflected participants' perspectives**.**

Ethical Considerations

Ethical approval was taken from the ethical committee of Superior University. Ethical principles were observed throughout the study in accordance with established guidelines for educational research. Prior approval was obtained from the relevant institutional authorities before commencing data collection.

Participants were informed about the purpose of the study, the voluntary nature of participation, and their right to withdraw at any stage without penalty (Schneijderberg et al., 2026).

Written informed consent was obtained from all participants before conducting interviews. Confidentiality and anonymity were ensured through the use of pseudonyms and removal of identifying information from interview transcripts and reports. Audio recordings, transcripts, and research documents were securely stored and used solely for academic purposes. The researcher ensured that participants experienced no physical, psychological, or professional harm throughout the research process.

Findings

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Demographic Characteristics of Participants

Variable	Category	Frequency (f)	Percentage (%)
Gender	Female	11	73.3
	Male	4	26.7
Teaching Experience	1–5 Years	5	33.3
	6–10 Years	2	13.3
	11–15 Years	4	26.7
	16–20 Years	3	20.0
	Above 20 Years	1	6.7
Academic Qualification	MPhil Education	8	53.3
	PhD Education	7	46.7
Age Group (Years)	20–30 Years	1	6.7
	31–40 Years	9	60.0
	41–50 Years	5	33.3

Table 1 presents the demographic characteristics of the participants. The majority of participants were female (73.3%), while males constituted 26.7% of the sample. Most participants were aged between 31 and 40 years (60.0%). Regarding academic qualifications, 53.3% held an MPhil in Education and 46.7% possessed a PhD in Education. Participants represented diverse levels of teaching experience, ranging from 1 year to more than 20 years, providing a broad range of perspectives on the implementation of the National Qualifications Framework (NQF) in BS Education programs

Theme 1: Faculty Awareness and Understanding of NQF

The findings revealed varying levels of faculty awareness and understanding regarding the National Qualifications Framework (NQF). Most participants perceived the NQF as an important mechanism for improving educational quality, strengthening curriculum alignment, and promoting learning outcome achievement. Faculty members who had participated in professional development activities demonstrated greater confidence in applying NQF principles within curriculum planning, teaching, and assessment practices. However, participants also reported that awareness and understanding were not consistent across institutions and departments, resulting in differences in implementation practices.

Participant P2 stated, “NQF provides a clear direction for curriculum development and learning outcomes, but many faculty members still require training to fully understand its practical application.”

Similarly, Participant P5 explained, “Faculty awareness has improved over time, but implementation varies depending on individual understanding and institutional support.”

Participant P8 commented, “Training workshops have helped faculty understand how learning outcomes should be aligned with curriculum and assessment.”

However, some participants highlighted continuing challenges. Participant P11 noted, “Some teachers still view NQF as an administrative requirement rather than a teaching framework,” while Participant P14 stated, “Greater awareness is needed to ensure consistent implementation across departments.”

Overall, the findings suggest that faculty awareness and professional understanding are fundamental prerequisites for successful implementation of NQF standards and outcome-based education practices.

Theme 2: Curriculum Alignment and Learning Outcome Practices

The findings indicated that institutions are increasingly emphasizing alignment among Program Learning Outcomes (PLOs), Course Learning Outcomes (CLOs), Student Learning Outcomes (SLOs), and NQF standards. Participants described curriculum mapping, structured lesson planning, and learning outcome integration as important practices that support curriculum coherence and educational effectiveness. Faculty members generally perceived that alignment efforts had improved over time through institutional monitoring, curriculum review processes, and collaborative planning activities.

Participant P3 explained, “We regularly map CLOs with PLOs to ensure that our courses contribute to program objectives and NQF requirements.”

Likewise, Participant P6 stated, “Curriculum alignment has improved through faculty coordination and periodic curriculum reviews.”

Participant P9 noted, “Course outlines are now designed with greater emphasis on measurable learning outcomes,” while Participant P12 remarked, “Alignment practices have become stronger due to institutional monitoring and curriculum committees.”

Despite these positive developments, some participants observed inconsistencies in implementation. Participant P15 commented, “There is progress in curriculum mapping, but implementation differs among departments.”

In summary, the findings demonstrate that curriculum alignment has become an important component of NQF implementation; however, continued efforts are required to ensure consistency and sustainability across programs and institutions.

Theme 3: Teaching and Learning Practices

The findings revealed that faculty members employed a wide range of teaching and learning practices to support the implementation of learning outcomes and the National Qualifications Framework (NQF). Participants described the use of both traditional and learner-centered instructional approaches, reflecting a gradual shift toward more interactive and outcome-oriented teaching. While lecture-based teaching and classroom discussions remained common practices, faculty members increasingly emphasized active learning, collaborative activities, problem-based learning, and student engagement as essential components of effective instruction.

Participant P2 explained, “We use a combination of lectures, discussions, and activities because students learn differently and require diverse teaching approaches.” Similarly, Participant P5 stated, “Teaching has become more student-centered, and we encourage students to participate actively rather than simply listen to lectures.” Participant P8 remarked, “Group work and peer discussions help students learn from each other and develop teamwork skills.” Likewise, Participant P11 noted, “Problem-based learning encourages critical thinking and enables students to apply theoretical knowledge to practical situations.” Participant P14 further commented, “Digital platforms, presentations, and activity-based learning have improved student engagement and made teaching more interactive.”

The findings also indicated a growing emphasis on outcome-oriented and standards-based teaching practices. Faculty members reported aligning their instructional activities with Course Learning Outcomes (CLOs), Program Learning Outcomes (PLOs), and NQF expectations to ensure that intended competencies were achieved. Participant P3 stated, “Our teaching strategies are increasingly guided by CLOs and PLOs to achieve the intended outcomes.” Similarly, Participant P7 explained, “We try to align our classroom practices with NQF requirements and international standards.” Participant P10 noted, “Teaching is no longer focused only on content coverage but on ensuring that students achieve the expected competencies.”

Despite these positive developments, several participants highlighted challenges affecting effective implementation. Participant P13 observed, “Some faculty members still have limited understanding of CLOs, which affects their teaching practices.” Likewise, Participant P15 remarked, “Ensuring alignment between curriculum, teaching, and learning outcomes remains difficult across different departments.”

Overall, the findings suggest that BS Education programs are increasingly adopting diverse, learner-centered, and outcome-based teaching practices. However, inconsistencies in understanding and implementation indicate the need for continued professional development and institutional support to strengthen alignment between teaching practices and NQF expectations.

Theme 4: Assessment Practices

The findings demonstrated that faculty members employed a variety of assessment practices to evaluate student learning and monitor achievement of intended outcomes. Participants described the use of formative, summative, and mixed assessment strategies, indicating a shift toward continuous and comprehensive evaluation practices aligned with NQF requirements.

Participant P1 explained, “We use quizzes and classroom observations regularly to monitor students’ progress and provide feedback.” Participant P4 stated, “Final examinations remain important, but we also rely on assignments, projects, and presentations to assess learning outcomes.” Similarly, Participant P6 remarked, “Continuous assessment allows us to identify learning gaps and support students throughout the semester.” Participant P9 noted, “Assessment tasks are increasingly linked to CLOs and PLOs to ensure that intended outcomes are measured.” Participant P12 further commented, “We try to use different assessment methods because one approach cannot capture all aspects of student learning.”

The findings also revealed increasing alignment between assessment practices and NQF standards. Faculty members emphasized standards-based assessment, outcome-focused teaching, and reflective practices aimed at improving educational quality. Participant P7 stated, “Assessment should reflect the learning outcomes and not merely test students’ memory.” Likewise, Participant P10 observed, “The focus has shifted from completing the syllabus to evaluating competencies and achievement of objectives.”

However, participants identified several challenges. Participant P13 noted, “Many teachers and students still lack awareness of NQF requirements.” Participant P15 commented, “Institutional practices are not always aligned with outcome-based assessment principles.”

In summary, the findings indicate that assessment practices within BS Education programs are becoming more diverse, continuous, and outcome-focused. Nevertheless, greater awareness, institutional alignment, and faculty support are needed to strengthen assessment practices and ensure consistency across institutions.

Theme 5: Institutional Challenges Affecting NQF Implementation

The findings identified several institutional challenges that hinder effective implementation of learning outcomes and NQF standards. Faculty members frequently referred to workload pressures, limited resources, weak institutional structures, and insufficient professional development opportunities as barriers affecting implementation.

Participant P2 explained, “Heavy teaching responsibilities leave little time for curriculum review and quality improvement activities.” Similarly, Participant P5 stated, “Time constraints prevent faculty from fully engaging in outcome mapping and assessment processes.” Participant P8 remarked, “There is a lack of resources and facilities needed to support effective implementation.” Participant P11 noted, “Institutional support is limited, and proper implementation mechanisms are often absent.” Participant P14 further commented, “Budget limitations and administrative barriers affect our ability to implement NQF practices effectively.”

Participants also highlighted policy and awareness-related challenges. Participant P6 observed, “Many teachers are still not fully informed about NQF expectations.” Likewise, Participant P9 stated, “Continuous training is necessary because faculty members require regular updates and guidance.” Interestingly, Participant P15 remarked, “Some institutions experience fewer barriers due to stronger support systems and better management practices.”

Overall, the findings suggest that institutional challenges remain a major obstacle to effective implementation of NQF. Addressing workload concerns, strengthening institutional support, improving resource availability, and expanding professional development opportunities are essential for ensuring sustainable implementation.

Theme 6: Suggestions for Improvement and Recommendations

Participants proposed several strategies to strengthen implementation of learning outcomes and the National Qualifications Framework within BS Education programs. Faculty members consistently emphasized the importance of professional development, institutional commitment, and systematic quality enhancement initiatives.

Participant P3 explained, “Regular training sessions should be organized to improve faculty understanding of NQF and learning outcomes.” Participant P5 stated, “Seminars and awareness programs can help teachers understand how to apply outcome-based approaches effectively.” Participant P8 remarked, “University policies should be aligned with NQF requirements to ensure consistency.” Participant P10 observed, “Monitoring systems and periodic reviews are necessary to evaluate implementation.” Participant P13 further commented, “Resources and proper operational frameworks should be available to support faculty.”

Participants also highlighted broader recommendations related to curriculum improvement and quality assurance. Participant P6 stated, “Courses should be updated regularly to reflect changing educational needs.” Likewise, Participant P11 explained, “Students should be informed about CLOs and PLOs so that they understand the purpose of their learning.” Participant P15 noted, “Continuous evaluation, practical exposure, and internships are important for improving graduate competencies.”

In summary, the findings indicate that strengthening NQF implementation requires coordinated efforts involving faculty development, policy alignment, curriculum revision, institutional integration, monitoring

mechanisms, and continuous quality enhancement. These recommendations reflect participants' commitment to improving the effectiveness and sustainability of BS Education programs in alignment with national and international standards.

Discussion

The present study explored faculty perspectives regarding the implementation of the National Qualifications Framework (NQF) within BS Education programs in Punjab, Pakistan. The findings indicate that although NQF is increasingly recognized as a valuable mechanism for improving educational quality and strengthening outcome-based practices, its implementation remains uneven across institutions. Variations in faculty awareness, curriculum alignment practices, teaching and assessment approaches, and institutional support collectively influence the extent to which NQF principles are translated into educational practice.

A major finding of this study was the variation in faculty awareness and understanding of NQF. Participants generally perceived NQF as an important framework for enhancing curriculum quality, promoting accountability, and facilitating learning outcome achievement. Faculty members who had participated in workshops and professional development activities demonstrated greater confidence in implementing NQF principles than those who had not received formal training. This finding suggests that awareness and understanding are fundamental prerequisites for effective educational reform. The results support previous studies that identified faculty preparedness as a critical determinant of successful implementation of outcome-based education and qualification frameworks. The findings imply that educational reforms cannot be effectively institutionalized when faculty members view qualification frameworks merely as administrative requirements rather than pedagogical tools. Therefore, sustained professional development initiatives are necessary to strengthen faculty understanding and foster ownership of reform processes.

Another important finding concerned curriculum alignment and learning outcome practices. Participants reported increasing efforts to align Program Learning Outcomes (PLOs), Course Learning Outcomes (CLOs), Student Learning Outcomes (SLOs), and NQF standards through curriculum mapping, structured lesson planning, and collaborative curriculum review. These findings reflect a growing commitment to coherence and accountability within teacher education programs. The results strongly support Constructive Alignment Theory (Biggs & Tang, 2011), which proposes that intended learning outcomes, teaching activities, and assessment practices should function as an integrated system. Faculty descriptions of curriculum mapping and outcome integration indicate that BS Education programs are gradually adopting constructively aligned approaches. However, inconsistencies across departments suggest that alignment remains developmental rather than fully institutionalized. Consequently, continuous curriculum review and institutional monitoring are essential to sustain alignment practices and ensure consistency in implementation.

The findings further revealed a gradual transformation in teaching and learning practices. Although traditional lecture-based methods remain common, participants reported increasing adoption of learner-centered approaches, including collaborative learning, discussion-based instruction, active learning, problem-based learning, and digital engagement strategies. These findings indicate that teacher education programs are moving beyond content transmission toward more interactive and student-focused pedagogies. Such practices are consistent with the principles of Outcome-Based Education (OBE), which emphasize learner engagement, competency development, and achievement of clearly defined outcomes. Faculty members also reported greater emphasis on aligning teaching practices with CLOs, PLOs, and NQF expectations. This shift demonstrates an emerging recognition that effective teaching involves facilitating meaningful learning experiences that contribute directly to intended outcomes. Nevertheless, participants acknowledged that limited understanding of CLOs and difficulties in ensuring alignment continue to affect the quality and consistency of instructional practices. This suggests that pedagogical transformation requires ongoing support, training, and reflective practice.

Assessment practices constituted another significant theme within the findings. Participants described increasing reliance on formative assessment, summative assessment, and mixed evaluation approaches to monitor student learning and measure achievement of intended outcomes. The use of quizzes, assignments, projects, presentations, classroom observations, and continuous evaluation reflects a movement toward more comprehensive assessment system. Faculty members emphasized that assessments should be linked to CLOs and PLOs rather than focusing solely on content coverage. These findings support the central principles of OBE, which advocate assessment practices that accurately measure competencies and learning achievements. However, participants also identified challenges related to institutional misalignment, lack of awareness, and persistent emphasis on traditional examinations. This finding suggests that assessment reform remains one of the most challenging aspects of implementing qualification frameworks. Designing valid and reliable assessments that capture complex learning outcomes requires faculty expertise, institutional guidance, and continuous quality monitoring.

Institutional challenges emerged as one of the most significant barriers affecting NQF implementation. Participants frequently referred to heavy workloads, time constraints, limited resources, financial limitations, inadequate institutional support, and weak implementation mechanisms. Similar concerns have been reported internationally, particularly within developing higher education systems where reforms often exceed available institutional capacity. The findings suggest that successful implementation of NQF cannot depend solely on individual faculty commitment. Rather, supportive organizational structures, effective leadership, clear policies, adequate funding, and accessible resources are essential for translating policy intentions into practice. The presence of participants who reported relatively fewer barriers further highlights that institutional context plays a decisive role in determining implementation success. Institutions characterized by stronger leadership, better infrastructure, and continuous support mechanisms appear better positioned to embed outcome-based reforms effectively.

Participants also offered practical suggestions and recommendations for strengthening NQF implementation. Faculty members consistently emphasized the importance of structured training programs, awareness campaigns, continuous professional development, policy integration, resource provision, and systematic monitoring. Recommendations related to curriculum revision, institutional coordination, internships, student awareness, and practical exposure further reflect participants' recognition that sustainable reform requires collective commitment and ongoing evaluation. These findings highlight that educational quality improvement is a dynamic process rather than a one-time initiative. Successful implementation depends on creating cultures of continuous improvement in which faculty development, curriculum enhancement, and quality assurance operate as interconnected processes.

The findings also reinforce the relevance of Constructive Alignment Theory and Outcome-Based Education as guiding frameworks for understanding educational reform. Faculty members highlighted the importance of aligning learning outcomes, teaching practices, and assessment processes, which reflects the fundamental assumptions of constructive alignment. Similarly, the increasing emphasis on student-centered learning, competency development, and standards-based practices demonstrates the growing influence of OBE principles within teacher education programs. The findings therefore provide empirical support for the application of these theoretical perspectives within qualification framework implementation. They suggest that NQF serves not merely as a regulatory instrument but as a mechanism capable of transforming pedagogical practices and promoting educational coherence when implemented effectively.

An equally important implication relates to quality assurance and educational reform within developing countries. Faculty perceptions indicate that NQF contributes to greater transparency, accountability, and systematic evaluation by encouraging alignment among curriculum, teaching, assessment, and intended outcomes. However, the realization of these benefits depends on sustained institutional commitment and adequate investment in human and material resources. Many emerging higher education systems face challenges similar to those identified in this study, including limited awareness, insufficient professional development, and organizational constraints. Consequently, the experiences of faculty members within BS Education programs provide valuable insights for policymakers, accreditation bodies, and institutional leaders seeking to strengthen qualification frameworks and improve educational effectiveness in resource-constrained settings.

Overall, the findings indicate that implementation of the National Qualifications Framework within BS Education programs is progressing but remains at a developmental stage. Positive developments are evident in increasing faculty awareness, stronger curriculum alignment, greater use of learner-centered pedagogies, and expanding adoption of outcome-based assessment practices. Nevertheless, institutional barriers, inconsistencies in implementation, and gaps in professional understanding continue to influence effectiveness. Consistent with Constructive Alignment Theory and the principles of Outcome-Based Education, successful implementation requires coherence among learning outcomes, teaching practices, assessment systems, and institutional structures. Continued investment in faculty

capacity building, curriculum review, quality assurance mechanisms, and institutional support will be essential for ensuring that NQF principles become fully embedded within educational practice. By providing qualitative evidence from teacher education programs in Pakistan, this study contributes to the growing international discourse on qualification frameworks and outcome-based education within developing-country contexts**.**

Implications of the Study

Theoretical Implications

This study extends Constructive Alignment Theory and reinforces the relevance of Outcome-Based Education by demonstrating that effective implementation of the National Qualifications Framework depends on alignment among learning outcomes, teaching practices, and assessment processes. The findings contribute qualitative evidence to the literature on qualification frameworks, curriculum alignment, and quality assurance in teacher education.

Implications for Policy and Practice

The findings suggest that effective implementation requires continuous faculty development, institutional support, curriculum mapping, and alignment of assessment practices with intended learning outcomes. Higher education institutions and quality assurance bodies should strengthen professional development initiatives, monitoring systems, and resource provision to support sustainable implementation.

Implications for Teacher Education

Teacher education programs should promote outcome-based and learner-centered practices that prepare future teachers with the competencies required for contemporary educational contexts. Strengthening faculty capacity to design aligned curricula, implement effective teaching strategies, and develop outcome-focused assessments can enhance program quality and support alignment with globally recognized standards and quality assurance expectations.

Conclusion

This study explored faculty perspectives on the implementation of the National Qualifications Framework (NQF) within BS Education programs in Punjab, Pakistan. The findings indicated that faculty members generally perceived NQF as a valuable framework for strengthening educational quality, enhancing curriculum coherence, and promoting the achievement of intended learning outcomes. Increasing attention to curriculum alignment, learner-centered teaching practices, and outcome-focused assessment reflects a gradual transition toward competency-based and quality-oriented educational processes within teacher education programs.

The study further demonstrated that faculty awareness and understanding are critical to effective implementation of NQF. While institutions have increasingly embraced practices such as curriculum mapping, alignment of Program Learning Outcomes (PLOs), Course Learning Outcomes (CLOs), and Student Learning Outcomes (SLOs), as well as continuous assessment, variations in implementation persist due to differences in professional preparation and institutional support. Institutional challenges, including limited resources, heavy workloads, inadequate professional development opportunities, and weak support mechanisms, continue to influence the consistency and effectiveness of implementation.

Overall, the findings suggest that successful implementation of NQF requires coherent alignment among curriculum, teaching, assessment, and quality assurance processes, supported by sustained faculty development and institutional commitment. The study contributes to the growing discourse on outcome-based education and qualification frameworks by providing qualitative evidence from teacher education programs in a developing-country context. The findings offer valuable insights for policymakers, accreditation bodies, institutional leaders, and teacher educators seeking to strengthen quality assurance and enhance the effectiveness of teacher education. By highlighting both the opportunities and challenges associated with NQF implementation, this study provides an evidence-based foundation for future reforms aimed at improving educational quality, enhancing graduate competencies, aligning teacher education programs with globally recognized standards, and enhancing the international credibility of higher education qualifications.

Recommendations

1. Higher education institutions should provide regular faculty development programs to strengthen understanding of qualification frameworks, outcome-based education, curriculum alignment, and assessment practices in line with international quality standards.
2. Universities should strengthen curriculum mapping and quality assurance mechanisms to ensure alignment among learning outcomes, teaching practices, assessment strategies, and qualification framework requirements.
3. Institutional leaders should provide adequate resources, technological support, and professional development opportunities to facilitate effective implementation of educational reforms and enhance graduate competencies.
4. Policymakers, quality assurance agencies, and higher education institutions should promote national and international collaboration to share best practices, strengthen qualification framework implementation, and support continuous quality enhancement in higher education.

Limitations of the Study

This study was conducted with faculty members from selected universities in Punjab, Pakistan; therefore, the findings should be interpreted within the context of teacher education programs operating within a specific regional and institutional environment. Although the findings may offer insights relevant to similar higher education settings, they may not be generalizable to all institutions or national contexts.

The study relied primarily on qualitative interviews and self-reported perceptions, which may have been influenced by participants' individual experiences, professional backgrounds, and institutional circumstances. Furthermore, the study focused exclusively on faculty perspectives and did not triangulate findings through institutional documents, classroom observations, or the perspectives of other stakeholders such as students, administrators, policymakers, employers, and quality assurance personnel. The inclusion of multiple data sources may have provided a more comprehensive understanding of National Qualifications Framework implementation.

Despite these limitations, the study provides valuable insights into the opportunities and challenges associated with implementing qualification frameworks within teacher education programs and contributes to the broader literature on outcome-based education and quality assurance in higher education.

Future Research Directions

Future studies should examine qualification framework implementation across different academic disciplines, institutional types, and national contexts to enhance understanding of implementation processes and outcomes. Comparative research involving public and private universities, as well as cross national studies, may provide deeper insights into how institutional and contextual factors influence implementation effectiveness.

Researchers may also employ mixed methods and longitudinal research designs to examine the relationships among faculty practices, curriculum alignment, student learning outcomes, graduate competencies, and employability. Such studies would provide stronger evidence regarding the long-term impact of qualification frameworks on educational quality and student success.

Further research is needed to investigate the perspectives of multiple stakeholders, including students, academic leaders, quality assurance professionals, employers, and policymakers. Exploring these perspectives may provide a more comprehensive understanding of the factors that facilitate or hinder successful implementation.

Future studies should also examine emerging issues related to digital learning environments, competency-based assessment, artificial intelligence supported learning, and international quality assurance practices to better understand how qualification frameworks can support higher education reform in rapidly changing educational contexts.

Declarations

Ethics Approval and Consent to Participate

This study was approved by the Research Ethics Committee, Department of Education, Superior University, Lahore, Punjab, Pakistan. The study was conducted in accordance with the ethical standards of the institution and the principles of educational research. Participation was voluntary, and all

participants were informed about the purpose of the study prior to data collection. Written informed consent was obtained from all participants before participation in the interviews.

Consent for Publication

All participants provided informed consent for the publication of anonymized data derived from the study. No personally identifiable information has been included in this manuscript.

Clinical Trial Number

Not applicable.

Data Availability

The datasets generated and/or analyzed during the current study are not publicly available due to confidentiality and privacy considerations but are available from the corresponding author upon reasonable request.

Author Contributions

Mansoor Ahmad: Conceptualization, methodology, investigation, data collection, formal analysis, interpretation of findings, writing—original draft preparation.

Prof. Dr. Muhammad Sarwar: Supervision, conceptualization, validation, review and editing of the manuscript.

Najeeba Javed: Literature review, data interpretation, writing—review and editing.

Muhammad Arif: Methodology, validation, review and editing, and academic support.

Dr. Muhammad Siddique: Supervision, quality assurance, validation, review and editing of the manuscript.

All authors read and approved the final version of the manuscript.

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Competing Interests

The authors declare that they have no known competing financial interests, professional interests, personal relationships, or affiliations that could have appeared to influence the work reported in this manuscript.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

Authors' Information

Mansoor Ahmad is a PhD Scholar in Education at Superior University, Lahore, Pakistan. His research interests include teacher education, curriculum studies, educational quality assurance, and outcome-based education.

Prof. Dr. Muhammad Sarwar is Dean, Faculty of Arts and Humanities, Superior University, Lahore, Pakistan, with extensive experience in higher education leadership, educational policy, and teacher education.

Najeeba Javed is a PhD Scholar in Education at Superior University, Lahore, Pakistan. Her research interests include curriculum development, teacher education, and educational reform.

Muhammad Arif is an Assistant Professor in the Department of Education, Superior University, Lahore, Pakistan. His areas of expertise include educational research, assessment, and teacher professional development.

Dr. Muhammad Siddique is a faculty member at Superior University, Lahore, Pakistan. His research interests focus on educational quality, curriculum alignment, and higher education reform.

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Figures

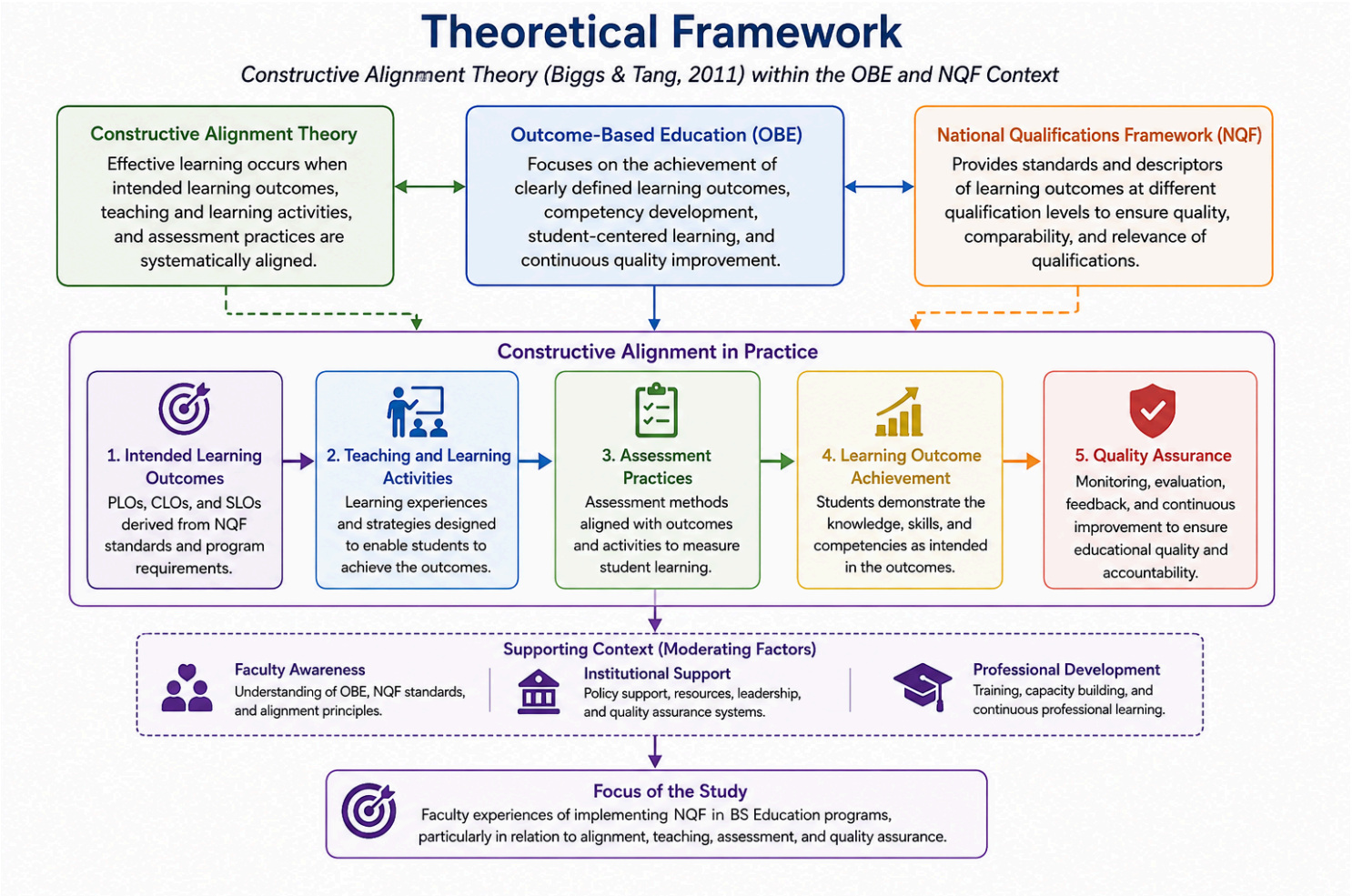


Figure 1

theoretical framework of the study

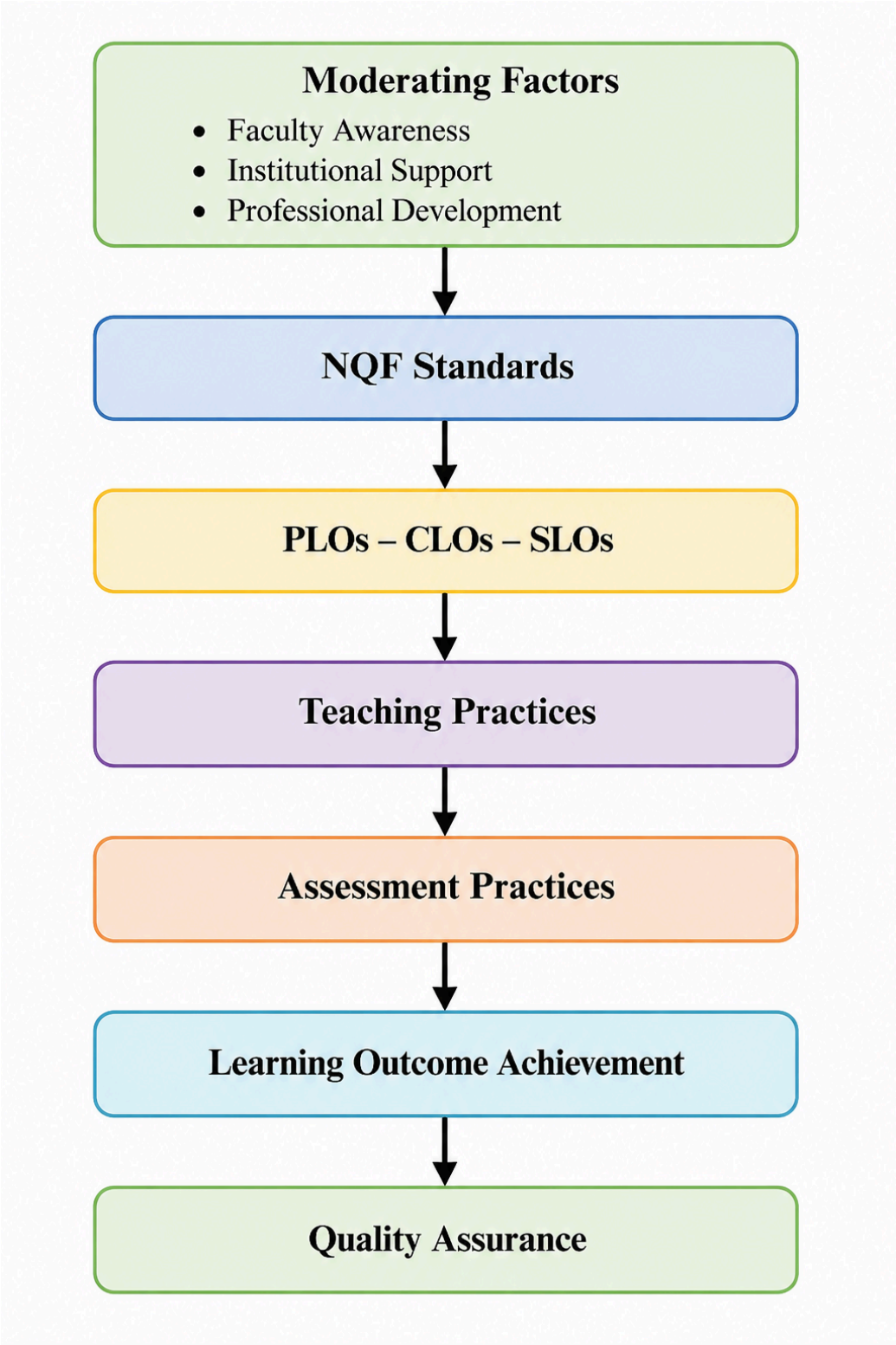


Figure 2

conceptual frameworks of the study