Internet plus -based Micro-monitoring Platform Teaching Monitoring Method

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Abstract. Traditional teaching quality monitoring is a relatively static inspection process, while teaching activities are a continuous and dynamic process. Therefore, exploring an effective, continuous and dynamic process teaching quality monitoring method, improving the effectiveness of teaching quality monitoring, and promoting the continuous improvement of teaching quality(TQ) is an important issue facing teaching management departments. The purpose of this article is to study the teaching monitoring method of micro-learning platform based on Internet +. In terms of methods, it is proposed to reform the teaching evaluation system, improve the efficiency of TQ monitoring, and ensure the effectiveness of TQ and staff training. Four improvement measures are proposed, including the three-level department lecture system and teaching supervision system, the implementation of teaching supervision system, and the establishment of a TQ information feedback system to improve the effectiveness of teaching monitoring. The data are found, and it is found that the improved monitoring method proposed in this paper is more effective than the original teaching method of micro-learning platform. Based on student feedback, I hope to promote the monitoring method proposed in this article.

Keywords: Teaching Quality Monitoring, Teaching Management, Teaching Monitoring Methods, Micro-lecture Platform

1. Introduction
In the context of vigorously implementing "Made in China 2025", we should pay more attention to the quality of higher vocational education, strive to train more outstanding talents, and make breakthroughs in building a diversified, systematic, and comprehensive monitoring platform. Although on the whole, many higher vocational colleges rely on the campus network, based on the B/S platform, using big data technology to design, so that all aspects of teaching in higher vocational colleges have been included in the monitoring platform, and have achieved certain achievement. However, with the rapid development of information technology, there is a weak connection between the TQ monitoring platforms of some higher vocational colleges, especially the lack of pertinence and effectiveness.

As an information product, a platform to monitor the quality of teaching is an important strategic measure of the Internet plus education. The TQ monitoring platform can realize all teaching activities,
teaching links, various teaching management systems, and teaching reform programs. Through the supervision of daily teaching activities, data preservation and evaluation of teachers' TQ are carried out. Improve teaching resources, save teaching costs, optimize teaching resources, and check TQ. Use assessment diagnostics to improve TQ. Therefore, we should actively explore new ideas and new measures for TQ monitoring platforms. Design in the new situation, and strive to achieve innovative support for function expansion and TQ monitoring platform.

In terms of methods, it is proposed to reform the teaching evaluation system, improve the efficiency of TQ monitoring, and ensure the effectiveness of TQ and staff training. Four improvement measures are proposed, including the three-level department lecture system and teaching supervision system, the implementation of teaching supervision system, and the establishment of a TQ information feedback system to improve the effectiveness of teaching monitoring.

2. Method

2.1 Reform the Teaching Evaluation System
The TQ evaluation system, especially the evaluation index system, reflects the manager's overall knowledge and basic grasp of school TQ [1, 2]. Different starting points lead to different choices of the index system, and it is difficult to find an index system that can satisfy all parties. Therefore, it is a controversial issue for the parties to determine the evaluation indicators. However, under the guidance of the "student-centered" educational philosophy, results-oriented and graduate-oriented work are generally supported [3]. The teaching status database can fully reflect the TQ and effect of colleges and universities. On the basis of the national higher education quality monitoring data platform index system can improve the operational efficiency of TQ monitoring, ensure TQ and level Culture effect [4, 5].

2.2 Establish a Three-Level Lecture System
The dean of the college, the head of the department, and the head of the teaching research department regularly or irregularly participate in classroom teaching and on-site training to fully understand the teaching of teachers and the learning of students. The teaching and research section organizes teachers to listen and evaluate each other's lessons [6].

2.3 Establish Teaching Inspection System
One week before the start of school, the Academic Affairs Office and Department should check the teaching preparations [7]. After the school starts, we must adhere to the system of combining regular teaching inspections with random sampling, and carry out major teaching inspections in the middle and late stages. In addition, it is necessary to strengthen the inspection of special subject teaching and practical teaching links, especially to hire industry experts and entrepreneurs to strengthen the inspection of practical teaching links such as practical teaching, practice, curriculum design, graduation thesis, thesis defense [8, 9]. Correct deviations in a timely manner through inspections and improve the quality of work accordingly.

2.4 Implementation of Teaching Supervision System
The teaching supervision system should be composed of teachers and experts with rich teaching management experience, reputation and teaching ideas [10, 11]. The role of supervision should be the "think tank" and "high-level participation" of leaders of higher vocational colleges [12].

2.5 Establishing a TQ Information Feedback System
Quality information system is to track and feedback various information in teaching process and graduate employment practice. On the one hand, it absorbs and analyzes various kinds of information, and guides the teaching process in a timely and effective manner; on the other hand, it receives and analyzes the demand information of the talent market and the graduate's adaptability to the job,
thereby improving the purpose of talent training Adaptability. In order to ensure the effective operation of the entire teaching process, the teaching information system must be smooth, efficient and sensitive. The system includes: the teaching administrative leadership information feedback system, which is mainly composed of the director of the teaching and research office, the heads of various sections, and the director of the teaching affairs; the teaching information feedback system, and the teaching management organization; Student information feedback system, mainly composed of class student information staff, student union learning department and teaching office. In large social systems, expert-led two-way information tracking and feedback systems are used for the quality of talent, entrepreneurs and employers of professional building steering committees or joint educational institutions.

3. Experiment

3.1 Experiment Purpose
This paper studies the effectiveness of the improved Internet + micro-learning platform teaching monitoring method proposed in this paper.

3.2 Subjects
Two classes in the college of a higher vocational college.

3.3 Experimental design
By conducting relevant experiments on two classes of a college in a vocational college, using the supplementary lessons as free benefits during the summer vacation, the traditional "Internet + education" and the "Internet + education" micro-lecture teaching proposed in this article are respectively taught. The platform combines online and normal education. The traditional "Internet + education" is used as a control class, and the "Internet + education" teaching platform improved in this article is an experimental class. There are 50 students in each class, the average grades are similar, and the teachers are invited from outside, and the level is similar. Classes are usually simulated in accordance with the school's schedule. Classes are held five days a week, four classes in the morning, and two classes in the afternoon. Lessons in both classes are consistent. After returning home from the experimental class, the teachers will assign homework and check it next time. In the control class, homework is assigned by the teacher on the teaching platform after returning home from class, and is corrected using the auxiliary composition correction software. Usually on weekends, teachers will send some related learning materials. Finally, I maintained the mathematics teaching for 8 weeks, and conducted a bottom test before and after the teaching to check the changes in learning effects. After the end, a questionnaire survey was conducted on each student to check their satisfaction.

4. Discussion

4.1 Promote the Function Expansion of the TQ Monitoring System Platform
As an important part of the "digital campus" of higher vocational colleges, the TQ monitoring system platform should be continuously expanded in the design process so that it can play a more active role. This requires higher vocational colleges to incorporate the TQ monitoring system platform into the "digital campus" system, and is committed to building a "reasonable and practical" TQ monitoring system platform, which must be used as teaching management, supervision, assessment, It is an important basis for evaluation, reward and punishment, and it must also be incorporated into the education reform system of higher vocational colleges. It will further expand the function of the TQ monitoring system platform so that it can improve TQ, innovative teaching models, and improve teaching methods Achieve new breakthroughs.
Table 1. Pre- and post-learning levels of experimental and control classes

|                  | Average grade | Average grade | Passing number of experimental classes | Number of passers in the control class |
|------------------|---------------|---------------|----------------------------------------|----------------------------------------|
| Before studying  | 77.2          | 76.9          | 43                                     | 42                                     |
| After studying   | 81.3          | 83.5          | 48                                     | 49                                     |

The experimental group average score was 0.3 points higher than the average in the control class, and the number of passing students was 1 more than the control class. Each. And the pass rate of both classes is above 80%, and their levels are high. However, there is a certain gap between the improvement of the two classes after the summer vacation. The experimental class increased by 4.1 points, and the control class increased by 6.6 points, which is 2.5 points more than the experimental class. 2.2 points more. In terms of passing numbers, there were 5 more experimental classes, 7 more control classes, and 2 more experimental classes.

4.2 Improve the Application System of the TQ Monitoring System Platform
A sound and perfect application system has a very important support and guarantee function to promote the more active role of the TQ monitoring system platform. Therefore, it is necessary to achieve good results in building the TQ monitoring system platform application system, otherwise it will restrict its Effectiveness. In the specific design process, in addition to the data-based design of the TQ monitoring system, it is more important to strengthen the construction of the evaluation subject, which should include experts, teachers, and students at multiple levels to achieve expert reviews, The organic combination of teacher mutual evaluation and student evaluation, so the TQ monitoring system platform should have multiple levels of authority, and log in to the system for evaluation according to different evaluation needs. In terms of improving the application system of the TQ monitoring system platform, we must pay more attention to the systematic construction of the TQ monitoring system platform. In addition to relying on the "campus network", we must also establish an external network docking platform and a mobile phone docking platform to realize teaching. Immediateness of quality monitoring system platform supervision and evaluation.

4.3 Learning Improvement in Experimental and Control Classes
From the data in Figure 1 below, it can be seen that 41 people in the experimental class were satisfied with the 8 weeks of summer vacation, of which 82% were satisfied, and 37 people in the control class were satisfied with the 8 weeks of summer vacation, with a satisfaction rate of 74%. Among them, the experimental class was dissatisfied with summer study, while the control class was dissatisfied with summer study. In general, the experimental class data is slightly better than the control class. The platform proposed in this article supports online testing and online learning for students. During classroom learning and self-assessment, students are graded by the system and then a chart is created. Teachers use the data to understand the situation of students and better evaluate and reflect on each stage of education.
5. Conclusion
In terms of methods, it is proposed to reform the teaching evaluation system, improve the efficiency of TQ monitoring, and ensure the effectiveness of TQ and staff training. Four improvement measures are proposed, including the three-level department lecture system and the establishment of a TQ information feedback system to improve the effectiveness of teaching monitoring. The effectiveness of the improved method proposed in this paper is tested by experiments on relevant classes. Finally, the data are found, and it is found that the improved monitoring method proposed in this paper is more effective than the original teaching method of micro-learning platform. Based on student feedback, I hope to promote the monitoring method proposed in this article.

Acknowledgments
Hubei provincial department of education science and technology research project plan, "research on the construction and application of micro-course platform in colleges of applied technology under the background of" Internet PLUS", No. B2017377;

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