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# This Paper Analyzes the Construction of Teaching Evaluation Management Model of Artificial Intelligence

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**Abstract:** With the rapid development of artificial intelligence technology, part of teaching evaluation has been quantitatively developed under this technology, so as to improve the accuracy of teaching guidance and provide technical support for the overall development of students. In this process, in order to improve the teaching work, the teaching management evaluation model has been built on the basis of big data technology and artificial intelligence technology, and this model has been used for teaching guidance in the process of teaching evaluation, so as to improve the teaching effectiveness of actual teachers and lay the foundation for students to improve themselves and core literacy. In this process, under the background of education 2.0, teachers should apply the artificial intelligence education evaluation management model and know the significance of its application in teaching evaluation, so as to improve the significance of teaching evaluation in teaching evaluation, so as to improve the significance of teaching evaluation in teaching evaluation, so as to improve the effectiveness of teaching evaluation and provide guarantee for guiding the improvement of students' literacy and ability. Based on this, based on the significance of teaching evaluation under the background of artificial intelligence, this paper analyzes the construction of teaching evaluation management model of artificial intelligence for reference. **Keywords:** Artificial intelligence; Teaching evaluation management model; Model construction

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Quotation: Teaching evaluation is the core content of teaching management, and the results of teaching evaluation can provide the basis for the smooth development of teaching system and teaching assessment. Therefore, in teaching, teachers should carry out teaching design according to teaching evaluation. In the design of teaching evaluation under the background of big data, the construction of artificial intelligence teaching evaluation management model should be used for reference to carry out teaching evaluation, so that students can carry out comprehensive development in personalized evaluation, so as to improve the effectiveness and pertinence of their own learning.

# 1. The significance of teaching evaluation in the context of artificial intelligence

First, artificial intelligence provides more accurate and comprehensive data support for teaching evaluation. The traditional teaching evaluation method is often limited by manpower and time, and it is difficult to collect and analyze students' learning data comprehensively and carefully. Artificial intelligence technology can collect students' learning data in real time and accurately through automated and intelligent means, including learning duration, learning progress, homework completion, test scores, etc., so as to provide more abundant and accurate information for teaching evaluation<sup>[1]</sup>.

Secondly, artificial intelligence can improve the immediacy and feedback speed of teaching evaluation. Under the traditional teaching evaluation method, teachers often need to spend a lot of time and energy to sort out and analyze students' learning data, which leads to a slow feedback speed of evaluation, and it is difficult to guide students' learning in time. Artificial intelligence technology can process and analyze students' learning data in real time to provide teachers with instant teaching feedback, so that teachers can adjust teaching strategies more quickly to meet students' personalized learning needs.

Finally, the teaching evaluation in the context of artificial intelligence helps to promote the scientific evaluation method of

education. The traditional educational evaluation methods often pay too much attention to the single examination results, ignoring the comprehensive quality and innovative ability of students. Artificial intelligence technology can make educational evaluation more comprehensive and scientific through diversified evaluation indicators and intelligent evaluation methods. For example, through the automatic evaluation of students' learning behavior, cooperation ability, innovative thinking and other aspects, students' comprehensive ability and quality can be reflected more objectively.

## 2. Construction of teaching evaluation management model of artificial intelligence

When constructing the teaching evaluation management model of artificial intelligence, we should make full use of the technical advantages of artificial intelligence to achieve a more objective, comprehensive and timely evaluation. First, data collection and preprocessing: Artificial intelligence technology is used to collect all kinds of data in the learning process of students, such as homework completion, online test results, learning time, etc. At the same time, data is preprocessed to eliminate noise and outliers and ensure the accuracy and reliability of data <sup>[2]</sup>.

Second, personalized evaluation: Based on big data and artificial intelligence technology, in-depth analysis of students' learning behavior, aptitude and personality characteristics is conducted to provide personalized evaluation for each student. This helps to understand the students' learning status more accurately, and provides a basis for the subsequent teaching improvement.

Third, real-time feedback and adjustment: Through the intelligent analysis system, students' learning progress reports and diagnostic results are generated in real time to provide teachers with timely feedback. At this time, teachers can adjust teaching strategies according to these information and provide students with more targeted guidance.

Fourth, multiple evaluation: in addition to the traditional test results, students should also pay attention to the performance in the learning process, cooperation ability, innovative thinking and other aspects. Therefore, through artificial intelligence technology, automatic evaluation of these aspects can be achieved, making the evaluation more comprehensive and objective.

Fifth, the integration of evaluation and teaching: the evaluation is closely combined with the teaching process, so that evaluation becomes a part of teaching improvement. By analyzing the evaluation results, teachers can find the deficiencies and problems in teaching, and then adjust the teaching plan and method to improve the teaching effect.

Sixth, privacy protection: When constructing the evaluation management model, relevant laws and regulations should be strictly observed to ensure the privacy and security of student data. At the same time, effective measures should be taken to prevent data leakage and abuse.

Through the above steps, an AI-based teaching evaluation management model can be constructed to achieve a comprehensive, objective and timely evaluation of students' learning process and provide strong support for teaching improvement.

# 3. Application of teaching evaluation management model of artificial intelligence

## 3.1 Optimize evaluation methods

#### 3.1.1 Assessment of learning status before class

The focus of classroom teaching evaluation is to evaluate students' basic situation, knowledge level and ability base. Through testing and analysis of students' learning motivation and learning style, teachers can better understand their academic status and help them better formulate educational goals. In the environment of artificial intelligence, a variety of evaluation methods can be adopted for different assessment items, and evaluation methods for various assessment items can be proposed by referring to relevant materials. On this basis, teachers can use the artificial intelligence platform combined with the analysis of students' characteristics and course content to propose a more targeted course design scheme.

#### 3.1.2 Classroom formative assessment

Formative assessment can effectively check students' learning process and learning behavior, and improve them accordingly. In the information environment, formative evaluation methods mainly include observation method, test method and real-time evaluation method based on classroom feedback system. In addition, corresponding evaluation tools can also be developed according to the actual situation of the class. Through the final evaluation of students, it can be found that teachers effectively evaluate students in class, and the evaluation methods mainly include: Student self-evaluation, student mutual evaluation, teacher evaluation of their classmates. Teachers evaluate students 'learning situation and experts evaluate and analyze students' learning level, which can carry out comprehensive evaluation in professional aspects, classroom teaching, students' actual situation and other comprehensive aspects.

#### 3.2 Innovative teaching methods

Educational methods, also known as educational strategies or skills, refer to the ways and approaches taken to achieve certain

goals in educational activities. The content of the course can be divided into ideas, facts, principles, abilities, problems, etc. In the application environment of artificial intelligence technology, teachers can carry out appropriate teaching for different courses. According to the specific course content and the characteristics of the classroom situation, you can choose the corresponding way. For example, question-based teaching, simulation and game-based learning are suitable for question-based teaching, while lecturebased learning is suitable for conceptual learning. At the same time, teachers can combine various methods with the characteristics of teaching materials to make the class lively and interesting.

## 3.3 Improve student evaluation

Students' learning evaluation can well reflect their learning level, so teachers can use artificial intelligence platform to collect data on students' actual learning situation, and in this process, carry out mixed teaching mode, combine online and offline, and conduct comprehensive, multi-angle, diversified and three-dimensional evaluation on online and offline data to evaluate students' learning status.

Through the analysis of the experimental results, the main factors affecting the non-class state are obtained, and the main factors affecting the non-class state are given. By using the artificial intelligence education management evaluation model, the comprehensive representation scores of one class, one semester and other levels are obtained. In the feedback of the artificial intelligence education management evaluation model, Teachers can know students' enthusiasm and initiative in learning, learning attitude, effort level and learning effect, and evaluate their learning through process tests to give them more objective learning evaluation. To predict students, and timely intervention, the implementation of individualized education. In addition, students can also conduct self-reflection, understand their own shortcomings, and conduct targeted follow-up teaching to improve teaching methods.

## **Closing remarks**

All in all, teaching evaluation under the background of artificial intelligence is of great significance in the improvement of teaching quality, the transformation of teaching methods, and the improvement of teaching environment. By making full use of the advantages of artificial intelligence technology, relevant personnel can build a more scientific, comprehensive and immediate teaching evaluation system to promote the continuous progress and development of education.

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