ISSN 2663-8169 Vol. 8, Issue 3: 12-18, DOI: 10.25236/IJNDE.2026.080302

A Study on Reflective Teaching in University Courses

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Abstract: *In the context of high-quality development in higher education, improving course teaching quality has become a central task of university reform. Reflective teaching, as an essential pathway for teachers' professional growth, plays a significant role in optimizing classroom instruction, improving curriculum structure, and enhancing the quality of talent cultivation. Based on a review of the theoretical foundations of reflective teaching, this paper systematically analyzes its characteristics, including openness, immediacy, continuity, and practicability. From two dimensions—teachers' instructional practices and students' learning conditions—the study explores practical approaches to implementing reflective teaching in university courses. Through specific teaching cases, it illustrates how reflective practice contributes to improving teaching content, optimizing instructional methods, and enhancing the achievement of course objectives. The findings indicate that reflective teaching should run throughout the entire teaching process. By establishing institutionalized reflection mechanisms and data-support systems, universities can effectively promote continuous course improvement, facilitate teachers' transformation from experience-based practitioners to research-oriented educators, and ultimately enhance the quality of talent cultivation.*

Keywords: *University Courses, Reflective Teaching, Teacher Professional Development, Course Objective Attainment, Case Analysis*

1. Introduction

The contemporary era is characterized by rapid technological innovation and accelerated knowledge renewal. Society increasingly demands high-level innovative talents. As the primary arena for cultivating advanced professionals, higher education directly influences national innovation systems and social development. In the context of technological revolutions, industrial transformation, and educational digitalization, university teaching must move beyond knowledge transmission and focus on cultivating students' learning ability, critical thinking, and creativity [1, 2, 3]. Consequently, improving course teaching quality has become a core issue in higher education reform [4].

In the teaching process, instructors serve not only as designers and organizers of instructional activities but also as direct stakeholders in teaching quality [5]. Teaching effectiveness depends not only on content but also on instructional philosophy, methodology, and classroom management. How to continuously optimize teaching practice in complex and dynamic environments has become a crucial issue in teachers' professional development. Reflective teaching has therefore gained increasing attention as an effective approach [6, 7].

Reflective teaching refers to a rational activity in which instructors systematically examine and deeply analyze their teaching behaviors, processes, and outcomes based on practical experience. It emphasizes self-evaluation and self-correction grounded in practice. Through analyzing instructional problems and identifying improvement strategies, teachers test and refine adjustments in subsequent teaching. Continuous reflection enables instructors to integrate fragmented experiences into relatively stable teaching philosophies and strategies, gradually forming distinctive teaching styles. Therefore, a systematic exploration of reflective teaching in university courses holds important theoretical and practical significance for improving teaching quality, promoting professional development, and achieving educational objectives.

2. Characteristics of Reflective Teaching

The concept of reflective teaching can be traced back to empiricist educational theory. Modern

ISSN 2663-8169 Vol. 8, Issue 3: 12-18, DOI: 10.25236/IJNDE.2026.080302

educational theory emphasizes that professional development is inseparable from reflective practice. Reflection involves examining one's actions in the course of practice and making rational adjustments through systematic analysis. From the perspective of cognitive psychology, reflection is regarded as a metacognitive activity. During the reflective process, teachers focus not only on "what was taught," but also on "why it was taught in this way," "whether it was effective," and "how it can be improved." Such metacognitive engagement contributes to improving the quality of instructional decision-making. From a constructivist perspective, the process by which teachers construct meaning from their teaching experiences is itself a process of knowledge reconstruction. Through reflection, fragmented experiences are transformed into systematic knowledge, enabling the formation of stable instructional strategies.

As a professional mode of thinking, reflective teaching is both practice-oriented and development-oriented [8]. In the context of university courses, reflective teaching mainly demonstrates the characteristics of openness, immediacy, continuity, and practicability.

2.1. Openness

Openness requires teachers to approach teaching from a developmental perspective and to acknowledge that there is always room for improvement [9, 10]. Instructors should proactively update their educational philosophies, attend to student differences, and adapt to changing social demands. Reflective teaching begins with an open attitude. Teachers need to recognize that no single teaching practice can ever be entirely ideal. With the continuous renewal of knowledge systems, changes in student composition, and adjustments in instructional environments, previously effective methods may gradually reveal limitations. Only by maintaining an open mindset and having the courage to acknowledge shortcomings can meaningful instructional improvement occur.

Openness is also reflected in the ongoing examination of teaching philosophy. Teachers should reflect on whether their instructional objectives align with talent cultivation programs and truly embody student-centered principles; whether the teaching content keeps pace with disciplinary frontiers and societal needs; and whether instructional methods effectively stimulate students' active participation. By continuously renewing educational concepts, teachers can prevent rigid thinking and maintain the vitality of their courses.

2.2. Immediacy

Reflective teaching is characterized by a strong sense of immediacy. Problems that arise in classroom instruction are often situational and unexpected. Teachers should promptly capture classroom feedback and conduct preliminary analysis either during or immediately after class in order to prevent the accumulation of unresolved issues. Given the complexity and dynamic nature of instructional contexts, teachers frequently encounter sudden challenges or generate new pedagogical insights. If these experiences are not recorded and examined in a timely manner, valuable insights may quickly fade.

For example, when students demonstrate difficulty understanding a particular concept or show a lack of engagement during explanation, the teacher should promptly analyze the possible causes—whether the explanation lacks logical clarity, the selected examples are inappropriate, or the necessary foundational knowledge is insufficient. Timely reflection enables teachers to adjust strategies effectively in subsequent classes and enhance instructional outcomes.

At the same time, immediacy also involves summarizing successful experiences. When a particular instructional design significantly improves classroom atmosphere or students' comprehension, the teacher should document the conditions and effects of its implementation to inform future practice.

2.3. Continuity

Reflective teaching is not an occasional activity but should become a long-term mechanism in teachers' professional development. The growth of an excellent teacher is essentially a process of continuous alternation between practice and reflection. Through sustained reflection, teachers gradually refine their educational philosophy and develop systematic instructional approaches. Reflection should run throughout the entire course cycle, from pre-class preparation to final evaluation, with corresponding records and improvement plans established at each stage.

Across multiple iterations of a course, teachers may evaluate the effectiveness of instructional improvements through longitudinal comparisons of grade distributions, levels of course objective

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attainment, and student feedback data. Such continuous reflection not only contributes to optimizing course structure but also provides foundational materials for teaching research and reform initiatives. Reflection should encompass instructional objectives, content, methods, assessment, and practical components, thereby avoiding one-sided analysis.

2.4. Practicability

Reflective teaching must be practice-oriented. The ultimate purpose of reflection is to improve instruction rather than remain at the level of theoretical contemplation. Therefore, the outcomes of reflection should be translated into specific and operable instructional measures and tested in practice.

For instance, if reflection reveals low levels of student participation, the teacher may introduce group discussions, case analyses, or interactive classroom activities. If the level of course objective attainment is found to be unsatisfactory, instructional priorities may be adjusted or assessment methods optimized. Only by validating reflective outcomes through practice and forming a virtuous cycle of "practice—reflection—re-practice" can the true value of reflective teaching be realized.

3. Reflective Teaching from the Perspective of Instructional Practice

Teachers can engage in reflection at every stage of course instruction. From instructional preparation to classroom implementation, and from assessment design to the arrangement of practical components, there is always room for improvement [11, 12].

3.1. Reflection on Teaching Content

Teaching content constitutes the core of a course. Instructors should examine whether the content aligns with course objectives, highlights key and difficult points, and reflects current disciplinary developments. If students consistently demonstrate weak mastery in certain knowledge modules, it may indicate problems in content organization or instructional delivery.

By analyzing examination results, assignment completion, and classroom performance, teachers can identify weaknesses within the knowledge structure and strengthen these areas in subsequent instruction. For example, if analysis of course objective attainment reveals that a particular competency indicator is underachieved, instructors should review whether the relevant content has been sufficiently covered and whether adequate opportunities for practice and application have been provided.

In one professional course, analysis of course objective attainment showed that students' "comprehensive analytical ability" had remained below expectations for two consecutive years. Further examination revealed that the course emphasized theoretical instruction while offering limited case application, resulting in insufficient training in real-world problem solving. Based on this reflection, the instructor introduced an integrated case module in the next teaching cycle, incorporating authentic situational problems and organizing group discussions and presentations. As a result, the final course objective attainment improved significantly, and students' performance on comprehensive questions showed marked enhancement. This case demonstrates that data-informed reflection on teaching content enables precise identification of problems and improves outcomes through structural adjustments.

3.2. Reflection on Teaching Methods

Teaching methods play a crucial role in shaping students' learning experiences and classroom engagement. When classroom questioning results in a dull atmosphere or low levels of participation, instructors should engage in reflective analysis of their teaching practices. Such reflection may involve examining whether the questions are sufficiently challenging and thought-provoking, whether the questioning strategies are overly repetitive, and whether students are provided with adequate time to process and respond. Through this reflective process, teachers can better understand the relationship between instructional strategies and students' learning responses, thereby identifying areas for improvement in their classroom practices.

In contemporary higher education, traditional lecture-centered instruction alone often fails to meet students' diverse learning needs and learning styles. Therefore, instructors are encouraged to experiment with a variety of instructional approaches, such as case-based teaching, situational simulations, group discussions, and flipped classroom models. By integrating different teaching strategies and evaluating

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their outcomes through reflective practice, teachers can determine which methods are most effective for specific course objectives and student groups. Continuous reflection also enables instructors to refine their instructional design and create a more engaging and student-centered learning environment.

For instance, during one class session, an instructor observed that students responded passively during classroom questioning. Through post-class reflection, the instructor realized that most of the questions posed were closed-ended, leaving little space for deeper thinking or discussion. In the following class, the instructor redesigned the questioning strategy by introducing open-ended situational questions and providing students with more time to reflect before responding. After this adjustment, classroom discussions became noticeably more active and student participation increased significantly. This example illustrates that reflection on teaching methods often requires careful and incremental adjustments based on actual classroom performance. Through such micro-level improvements, teachers can gradually enhance the effectiveness of their teaching practices.

3.3. Reflection on Instructional Tools and Technology Application

Information technology provides diverse tools for course instruction; however, technology itself does not guarantee teaching quality. Teachers should critically evaluate whether multimedia presentations genuinely facilitate understanding, whether online platforms effectively support learning, and whether technological tools inadvertently distract students' attention. The rational integration of online and offline resources to construct a blended teaching model, along with systematic evaluation of its effectiveness, has become an important focus of reflective teaching.

In one course, an online learning platform was initially introduced primarily for uploading lecture slides and supplementary materials. Student engagement remained low. Upon reflection, the instructor realized that the platform's interactive functions had not been fully utilized. Subsequently, online quizzes and instant feedback mechanisms were incorporated to create an integrated online–offline interaction system. As a result, students' pre-class preparation rates improved, and classroom discussions became more in-depth. This case indicates that technology application should be designed around instructional objectives rather than added superficially as a technical supplement.

3.4. Reflection on Assessment and Practical Components

Course assessment methods should serve the achievement of course objectives. Overemphasis on memorization-based evaluation may neglect competence development. Therefore, instructors should reasonably balance formative and summative assessment according to course objectives. In experimental courses and graduation projects, teachers should also reflect on whether their supervision is adequate and whether practical tasks are sufficiently challenging and innovative. By analyzing the quality of students' outputs, instructors can further optimize practical teaching schemes.

Traditionally, assessment relied heavily on final examinations, leading students to prioritize memorization over conceptual understanding. Through reflective adjustment, the instructor increased the proportion of formative assessment to 40%, incorporating classroom presentations and project reports. After the reform, students invested more consistent effort throughout the semester, engaged more actively in the learning process, and achieved a more balanced distribution of final grades.

Through multidimensional reflection, teachers can gain a comprehensive understanding of their instructional practice and gradually transform from experience-based practitioners into research-oriented and expert educators.

3.5. Reflective Teaching from the Perspective of Students' Learning Conditions

Students' learning conditions constitute an important indicator of course effectiveness. By observing and analyzing students' learning behaviors, teachers can re-examine their own instructional practices from a reverse perspective.

3.6. Observation of Learning Interest and Participation

The level of classroom engagement, frequency of student questioning, and quality of group discussions can all serve as indicators of learning interest. If students generally demonstrate a lack of initiative, it may suggest that the teaching content or instructional approach has failed to effectively stimulate learning motivation. Teachers may use periodic questionnaires, classroom feedback forms, and

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other instruments to understand students' genuine perceptions, and adjust instructional arrangements while respecting students' central role in the learning process.

For example, during the first half of a semester, students participated actively in class, but their enthusiasm declined in the later stages. A questionnaire survey revealed that the increasing difficulty of the content and insufficient connection to practical applications were key factors. In response, the instructor incorporated more real-world cases and interactive activities into subsequent sessions, resulting in a noticeable improvement in classroom atmosphere. This case illustrates that continuous observation of changes in students' interest is crucial for timely instructional adjustment.

3.7. Analysis of Learning Processes and Behaviors

Through systematic observation of assignment completion, the quality of pre-class preparation, and learning trajectory data recorded by online learning platforms, teachers can gain a comprehensive understanding of students' level of engagement. Moreover, such analysis enables instructors to evaluate whether students' learning habits and approaches are scientifically grounded and effective. For instance, by examining assignment submission times, accuracy rates, and the quality of preview notes, teachers can determine whether students rely on last-minute cramming or engage in superficial task completion. Similarly, statistics on platform login frequency, video viewing duration, and interaction records provide insight into students' persistence and concentration during self-directed learning.

If analysis reveals that students' completion rates for certain tasks are consistently low or that participation is insufficient, teachers need to reflect on whether task objectives are clearly defined, whether the difficulty level is appropriate, whether instructional formats are overly monotonous, and whether tasks align with students' cognitive levels and learning needs. Such reflection provides a basis for subsequent improvement.

In practice, in-depth analysis of online learning platform data revealed that although some students completed video viewing tasks, they did not participate in the corresponding in-class quizzes, making it difficult to assess knowledge mastery effectively. Upon reflection, the instructor recognized that requiring only "video watching" without formative assessment constraints allowed students to complete tasks superficially. Consequently, in subsequent instructional adjustments, video viewing was integrated with mandatory online quizzes, and both components were incorporated into the formative assessment system to create a closed-loop learning structure. After this modification, quiz completion rates and student engagement improved significantly, and learning outcomes became more visible and measurable. This case demonstrates that data-driven reflective teaching not only uncovers problems in learning behaviors but also promotes the development of more structured and proactive study habits through institutional optimization.

3.8. Evaluation of Learning Outcomes

Students' grade distributions, levels of course objective attainment, and improvements in competencies are important indicators of instructional quality. Through systematic organization and comparative analysis of midterm, final, and formative assessment data, teachers can evaluate teaching effectiveness more objectively. For example, if attainment levels related to comprehensive analytical ability or practical application skills are low, it may indicate that classroom instruction overemphasizes knowledge transmission while neglecting competence development. Furthermore, both longitudinal and cross-sectional comparisons of grade structures help identify common issues in the instructional process, thereby providing data support for teaching improvement.

In one periodic examination, the grade distribution showed clear polarization, with relatively high proportions of both high and low scores and comparatively few mid-range performers. Reflection revealed that the difficulty gradient of the examination questions was not well designed; the transition between basic and advanced questions lacked coherence and failed to form a progressive structure. In response, the instructor restructured the examination by clearly distinguishing three levels—foundational, advanced, and integrative application—allowing students at different levels to demonstrate their abilities appropriately. After this adjustment, the grade distribution became more balanced, and the diagnostic function of assessment was strengthened.

3.9. Establishing Dialogue and Communication Mechanisms

Constructing smooth and effective communication channels between teachers and students is an

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essential guarantee for continuous course improvement [13-15]. By establishing regular communication mechanisms—such as midterm forums, learning feedback questionnaires, and after-class discussions—teachers can gain a more comprehensive understanding of students' authentic experiences and practical needs during the learning process. Conducting reflection on this basis helps identify shortcomings in classroom organization, content arrangement, or instructional methods, thereby enabling targeted optimization.

The establishment of communication mechanisms ensures that teaching improvement is not based solely on unilateral teacher judgment, but rather on bidirectional interaction and shared participation. For example, during a midterm discussion session, several students suggested increasing the number of case explanations to facilitate understanding of abstract theoretical concepts. After reflection, the instructor adopted this suggestion and incorporated more practical and representative cases into subsequent classes, strengthening the connection between theory and practice. Following this adjustment, students' classroom participation and satisfaction increased significantly. This example demonstrates that an equal and open dialogue atmosphere enhances students' willingness to express their views, contributes to course optimization, and strengthens their sense of identification and belonging within the course.

4. Conclusions

Reflective teaching constitutes an important pathway for improving the quality of university course instruction and serves as a key mechanism for promoting teachers' professional development and enhancing overall curriculum quality. By integrating theoretical guidance with practical exploration, and by engaging in reflective activities that are open, timely, continuous, and practice-oriented, teachers are better able to identify existing problems, optimize instructional structures and content, refine teaching methods, and ultimately improve the attainment of course objectives.

In the context of ongoing and deepening reforms in higher education, it is necessary to further strengthen the institutional development of reflective teaching, ensuring that it becomes systematized and normalized as an integral component of quality assurance systems. Universities can support teachers' reflective practice through mechanisms such as teaching quality monitoring systems, course objective attainment analysis, and teaching research initiatives. Only through a virtuous cycle of practice and reflection can university teaching continue to innovate and develop, thereby more effectively serving the cultivation of high-quality, innovative talents..

Acknowledgements

This study was funded by the Industry-Academia Cooperation and Collaborative Education Project, Ministry of Education, China (grant number 220604213284825).

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