

แบบจำลองคุณภาพการสอนในระดับอุดมศึกษา
ณ มหาวิทยาลัยวิทยาศาสตร์และเทคโนโลยีภัยโจวเจียนหนาน*

Wenyan Liang¹

ลำเรียง อ่อนสัมพันธ์² ชีระพงศ์ บุศราภูล³ ปิยพันธ์ แสนทวีสุข⁴

(วันที่รับบทความ: 9 เมษายน 2569; วันที่แก้ไขบทความ: 28 พฤษภาคม 2569; วันที่ตอบรับบทความ: 9 มิถุนายน 2569)

บทคัดย่อ

การศึกษานี้มีวัตถุประสงค์เพื่อ (1) ตรวจสอบสถานะปัจจุบันของคุณภาพการสอนและปัจจัยที่ส่งผลกระทบต่อภายใต้วิธีการสอนและรูปแบบการสอนที่มีอยู่ในระดับอุดมศึกษา ณ มหาวิทยาลัยวิทยาศาสตร์และเทคโนโลยีภัยโจวเจียนหนาน (2) เพื่อพัฒนาแบบจำลองคุณภาพการสอนที่สามารถสนับสนุนการบรรลุเป้าหมายของการศึกษาที่มีคุณภาพได้อย่างมีประสิทธิภาพ และ (3) เพื่อประเมินแบบจำลองบูรณาการของวิธีการสอนและรูปแบบการสอนที่มุ่งเน้นการศึกษาที่มีคุณภาพ โดยงานวิจัยนี้ใช้การออกแบบวิจัยแบบผสมผสานที่รวมทั้งแนวทางเชิงปริมาณและเชิงคุณภาพเข้าด้วยกัน ซึ่งทำการเก็บรวบรวมข้อมูลผ่านแบบสอบถาม การสัมภาษณ์แบบกึ่งโครงสร้าง และการขอคำปรึกษาจากผู้เชี่ยวชาญ ในส่วนของข้อมูลเชิงปริมาณได้รับการวิเคราะห์ด้วยสถิติเชิงพรรณนาและกระบวนการวิเคราะห์องค์ประกอบ ขณะที่ข้อมูลเชิงคุณภาพวิเคราะห์โดยการตีความเชิงเนื้อหาเพื่อสนับสนุนการพัฒนาและการอธิบายแบบจำลอง ผลการศึกษาชี้ให้เห็นว่าคุณภาพการสอนในระดับอุดมศึกษาเป็นโครงสร้างที่มีหลายมิติ โดยสามารถระบุได้เป็น 3 มิติหลัก ได้แก่ คุณภาพการสอนขั้นพื้นฐาน คุณภาพการสอนเฉพาะทาง และคุณภาพการสอนเชิงพัฒนา นอกจากนี้แบบจำลองบูรณาการที่นำเสนอยังแสดงให้เห็นว่าคุณภาพการสอนได้รับอิทธิพลจากปัจจัยส่วนบุคคล ปัจจัยระดับสถาบัน และปัจจัยเชิงบริบทที่มีความสัมพันธ์เกี่ยวเนื่องกัน ข้อค้นพบเหล่านี้ถือเป็นพื้นฐานเชิงประจักษ์ในการทำความเข้าใจคุณภาพการสอน และเป็นแนวทางในการปฏิรูปการสอนที่เน้นคุณภาพในระดับอุดมศึกษาต่อไป

คำสำคัญ: คุณภาพการสอน, ระดับอุดมศึกษา, มหาวิทยาลัยวิทยาศาสตร์และเทคโนโลยีภัยโจวเจียนหนาน

* บทความวิจัย คณะศึกษาศาสตร์ มหาวิทยาลัยชินวัตร, 2567

¹ นักศึกษาปริญญาเอก, คณะศึกษาศาสตร์ มหาวิทยาลัยชินวัตร, E-mail: Wenyan360432250@hotmail.com, (Corresponding Author)

² ผู้ช่วยศาสตราจารย์, คณะศึกษาศาสตร์ มหาวิทยาลัยชินวัตร, E-mail: samrerng.o@siu.ac.th

³ อาจารย์, คณะศึกษาศาสตร์ มหาวิทยาลัยชินวัตร, E-mail: theerapong.b@siu.ac.th

⁴ รองศาสตราจารย์, วิทยาลัยดุริยางคศิลป์ มหาวิทยาลัยมหาสารคาม, E-mail: Piyapun.s@msu.ac.th

The Model of Teaching Quality in Higher Education in Guizhou Qiannan University of Science and Technology*

Wenyan Liang¹

Samrerng Onsampant² Theerapong Budsarakoo³ Piyapun Santaveesuk⁴

(Received: April 9, 2026; Revised: May 28, 2026; Accepted: June 9, 2026)

Abstract

This study aimed to: (1) examine the current status of teaching quality and its affecting factors under existing teaching methods and teaching modes in higher education at Guizhou Qiannan University of Science and Technology, (2) develop a teaching quality model that effectively supports the achievement of quality education goals, and (3) evaluate an integrated model of teaching methods and teaching modes oriented toward quality education. The study employed a mixed-methods design combining quantitative and qualitative approaches. Data were collected through questionnaires, semi-structured interview forms, and expert consultation. Quantitative data were analyzed using descriptive statistics and factor-analytic procedures, while qualitative data were analyzed through content-based interpretation to support model development and explanation. The findings indicated that teaching quality in higher education is a multidimensional construct comprising three major dimensions: basic teaching quality, specialized teaching quality, and developmental teaching quality. Additionally, the proposed integrated model revealed that teaching quality was influenced by interrelated personal, institutional, and contextual factors. These findings provide an empirical foundation for understanding teaching quality and guiding quality-oriented teaching reform in higher education.

Keywords: Teaching Quality, Higher Education, Guizhou Qiannan University of Science and Technology

* Research article, Faculty of Education, Shinawatra University, 2024

¹ Ph.D. Student, Faculty of Education, Shinawatra University, E-mail: Wenyan360432250@hotmail.com, (Corresponding Author)

² Assistant Professor, Faculty of Education, Shinawatra University, E-mail: samrerng.o@siu.ac.th

³ Lecturer, Faculty of Education, Shinawatra University, E-mail: theerapong.b@siu.ac.th

⁴ Associate Professor, College of Music, Mahasarakham University, E-mail: Piyapun.s@msu.ac.th

Introduction

The 21st century has brought rapid changes in knowledge production, digital technology, and labor-market expectations, creating new challenges for higher education. Universities are no longer expected merely to transmit disciplinary knowledge; they are also required to cultivate graduates with critical thinking, adaptability, practical competence, and lifelong learning capacity. Under these conditions, traditional instructional models centered primarily on one-way content delivery have become increasingly insufficient for meeting the demands of contemporary higher education. As a result, teaching quality has emerged as a key concern in educational reform because it directly influences student development, institutional effectiveness, and the broader social mission of higher education (Liu & Fu, 2000; Qi & Wang, 2012).

Quality education provides an important framework for understanding this shift. Rather than focusing solely on academic achievement, quality education emphasizes holistic development, including innovation, communication, ethics, problem solving, and continuous self-improvement. In higher education, this orientation requires teaching to move beyond routine lecturing toward more responsive, interactive, and developmental forms of learning. Prior studies have argued that teaching quality should be treated as a multidimensional concept involving not only instructional effectiveness, but also learner engagement, learning conditions, and ongoing evaluation and feedback processes (Fu, 2005; Huang, 2017; Wang et al., 2018). This broader view suggests that teaching quality is best understood as a structured and improvable system rather than a single classroom attribute.

Existing research also indicates that many barriers to teaching quality remain embedded in institutional practice. Traditional lecture-dominated classrooms, rigid course structures, and evaluation systems that rely too heavily on summative outcomes continue to limit interaction, inquiry, and meaningful learning. Such conditions may weaken learner agency, reduce opportunities for reflection and collaboration, and constrain teachers' ability to innovate in response to educational change. Studies in the dissertation bibliography further suggest that teaching quality is undermined when institutions fail to provide adequate support for formative assessment, practical teaching development, and reflective pedagogical improvement (Fu & Liu, 2012; Huang, 2015; Qi & Wang, 2012). Therefore, improving teaching quality requires more than revising teaching techniques; it also requires supportive systems, developmental opportunities, and evaluation mechanisms aligned with quality education goals.

Another important theme in the literature is the central role of teachers in shaping educational quality. Teaching quality is closely associated with teachers' pedagogical competence, subject expertise, professional ethics, reflective capacity, and participation in continuous professional development. In this sense, teachers are not merely classroom instructors, but also designers of learning experiences, evaluators of student progress, and contributors to institutional culture. Research has emphasized that high teaching quality is more likely to emerge when institutions support teacher development through training, autonomy, recognition, and appropriate evaluation systems (Cai & Xiong, 2018; Liang, 2014; Wang et al., 2022). Conversely, limited developmental support, weak institutional safeguards, and superficial evaluation practices may restrict the long-term improvement of teaching quality. These issues are particularly relevant in the context of Chinese higher education, where institutions are under increasing pressure to improve educational quality while responding to national modernization goals and regional development needs. Applied and regional universities, in particular, face the challenge of aligning teaching with practical competence, innovation, and local social demands. Previous studies have noted that applied higher education requires stronger connections among curriculum, professional practice, teacher competence, and institutional support systems (Pan, 2007; Liu, 2018; Liu, 2021). Yet there remains a need for an integrated framework that can explain how teaching quality should be conceptualized, developed, and evaluated within the realities of contemporary higher education. Recent studies have further confirmed that teaching quality in higher education is closely related to teachers' professional development, pedagogical competence, and institutional support. For example, (Fernandes et al., 2023) found that pedagogical training in higher education positively influenced teachers' perceptions of teaching practices and professional development. Similarly, (Gast et al., 2022) emphasized that teaching-related professional development programs can support new university teachers and enhance their teaching-related well-being. In addition, the OECD (2023) highlighted that effective technology integration in teaching requires the combined development of technological, pedagogical, and content knowledge rather than general digital skills alone. These recent findings support the view that teaching quality should be understood as a developmental and institutionally supported construct, which is consistent with the focus of the present study.

These issues are particularly relevant in the context of Chinese higher education, where institutions are under increasing pressure to improve educational quality while responding to national modernization goals and regional development needs. Applied and regional universities, in particular, face the challenge of aligning teaching with practical competence, innovation, and local social demands. Previous studies

have noted that applied higher education requires stronger connections among curriculum, professional practice, teacher competence, and institutional support systems (Pan, 2007; Liu Xianjun, 2018; Liu, 2021). Yet there remains a need for an integrated framework that can explain how teaching quality should be conceptualized, developed, and evaluated within the realities of contemporary higher education.

Against this background, the present study focuses on Guizhou Qiannan University of Science and Technology as the focal context for examining the model of teaching quality in higher education. At the same time, the empirical development of the model drew on evidence from a broader survey of applied universities in China in order to strengthen the analytical basis for model construction and interpretation. Specifically, the study investigates the current status and causes of teaching quality, identifies the key components needed to promote quality education goals, and evaluates an integrated model of teaching methods and teaching modes oriented toward quality education. By combining the problem background of the focal institutional context with relevant literature and broader empirical evidence, the study aims to provide an empirically grounded framework for understanding and improving teaching quality in higher education.

Research Objectives

1. To examine the current status of teaching quality and the factors affecting it under existing teaching methods and teaching modes in higher education at Guizhou Qiannan University of Science and Technology.
2. To develop a teaching quality model for higher education at Guizhou Qiannan University of Science and Technology that can effectively support the achievement of quality education goals.
3. To evaluate the integrated model of teaching methods and teaching modes oriented toward quality education in higher education at Guizhou Qiannan University of Science and Technology.

Methodology

1. Research Design

This study employed a mixed-methods research design integrating quantitative and qualitative approaches to examine teaching quality in higher education. The quantitative component was used to investigate the structure and level of teaching quality, while the qualitative component was used to explore contextual factors and support the development and evaluation of the proposed model. This design was adopted to provide both empirical measurement and contextual interpretation of teaching quality.

2. Participants and data sources

The quantitative data were drawn from a survey of teachers and academic administrators in applied universities. The available survey dataset used in this study comprised 1,404 respondents, representing diverse backgrounds in gender, educational attainment, academic rank, years of service, disciplinary category, institutional type, and geographic location. The survey covered 23 applied universities across 12 provinces and municipalities in eastern, central, and western regions of China. Guizhou Qiannan University of Science and Technology was treated as the focal institutional context for interpreting and applying the proposed teaching quality model. Therefore, the sample was not limited only to Guizhou Qiannan University of Science and Technology; rather, the broader survey evidence from applied universities was used to strengthen the empirical basis for model construction, validation, and interpretation. In addition, qualitative data were obtained through interviews and expert consultation to support the contextualization and refinement of the teaching quality model for Guizhou Qiannan University of Science and Technology.

3. Research instruments

Three main instruments were used in this study. First, a structured questionnaire with a five-point Likert scale was employed to measure dimensions related to teaching quality. Second, semi-structured interview guides were used to collect in-depth qualitative information from teachers and teaching administrators regarding the current status of teaching quality and the factors affecting it. Third, expert consultation forms were used to refine and evaluate the proposed teaching quality model. These instruments were selected to ensure triangulation and to strengthen the explanatory value of the findings.

4. Instrument quality

The research instruments were reviewed by experts to ensure content relevance and clarity. The reliability of the questionnaire was assessed using Cronbach's alpha, and the overall reliability coefficient was 0.89, indicating good internal consistency. Construct validity was subsequently examined through factor-analytic procedures in order to identify the underlying dimensions of teaching quality and support model development.

5. Data Collection and Analysis

Quantitative data were collected through questionnaire administration, whereas qualitative data were collected through semi-structured interviews and expert consultation. The interview questions focused on the current status of teaching quality, factors affecting teaching quality, institutional support,

teaching methods, teaching modes, and suggestions for model development. Expert consultation was used to examine the appropriateness, clarity, and practical applicability of the proposed teaching quality model. Qualitative data were analyzed using content analysis, including repeated reading of the data, coding of meaningful statements, grouping similar codes into categories, identifying recurring themes, and interpreting the themes in relation to the quantitative findings. The qualitative findings were then used to explain the quantitative results and support the refinement and evaluation of the proposed model.

Results

The results are presented in line with the three research objectives of the study: (1) examining the current status of teaching quality and the factors affecting it under existing teaching methods and teaching modes, (2) developing a teaching quality model that supports the achievement of quality education goals, and (3) evaluating an integrated model of teaching methods and teaching modes oriented toward quality education. The findings are organized into four parts: respondent characteristics, reliability and construct-related evidence, levels and dimensions of teaching quality, and the integrated model of factors affecting teaching quality.

Table 1: Demographic characteristics of survey respondents (N = 1,404)

Characteristic	Category	N	%
Gender	Male	438	31.2
	Female	966	68.8
Highest education	Undergraduate	138	9.83
	Master's degree candidate	696	49.57
	Doctoral candidate	570	40.6
Professional rank/title	Assistant	156	11.11
	Lecturer	486	34.62
	Adjunct professor	435	30.98
	Professor	327	23.29
Working experience	1–5 years	210	14.96
	6–10 years	270	19.23
	11–15 years	252	17.95

Table 1: (Continue)

Characteristic	Category	N	%
	16–20 years	216	15.38
	21–25 years	162	11.54
	26–30 years	132	9.4
	More than 30 years	162	11.54
Discipline category	Technology	222	15.81
	Neo-Confucianism	225	16.03
	Agronomy	81	5.77
	Medical science	108	7.69
	Literature	60	4.27
	History	66	4.7
	Education	78	5.56
	Economics	171	12.18
	Management	126	8.97
	Art	147	10.47
	Law	42	2.99
	Philosophy	78	5.56
Location	East	603	42.95
	Middle	465	33.12
	West	336	23.93
Institutional type	Public school	837	59.62
	Non-governmental school	567	40.38
City level	Municipality directly under the central government	282	20.09
	Provincial capital	837	59.61
	Prefecture-level city	285	20.3

The demographic characteristics of the survey respondents are presented in Table 1. Of the 1,404 respondents, 68.80% were female and 31.20% were male. In terms of educational background, 49.57%

were master's degree candidates, 40.60% were doctoral candidates, and 9.83% had undergraduate-level qualifications. Regarding academic rank, lecturers accounted for the largest proportion (34.62%), followed by adjunct professors (30.98%), professors (23.29%), and assistants (11.11%).

Table 2: Reliability and construct-related evidence of the teaching quality scale.

Statistic	Value
Cronbach's alpha	0.89
KMO measure of sampling adequacy	0.976
Bartlett's test approximate chi-square	52348.44
df	630
Sig.	0.000
Number of extracted factors	3
Cumulative variance explained (%)	68.42

The reliability and construct-related evidence of the teaching quality scale are summarized in Table 2. The questionnaire demonstrated good internal consistency, with an overall Cronbach's alpha coefficient of 0.89, indicating that the instrument was sufficiently reliable for the analysis of teaching quality. In addition, the factor-analytic results provided strong support for the structural validity of the scale. The Kaiser–Meyer–Olkin measure of sampling adequacy was 0.976, and Bartlett's test of sphericity was statistically significant ($\chi^2 = 52348.444$, $df = 630$, $p < .001$). The analysis of the 36 observed items yielded three common factors, which together explained 68.420% of the cumulative variance. These findings confirm that the measurement structure of teaching quality was empirically sound and suitable for further interpretation.

Table 3: Mean, standard deviation, and level of teaching quality dimensions

Dimensions of Teaching Quality	Mean	S.D.	Level
1. Basic Teaching Quality	4.62	0.45	Very High
2. Specialized Teaching Quality	4.52	0.51	High
3. Developmental Teaching Quality	4.58	0.48	High
Total	4.57	0.48	High

The levels of teaching quality across the three major dimensions are presented in Table 3. The results indicate that all dimensions of teaching quality were rated at a high level overall. Basic Teaching Quality received the highest mean score (Mean = 4.62, S.D. = 0.45), followed by Developmental Teaching Quality (Mean = 4.58, S.D. = 0.48) and Specialized Teaching Quality (Mean = 4.52, S.D. = 0.51). The overall mean score for teaching quality was 4.57 with a standard deviation of 0.48, indicating generally positive perceptions of teaching quality across the surveyed higher education context. These results suggest that respondents perceived teachers' foundational and developmental competencies positively, while specialized teaching quality, although still rated highly, was relatively lower than the other two dimensions.

The factor-analytic findings further indicate that teaching quality can be organized into three major dimensions: basic teaching quality, specialized teaching quality, and developmental teaching quality. This three-dimensional structure directly supports the second research objective by identifying the principal components of teaching quality relevant to quality-oriented higher education. The results suggest that teaching quality is not a single characteristic of classroom performance, but a multidimensional construct encompassing foundational instructional competence, discipline-related professional competence, and the capacity for continuous development, reflection, and innovation.

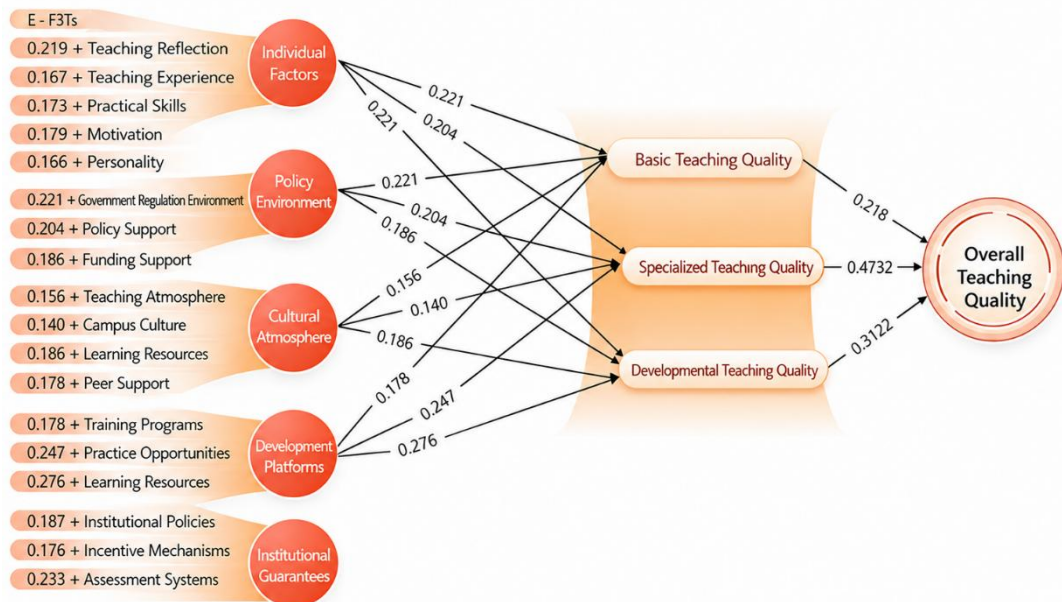


Figure 1: Integrated structural model of factors affecting teaching quality in higher education.

The integrated model of factors affecting teaching quality is illustrated in Figure 1. The model shows that individual differences, policy environment, cultural atmosphere, development platform, and institutional safeguards jointly influence the three dimensions of teaching quality, namely basic teaching quality, specialized teaching quality, and developmental teaching quality, which in turn contribute to overall teaching quality. This result indicates that teaching quality is shaped not only by instructional practice itself, but also by the interaction among personal, institutional, and contextual conditions. In other words, improvement in teaching quality requires an integrated approach that combines teacher development, institutional support, and a supportive educational environment.

Taken together, the results support all three research objectives. First, the study shows that teaching quality in higher education is influenced by multiple interrelated conditions embedded in the broader educational environment. Second, the study identifies a three-dimensional structure of teaching quality consisting of basic, specialized, and developmental teaching quality. Third, the findings support an integrated model in which personal, organizational, and contextual factors jointly shape teaching quality and provide a framework for quality-oriented teaching reform in higher education.

Discussion

The findings of this study indicate that teaching quality in higher education should be understood as a multidimensional and systemically conditioned construct rather than as a narrow reflection of classroom delivery alone. The descriptive profile of the respondents shows that the study covered a broad range of applied higher education contexts, including variation in gender, academic rank, educational background, disciplinary category, institutional type, and geographic location. This diversity is important because it suggests that teaching quality is shaped within a complex institutional and professional environment, not within a single homogeneous teaching context. In this sense, the study reinforces the view that improving teaching quality requires a broader understanding of the structural and contextual conditions under which university teachers work.

The reliability and construct-related evidence further strengthen the credibility of the findings. The questionnaire demonstrated good internal consistency, with a Cronbach's alpha coefficient of 0.89, while the factor-analytic results showed excellent sampling adequacy and a statistically significant Bartlett's test. Together with the cumulative variance explained, these results suggest that the measurement structure of teaching quality in this study was empirically robust. More importantly, the extraction of three principal dimensions-basic teaching quality, specialized teaching quality, and developmental teaching

quality-provides a clear empirical basis for understanding teaching quality as a structured construct. This finding is especially valuable for higher education research because it moves the discussion away from vague or purely normative definitions of teaching quality and toward a model that can be measured, interpreted, and applied in institutional improvement.

The three-dimensional structure identified in this study has important implications for the interpretation of teaching quality in applied higher education. The results indicate that teaching quality is not limited to basic instructional competence, but also includes discipline-related professional competence and a developmental orientation toward reflection, innovation, and continuous improvement. This interpretation is consistent with the demands of contemporary higher education, especially in applied university settings where teachers are expected to integrate disciplinary expertise, practical relevance, and educational responsiveness. The findings therefore suggest that institutions seeking to improve teaching quality should avoid overly narrow evaluation frameworks and instead recognize that strong teaching depends on the balanced development of foundational, specialized, and developmental dimensions. The present findings are also consistent with recent research on teaching quality and professional development in higher education. Smith (2024) reported that professional development for university teachers is diverse in its design, composition, and purpose, suggesting that teaching improvement should be supported through multiple and context-sensitive approaches. Fernandes et al. (2023) similarly showed that pedagogical training can contribute to teachers' professional growth and their understanding of teaching practices. Moreover, recent discussions on digital competence in higher education indicate that effective teaching increasingly requires the integration of pedagogy, disciplinary knowledge, and technology-enhanced learning. Therefore, the three-dimensional model identified in this study—basic teaching quality, specialized teaching quality, and developmental teaching quality—is supported by recent literature and reflects the broader direction of contemporary higher education reform.

The mean scores reported for the three dimensions offer additional insight into the present condition of teaching quality. Basic teaching quality received the highest mean score, whereas specialized teaching quality received the lowest among the three dimensions, although all dimensions were rated at a generally high level. This pattern may indicate that teachers already possess relatively strong foundational teaching skills, such as classroom organization, instructional planning, and general pedagogical practice, but may encounter greater challenges in strengthening specialized teaching quality. In applied higher education, specialized teaching quality is closely associated with the capacity to integrate subject expertise, professional practice, and industry-related learning experiences into teaching. A comparatively lower

score in this dimension may therefore reflect a gap between general teaching competence and the more advanced professional competencies required for quality-oriented reform in application-focused institutions.

The differences reported in the dissertation across rank, years of service, and disciplinary background provide a meaningful context for interpreting this pattern. The original findings indicate that teaching assistants and lecturers tended to perform less strongly than associate professors and full professors in secondary dimensions related to educational and professional teaching quality, while teachers with 6–10 and 11–15 years of experience tended to perform better than those at earlier or later career stages. Similarly, engineering faculty showed stronger performance in specialized teaching quality than some other disciplinary groups. These findings imply that teaching quality is not simply a function of experience or academic title alone, but is influenced by how effectively teachers are supported in connecting disciplinary expertise, practical application, and reflective teaching practice. This has practical significance for faculty development because it suggests that different groups of teachers may require different forms of support in order to improve teaching quality.

The integrated structural model provides an additional explanatory layer for these findings. The model shows that individual differences, policy environment, cultural atmosphere, development platform, and institutional safeguards jointly influence the three dimensions of teaching quality and, in turn, overall teaching quality. This is a particularly important contribution of the study because it demonstrates that teaching quality does not emerge solely from teachers' individual effort or classroom performance. Rather, it is produced through the interaction of personal, organizational, and contextual conditions. The regression-based ranking of influencing factors further clarifies this pattern: individual differences and development platforms exerted the strongest influence on overall teaching quality; development platforms and individual differences were most influential for basic teaching quality; individual differences and institutional safeguards most strongly affected specialized teaching quality; and individual differences together with development platforms most strongly affected developmental teaching quality. This pattern supports a systemic interpretation of teaching quality and highlights that institutional arrangements and developmental opportunities are essential complements to teachers' internal capacities.

The internal composition of the five influencing factors also has important interpretive value. Within individual differences, professional competence ranked highest, followed by family support, attitude and motivation, self-actualization, and personal experience. Within policy environment, policy support was more influential than funding guarantees and industry development. Within cultural atmosphere, leadership support and expert guidance were more influential than peer collaboration. Within

institutional safeguards, the professional title system and training system were particularly prominent, while within development platforms, high-level projects and key disciplines ranked highest. These findings suggest that improving teaching quality requires more than motivational appeals to teachers; it requires a structured ecology of support involving institutional recognition systems, meaningful professional development pathways, and an academic culture that actively fosters growth.

Another important implication of the study is that teaching quality improvement should be understood as a developmental process rather than as a static assessment outcome. The inclusion of developmental teaching quality as one of the three principal dimensions indicates that high-quality teaching depends on teachers' capacity to learn, adapt, innovate, and respond to emerging educational needs over time. This is especially important in higher education environments shaped by rapid technological change, changing student expectations, and stronger demands for practical and interdisciplinary competence. In this context, universities should invest not only in evaluation mechanisms, but also in professional learning systems, mentoring structures, interdisciplinary collaboration, and opportunities for pedagogical experimentation. Without these forms of support, teaching quality improvement may remain superficial or short-term rather than leading to sustained transformation.

Taken together, the discussion supports all three research objectives. First, the findings show that the current status of teaching quality is shaped by multiple interrelated conditions rather than by teaching methods alone. Second, the study identifies a three-dimensional structure of teaching quality that provides a meaningful basis for model development. Third, the integrated model demonstrates that quality-oriented teaching reform in higher education requires coordinated attention to individual capability, institutional support, developmental opportunity, and broader environmental conditions. Accordingly, the study contributes to the field by offering an empirically grounded framework for understanding and improving teaching quality in applied higher education.

Conclusion

This study concludes that teaching quality in higher education is a multidimensional construct shaped by the interaction of personal, institutional, and contextual factors. Based on the survey and supporting qualitative evidence, teaching quality was found to consist of three major dimensions: basic teaching quality, specialized teaching quality, and developmental teaching quality. This finding provides an empirical basis for understanding teaching quality not as a single attribute of classroom performance, but

as a structured and comprehensive framework that reflects foundational instructional competence, discipline-related professional competence, and the capacity for ongoing development and innovation.

The study also demonstrates that the measurement of teaching quality was supported by acceptable psychometric evidence. The questionnaire showed good internal consistency, and the factor-analytic results supported the structural validity of the construct. In addition, the descriptive results indicated that all three dimensions of teaching quality were rated at a generally high level, with basic teaching quality receiving the highest mean score. These findings suggest that while teaching quality in the surveyed higher education context was positively perceived overall, there remains room for further strengthening, particularly in the area of specialized teaching quality.

Another important conclusion is that teaching quality cannot be improved through isolated adjustments in teaching methods alone. The integrated model developed in this study shows that individual differences, policy environment, cultural atmosphere, development platform, and institutional safeguards jointly influence the three dimensions of teaching quality and, in turn, overall teaching quality. This finding highlights that quality-oriented teaching reform requires coordinated attention to teacher capability, institutional support, professional development opportunities, and the broader educational environment. In this sense, the proposed model offers a practical framework for guiding improvement efforts in higher education, particularly in applied and regionally diverse institutional settings.

Overall, this study contributes to the understanding of teaching quality by providing an empirically grounded model that links measurement, structural dimensions, and influencing factors within a single framework. The findings support the view that sustainable improvement in teaching quality depends on the balanced development of teachers' foundational, professional, and developmental capacities, together with institutional mechanisms that foster continuous growth. Accordingly, the study offers both a conceptual and practical basis for advancing quality-oriented reform in higher education.

References

- Cai, H. and Xiong, K. (2018). Action learning: Cultivation pathways for teaching competence of dual-qualified teachers in applied undergraduate institutions. *Heilongjiang Higher Education*, (6), 100–104.
- Fernandes, S., Flores, M. A. and Lima, R. M. (2023). Teacher professional development in higher education: The impact of pedagogical training perceived by teachers. *Education Sciences*, 13(3), 309.

- Fu, W. (2005). Cultivating teachers' teaching quality: The focus of promoting quality education. *China Journal of Education*, (12), 3–4.
- Fu, W. and Liu, L. (2012). A qualitative study on the components of individual teaching quality and its educational implications. *Journal of East China Normal University (Educational Sciences)*, 30(1), 1–13.
- Gast, I., Schildkamp, K. and van der Veen, J. T. (2022). Supporting the well-being of new university teachers through teacher professional development. *Frontiers in Psychology*, 13, 866000.
- Huang, B. (2017). Evaluation of teaching competence for university teachers: Reflection and construction. *Educational Research*, 38(2), 90–96, 158.
- Huang, L. (2015). Research on the training mechanism of teaching quality for teachers in applied technology universities. *Higher Education Development and Evaluation*, (3), 85–89.
- Liang, H. (2014). The connotation, influencing factors, and implementation paths of teaching professional development for college teachers. *China Adult Education*, (24), 119–121.
- Liu, L. and Fu, W. (2000). Teaching quality: Meaning, structure, and cultivation strategies. *Educational Science*, (4), 1–5.
- Liu, X. (2018). The concept and path of applied talent cultivation. *China Higher Education Research*, (10), 8–10.
- Liu, X. (2021). High-quality development of application-oriented universities: Typological logic and ecological trends. *Journal of the National Academy of Education Administration*, (9), 67–77.
- OECD. (2023). OECD Digital Education Outlook 2023: Towards an Effective Digital Education Ecosystem. Paris: OECD Publishing.
- Pan, M. (2007). On the positioning of applied undergraduate institutions. *Research on Educational Development*, (7), 34–36.
- Qi, W. and Wang, F. (2012). Teacher professional teaching quality: Connotation and characteristics. *Educational Research*, (2), 95–102.
- Smith, B. (2024). What makes professional teacher development in universities effective? A systematised literature review. *Professional Development in Education*, 51(7), 1550–1572.
- Wang, J., Wang, S. and Chen, W. (2022). Research on the competency model of blended teaching for college teachers based on TPACK. *China Distance Education*, (8), 26–34.
- Wang, L. (2018). Research on the system composition and hierarchical model of teachers' teaching competence. *Journal of Teacher Education Research*, (6), 16–24.
