

# Research on Reconstruction and Application of Blended Teaching Quality Evaluation System under “New Economics and Management” Strategy

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**Abstract:** Based on the problems and deficiencies of the existing blended teaching quality evaluation index system, this study puts forward the principle of reconstructing the blended teaching quality evaluation system under the strategy of “New Economics and Management”, and constructs a blended teaching quality evaluation system that serves the strategy of “New Economics and Management” in seven aspects, namely, teaching concept, teaching content, teaching means, teaching method, teaching service, teaching management, and teaching guarantee, in order to provide the basis of the school’s blended teaching reform.

**Keywords:** New economics and management; Blended teaching; Quality evaluation; Indicator system.

## 1. Introduction

With the accelerated development of digitalization and the arrival of the post epidemic era, blended teaching has rapidly spread and become one of the mainstream modes of teaching in higher education institutions. Internet-based blended teaching mode uses online platform and offline classroom to complete teaching tasks, which contains both face-to-face teaching in traditional classroom and students’ independent learning on network teaching platform, optimizes the single teaching environment, enriches the teaching content and improves the quality of teaching, which has the advantages that traditional classroom can’t surpass, and is the active exploration of actively adapting to the change of learning mode in the Internet era.

At present, the development of blended teaching is not yet mature, and the teaching mode, curriculum design, and participation methods are still in the stage of exploring and deepening, and a supporting evaluation system must be established for the high-quality implementation of blended teaching. Due to the differences in the talent cultivation mode of different disciplines and professional courses, the construction and implementation of the blended teaching quality evaluation system is a long-term, arduous and dynamic systematic project, which requires extensive and in-depth research on the blended teaching quality evaluation system, as well as bold exploration and practice. Therefore, in the context of promoting the development strategy of “New Economics and Management”, exploring the reconstruction of blended teaching quality evaluation system and evaluating the current blended teaching quality in all aspects can help to deepen the effective supervision of blended teaching and promote the high quality of teaching reform.

The relevant research on blended teaching mainly focuses on the following three aspects: first, the research on the connotation and cognition of blended teaching, and the existing studies generally agree that blended teaching significantly improves students’ communication ability and innovation ability (Merete et al., 2018) [1], and obtains a greater sense of psychological satisfaction than the traditional

teaching program (Laura et al., 2015) [2]. The second is the research on blended teaching quality evaluation, Zhang Jian et al. (2022) constructed a blended teaching quality assurance system from four aspects: curriculum construction, teaching process, teaching effect, and teaching improvement[3], Guo Jiandong (2020) constructed a diversified blended teaching quality evaluation system focusing on the process and focusing on development[4]. Third, the research on blended teaching implementation strategy, there have been studies that propose to optimize the quality of blended teaching from the blended teaching awareness and teaching implementation stages (Charles et al., 2013; Wendy et al., 2014) [5, 6].

The existing literature provides important reference for this study, but the evaluation of blended teaching quality still lacks a unified standard, lacks a systematic and authoritative evaluation index system, and the existing blended teaching quality evaluation system analyzes fewer key indexes such as course objectives, course ideology, teaching team, and so on, which needs to be further improved. In the context of the development strategy of “New Economics and Management”, the quality of blended teaching urgently needs a set of targeted evaluation system to ensure the effective promotion of blended teaching activities. This study takes the development strategy of “New Economics and Management” as a guide, explores the reconstruction of the evaluation system of blended teaching quality, continuously promotes the deep integration of information technology and education teaching, and continuously improves the quality of blended teaching.

## 2. Problems with the Blended Teaching Quality Evaluation Index System

The current hybrid teaching quality evaluation system is not yet perfect, and there are mainly problems such as single evaluation perspective, incomplete evaluation object, incomplete evaluation subject, and insufficient process evaluation.

First, the evaluation perspective is single. The existing blended teaching quality evaluation index system is not sufficient for the evaluation of online and offline teaching. Either it emphasizes the evaluation of the online teaching

platform or focuses on the evaluation of the quality of offline traditional teaching, while there are fewer relevant studies that combine online and offline for unified evaluation, resulting in evaluation results that do not reflect the characteristics of blended teaching.

Second, the evaluation object is not comprehensive. The existing evaluation index system of blended teaching quality focuses on the evaluation of teachers' teaching, while the evaluation of students' learning, teaching resources and teaching environment is insufficient.

Third, the evaluation subject is not comprehensive. The existing blended teaching quality evaluation index system mainly collects index data from teachers, while the participation of other subjects such as students and teaching administrators is insufficient, leading to the subjectivity and one-sidedness of the evaluation results.

Fourth, the indicator setting is not comprehensive. The existing blended teaching quality evaluation index system emphasizes various types of quantitative measurement indexes such as learning achievement and learning hours, while ignoring qualitative indexes such as learning effect, learning attitude and learning experience, so the evaluation of blended teaching quality is not comprehensive.

Fifth, the process evaluation is insufficient. The existing blended teaching quality evaluation indexes emphasize whether the students' performance meets the expected teaching goals, while the evaluation of teaching quality in the teaching process is insufficient, for example, the number of times students log in to the platform, the length of learning, the number of interactions, etc., which results in the evaluation results not being able to comprehensively reflect the performance and progress of the students in the learning process.

### **3. Principles of Reconstructing the Blended Teaching Quality Evaluation System under the "New Economics and Management" Strategy**

The four elements of blended teaching include students, teachers, resources, and environment; students are the core of blended teaching and teachers are the implementers of blended teaching. Teachers and students are connected through teaching resources, teachers utilize all kinds of teaching resources to carry out teaching, and students acquire knowledge through receiving all kinds of teaching resources. At the same time, teachers and students can't carry out blended teaching without suitable teaching environment, including online platform teaching environment and offline traditional classroom teaching environment. Based on the four elements of blended teaching, we put forward the principles of reconstructing the quality evaluation system of blended teaching under the strategy of "New Economics and Management", including the principle of combining course evaluation and feedback evaluation, the principle of combining result evaluation and process evaluation, the principle of diversification of evaluation subjects and evaluation indexes, and the principle of comprehensiveness of evaluation content and evaluation indexes.

#### **3.1. Principle of Combining Course Evaluation and Feedback Evaluation**

Evaluation of the blended course is the focus of the

construction of the teaching quality evaluation index system, which is the core of the construction of high-quality blended courses. On the basis of comprehensive evaluation of the course, it also focuses on the feedback evaluation of teaching. Feedback evaluation mainly focuses on students' satisfaction and feedback on teaching, in order to understand students' learning needs and learning satisfaction, and provide a basis for teaching improvement. Among them, for the feedback evaluation of teaching content, the index system can be constructed from the aspects of accuracy, applicability, richness and updating. For the feedback evaluation of teaching means, the evaluation index system can be constructed from the aspects of video quality, interaction quality, assessment quality and learning effect. Therefore, combining course evaluation with feedback evaluation can comprehensively assess the quality of blended teaching and provide scientific basis for blended teaching improvement.

#### **3.2. Principle of Combining Result Evaluation and Process Evaluation**

When building the blended teaching quality evaluation index system, it is necessary to pay attention to the evaluation of teaching results and also emphasize the evaluation of the teaching process, in which the evaluation indexes of teaching results include, students' midterm test scores, students' final exam scores, etc. The evaluation indexes of the teaching process include, students' learning hours, completion of learning nodes, teachers' Q&A hours, teachers' postings, students' answering questions number of times, classroom test scores, the number of times teachers ask questions, the number of times they summarize, etc. The combination of process evaluation and result evaluation can reflect the progress and growth of students and realize the construction of student-centered evaluation index system.

#### **3.3. Principle of Diversification of Evaluation Subjects and Evaluation Indicators**

Teachers, students and teaching managers are all important subjects in blended teaching, therefore, when constructing the blended teaching quality evaluation index system, not only should we measure the teacher-related indexes, but also establish diversified evaluation indexes around students and teaching managers. Among them, for the student body, the first-level indicators of teaching services are introduced to measure the quality of teaching services with the indicators of learning resources, learning support, learning assessment, and student services. For teaching managers, the first-level indicators of teaching management are introduced to measure teaching management by teaching organization management, teaching administration management, curriculum management, practical teaching management, teaching research management, and examination and achievement management.

#### **3.4. Principle of Comprehensive Evaluation Content and Evaluation Indicators**

First of all, the selection of evaluation indicators should cover the four elements of blended teaching, such as students, teachers, resources, and environment, to ensure that each element has a corresponding indicator system that comprehensively reflects the quality of teaching. Secondly, the selection of evaluation indicators should cover the whole process of pre-course preparation, classroom teaching and post-course counseling to ensure the accuracy and

completeness of the evaluation of each link of blended teaching. Finally, it is necessary to design the indicator system in a targeted way for the characteristics of different courses, as well as different types of students, and provide personalized evaluation schemes to meet the needs of teaching quality evaluation of different courses and comprehensively reflect the evaluation needs of different types of students.

#### **4. Reconstruction of Hybrid Teaching Quality Evaluation System under the Strategy of “New Economics and Management”**

According to the “Overall Program for Deepening Educational Evaluation Reform in the New Era”, using the principle of combining curriculum evaluation and feedback evaluation, the principle of combining result evaluation and process evaluation, the principle of diversification of evaluation subjects and evaluation indexes, and the principle of comprehensiveness of evaluation contents and evaluation indexes, and based on the “new” connotation of “New Economics and Management” strategy, the quality evaluation system is reconstructed from teaching concept, teaching content, teaching methods, teaching mode, teaching service and teaching quality. Based on the connotation of “new” in the development strategy of “New Economics and Management”, the index system of hybrid teaching quality evaluation is reconstructed from seven aspects, including teaching concept, teaching content, teaching means, teaching method, teaching service, teaching management and teaching guarantee.

Among them, the first-level indicators include teaching philosophy, teaching content, teaching methods, teaching approach, teaching service, teaching management, and teaching guarantee. The second-level indicators of teaching philosophy include teaching goal, teacher’s role, and teaching development; the second-level indicators of teaching content include accuracy, applicability, richness, and updating; and the second-level indicators of teaching methods include video quality, interactive quality, assessment quality, and learning effect; The secondary indicators of teaching methods include students’ online session, teachers’ online session, students’ offline session, teachers’ offline session; the secondary indicators of teaching services include learning resources, learning support, learning assessment, and student services; the secondary indicators of teaching management include teaching organization and management, teaching administration and management, course management, practical teaching management, teaching research management, and examination and achievement management; the secondary indicators of teaching guarantee include teaching team guarantee, technology guarantee, and technology guarantee. The secondary indicators of teaching management include teaching organization management, teaching administration management, course management, practice teaching management, teaching research management, examination and achievement management; the secondary indicators of teaching guarantee include teaching team guarantee, technology guarantee, financial guarantee

and resource guarantee, see Table 1.

#### **5. Path to Improve the Quality of Blended Teaching under the Strategy of “New Economics and Management”**

In the design of blended teaching mode, students and their learning evaluation should be at the center, and course design, teaching methods, discussion, practice, testing, learning evaluation and so on should be the important components of teaching objectives. Based on this, the quality improvement of blended teaching should be student-centered, including short-term, medium- and long-term development phases, so as to promote the improvement of blended teaching and push forward the strategy of “New Economics and Management” to a deeper level.

##### **5.1. Pre-course Preparation Stage**

The pre-course preparation stage is mainly accomplished through the online teaching platform. First of all, the analysis of the learning situation of the course is carried out to help teachers fully understand the learning situation, characteristics and needs of the students, so as to provide a basis for the design and implementation of teaching and improve the quality and effect of teaching. Teachers design and release questionnaires on the online platform, which are answered by students, with the purpose of understanding the students’ way of thinking, interests, learning styles, knowledge background, and mastery of course-related content. Thus, the course content can be better designed. Secondly, the teacher releases the pre-study content of the course on the online platform, including video materials, PPT and other kinds of teaching resources, and sets corresponding task nodes, which are independently studied by students and answered by the corresponding task nodes. Teachers export the relevant data and conduct visual analysis, so as to grasp the students’ pre-study of the course content.

##### **5.2. In-class Teaching Stage**

The in-class teaching phase is completed with the help of the online teaching platform and offline classroom teaching, with the offline classroom teaching as the main focus, making full use of the advantages of the online platform and the offline classroom, and integrating the two organically. Based on the analysis of students’ learning conditions in the pre-course preparation stage, the content of offline classroom teaching is precisely designed. First of all, while adopting traditional classroom teaching methods, we make full use of the Internet resources in the process of classroom teaching to display cases and play videos, which makes classroom teaching more vivid and vivid, and improves the interest. Secondly, the problems found in the pre-course preparation stage and the students to focus on communication and interaction to make full use of the Internet platform industry classroom computer screen, to take the initiative of the students to answer the question, the system randomly ask questions, the students submit the answer online and other ways of human-computer interaction, targeted analysis and problem solving.

**Table 1.** Reconstruction of blended teaching quality evaluation system under the strategy of "New Economics and Management"

First-Level Indicators	Second-Level Indicators	Connotation of Indicators
Teaching Philosophy	Teaching Objectives	Whether the teaching objectives are in line with students' learning goals and satisfy students' learning interests
	Teacher Role	Whether the teacher's role as a facilitator in blended learning is clearly defined
	Teaching Development	Attention to student feedback on blended learning and development of instructional technology
Teaching Content	Accuracy	Whether the blended learning content is accurate and meets the teaching objectives
	Applicability	Whether the blended content matches the learning abilities of students
	Enrichment	Whether the blended content is consistent with covering a broad range of knowledge
	Updatability	Whether the blended content is up-to-date and reflects the latest subject developments
Teaching Tools	Video Quality	Clarity, accuracy, vividness, logic, etc. of the videos
	Interaction Quality	Interaction between teachers and students, and between students and students
	Quality Of Assessment	Accuracy and reasonableness of blended teaching assessment
	Learning Effect	Whether the expected teaching objectives are achieved and whether students' interest in learning is increased
Teaching Methods	Students' Online Sessions	Students' learning hours, completion of learning nodes
	Teachers' Online Session	Teachers' Q&A hours, teachers' postings
	Students' Offline Session	Number of times students answered questions, classroom test scores
	Teachers' Offline Sessions	Teachers' questions and summaries
Teaching Services	Learning Resources	Provide teaching materials and multimedia resources, etc.
	Learning Support	Provide learning counseling, guidance and Q&A support
	Learning Assessment	Assessment of students' learning progress and understanding of students' learning status
	Student Services	Counseling on course content, study plans, and course requirements
Teaching Management	Teaching Organization Management	Teaching plan, syllabus, teaching schedule, etc.
	Teaching Administration Management	Management of student registration, grade management, examination management, certificate management, etc.
	Curriculum Management	Management of curriculum, course selection management, credit management, etc.
	Practical Teaching Management	Management of experimental internship, course design, graduation design, etc.
	Teaching And Research Management	Management of research projects, curriculum construction, teaching method reform, etc.
	Examination And Grade Management	Management of examination arrangement, grade evaluation, make-up examination, etc.
Teaching Security	Teaching Team Security	Teachers' professionalism, teaching level, teacher ethics and morals, etc.
	Technological Security	The utilization of teaching equipments
	Financial Security	The investment, utilization and management of teaching funds
	Resources Security	Security of the use of teaching materials, teaching aids and library materials

### 5.3. After-school Counseling Stage

The post-course counseling stage is mainly completed with the help of online teaching platform. First of all, the teacher releases the post-course exercise assignments on the online platform, the students complete the assignments by hand and submit them on the online platform, and encourage students to fully discuss and exchange on the platform, share learning tips and experiences with each other, and ask and answer

questions to each other; at the same time, the corresponding extracurricular extended reading tasks are arranged to guide the students to conduct in-depth thinking, cultivate the students' learning ability and innovative consciousness, and the students complete the corresponding tasks on their own. Task nodes. Secondly, the teacher reviews the assignments online, answers questions about the assignments and discusses with the students. Finally, the teacher will

summarize and analyze the communication, browsing, homework scores and other relevant data on the online platform to grasp the students' post-course learning situation and identify the weak links in the post-course tutoring stage, so as to summarize and improve the teaching process, thus improving the students' learning efficiency and satisfaction.

## 6. Conclusions

In the context of the university vigorously implementing the development strategy of "New Economics and Management" and generally adopting blended teaching combined with online and offline teaching, exploring the reconstruction of the blended teaching quality evaluation index system can help to further promote the teaching reform and improve the closed-loop mechanism of monitoring, feedback and improvement of blended teaching quality. The main research conclusions are as follows: the current hybrid teaching quality evaluation system mainly exists problems such as single evaluation perspective, incomplete evaluation object, incomplete evaluation subject and insufficient process evaluation. Based on the four elements of blended teaching, we put forward the principles of reconstructing the blended teaching quality evaluation system under the strategy of "New Economics and Management", including the principle of combining course evaluation and feedback evaluation, the principle of combining result evaluation and process evaluation, the principle of diversifying the evaluation subjects and evaluation indexes, and the principle of comprehensive evaluation content and evaluation indexes. Reconstruct the index system of blended teaching quality evaluation from seven aspects: teaching concept, teaching content, teaching means, teaching method, teaching service, teaching management and teaching guarantee. The path to improve the quality of blended teaching under the strategy of "New Economics and Management" is proposed in three stages: pre-course preparation, in-course teaching and post-course counseling.

Based on the above research findings, this paper gets the following suggestions: First, a systematic approach to the evaluation index system of blended teaching has been constructed, and the blended teaching quality evaluation system reconstructed on the basis of the "New Economics and Management" strategy has the features of executability,

detectability, convenience and generalizability, which can be used as an important reference for evaluating the quality of blended teaching in schools. Second, the proposed path to improve the quality of blended teaching under the "New Economics and Management" strategy can provide suggestions and directions for similar institutions to improve the construction of blended courses and the quality of blended teaching.

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