Research on Hybrid Teaching Mode Based on "Cloud Class Intelligent Vocational Education"——Take "Introduction to Internet of Things" as an Example

Zhiwen Zhang

Urumqi Vocational University, Urumqi 830000, Xinjiang, China.

Abstract: The advent of the era of "Internet+" has made intelligent classroom an inevitable trend of current education. Based on the cloud class intelligent vocational education platform, this paper takes the course "Introduction to Internet of things" as an example, and constructs a hybrid teaching mode through the integration of online and offline resources. Through the actual classroom teaching, this paper analyzes the traditional teaching and hybrid teaching, and discusses their possible shortcomings. By reflecting on its shortcomings, new ideas are put forward for the innovation and practical application of hybrid teaching mode in vocational education in the future. This paper mainly introduces the application advantages of the "cloud class intelligent vocational education" hybrid teaching mode in the "Introduction to the Internet of Things", analyzes the problems in the application of the hybrid teaching mode in the course of "Introduction to the Internet of Things", and studies the specific problems and countermeasures.

Keywords: Internet+; Intelligent Vocational Education; Hybrid Teaching; Vocational Education

At present, under the new curriculum standards, it is required to continuously deepen the curriculum reform, in order to promote quality education, and actively change the teaching concept and mode, as well as promote the development of curriculum teaching. In the related work, the hybrid teaching has achieved successful practice, and the intelligent hybrid teaching mode based on the relevant information platform has been gradually popularized and applied. This paper studies the hybrid teaching mode of cloud class intelligent vocational education, and analyzes the application countermeasures of cloud class intelligent vocational education hybrid teaching in "Introduction to Internet of Things".

1. Characteristics and advantages of hybrid teaching in "Introduction to Internet of Things"

1.1 Characteristic

In terms of the characteristics of hybrid teaching mode, it mainly includes the following points:

First, the hybrid teaching mode uses online and offline teaching forms to implement teaching;

Second, the purpose of online teaching is to assist classroom teaching, which is a necessary part of teaching;

Third, offline teaching is not following the traditional curriculum teaching mode, but through the online early stage of learning to carry out in-depth learning;

Fourth, hybrid teaching is only a narrow sense of the combination of online and offline, and has little to do with relevant teaching theories, strategies, methods and teaching organization forms;

Fifthly, there is no unified curriculum teaching mode in hybrid teaching, but the teaching objectives are the same, that is to realize the reform and innovation of the traditional curriculum teaching mode, improve students' insufficient learning interest, low, enthusiasm, awareness and participation in traditional curriculum teaching mode, so as to promote the teaching effect;

Sixth, the application of hybrid teaching mode is the reconstruction and expansion of the traditional teaching mode. The related teaching does not necessarily occur at the same time and place. The main function of online teaching platform is to expand the learning space and time of learners.

1.2 Advantage

The core of cloud class intelligent vocational education platform is to build an integrated teaching environment, so as to realize data sharing, facilitate unified identity authentication and unified user portal, unified software architecture, so that hybrid teaching can be carried out comprehensively, and in this process, effective results are formed, which can also provide effective reference and guidance for the hybrid teaching of related professional courses.

From the perspective of the course "Introduction to Internet of Things", this is more professional and theoretical, which involves a lot of professional theories and professional knowledge and technology. Taking the traditional teaching mode, students often feel boring and have no motivation to learn. Based on the intelligent teaching platform to carry out the hybrid teaching of related courses has a positive role in promoting the curriculum teaching reform, optimizing the teaching mode, and enhancing the interest of the course teaching, so as to enrich the course teaching content, and change the multi abstract course teaching content to the visualized knowledge.

2. The main problems in the hybrid teaching of "Introduction to Internet of Things"

2.1 Deficiencies construction of network teaching platform makes hybrid teaching practice difficult

Through the investigation of the current situation of "Introduction to Internet of Things", it is found that in the course teaching of "Introduction to Internet of Things" in relevant colleges and universities, there are preliminary application attempts for hybrid teaching mode. However, in the hybrid teaching of professional courses, there are still some deficiencies in the construction of network teaching platform. There is also a gap in the module teaching of related courses. The purpose of module setting is to improve students' learn ability, which should be combined with the relevant syllabus, teaching planning, course courseware and teaching tasks of professional courses. At present, there is no corresponding network teaching platform construction in the practice of the hybrid teaching mode of Internet of things Engineering in many related colleges and universities. The relevant curriculum resources are also learning from the teaching achievements and experience of teachers in other colleges and universities, which are lack of independent professional development and construction for network teaching curriculum resources, with low quality for the overall hybrid teaching.

2.2 The lack of hybrid teaching resources leads to slow updating of teaching resources

At present, in the relevant cloud class intelligent vocational education hybrid teaching mode, the related hybrid online and offline course teaching resources are constantly improving. However, on the whole, the relevant hybrid teaching resources are still relatively short, and the unbalanced distribution of related resources in the major is obvious. In the course of "Introduction to Internet of Things", the hybrid teaching resources are relatively short. There are not enough professional teaching resources in the organization of online learning activities before class, and the online teaching resources available to teachers in the classroom are also limited. The relevant technology and theory of Internet of things engineering is still in the process of continuous development. The update of some course teaching resources cannot keep pace with the development speed of technology and theory, which leads to the relatively lagging teaching content, and not conducive to promoting the cultivation of high-quality professional talents in the new period.

3. Hybrid teaching strategy of "Introduction to Internet of Things " based on cloud class intelligent vocational education mode

3.1 Improve the construction of teaching platform and promote the effective development of hybrid teaching

At the moment, the construction of smart campus has been carried out in related colleges and universities. In the new era, cloud class intelligent vocational education has become one of the key directions of curriculum teachers' teaching reform. In this regard, it is required to further strengthen the construction of hybrid teaching mode of professional courses in the teaching of relevant courses, and clarify the importance of the construction of hybrid teaching platform for the course of "Introduction to Internet of Things" under cloud classroom intelligent vocational education. In the hybrid teaching practice for professional

courses, we should actively lay the foundation of network teaching platform and improve the relevant teaching content setting based on the needs of hybrid teaching, in order to ensure its orderly development.

Therefore, in this process, teachers should focus on the development of teaching resources, actively strengthen the design of hybrid mobile courses, so as to integrate effective information and technology to optimize the classroom setting, change the teaching mode of courses, and promote the improvement of the overall teaching level. In the related classroom teaching, we should increase the investment in the construction of the network teaching platform, improve the relevant facilities needed in the hybrid teaching mode, and do a good job in the information transmission and resource supply of the teaching platform, in order to ensure that the course teaching of "Introduction to the Internet of Things" achieves ideal results.

3.2 Enrich course teaching resources and strengthen teachers' network teaching resources construction ability

Combined with the actual needs of the course teaching of "Introduction to the Internet of things", in the teaching of related courses, we should take the demand of hybrid teaching mode under the intelligent teaching platform as the guidance, enrich the teaching resources of professional courses in time, so as to combine with the teaching needs of professional courses, and compare with the teaching contents of relevant textbooks to construct course resources that can meet the needs of the whole process of hybrid teaching.

In this regard, it is necessary for relevant course teachers to strengthen their own resource construction ability in teaching, clarify the production method and process of hybrid teaching course resources, and optimize the teaching design of each class, in order to make high-quality demonstration course teaching resources and upload them to the teaching platform. Through the continuous efforts, the professional teachers can promote the effective construction of hybrid teaching resources of "Introduction to the Internet of Things", and lay the foundation for hybrid teaching practice.

3.3 Carry out hybrid teaching training for teachers and improve the efficiency of hybrid teaching

In view of the innovative teaching ability of relevant teachers in "Introduction to the Internet of Things", we should strengthen the application of training mechanism and carry out training on the use of new micro class recording and broadcasting classroom for professional backbone teachers. It is necessary to carry out theoretical and related technical training of hybrid teaching mode, and comment and summarize the online training teaching situation of the course. For example, in the training of micro class recording of "Introduction to the Internet of Things" at broadcasting classroom, the use of screen recording mode, pen hold mode, virtual scene mode, virtual lecture mode and transparent blackboard writing mode are demonstrated. The training of hybrid teaching mode can invite online teachers from cloud class intelligent platform, focusing on the design and development theory of hybrid courses, the use of cloud class intelligent platform, and the use of commonly used resource production tools such as mind map, video screen and other software. With the help of cloud class intelligent vocational education App autonomous learning platform, using its teaching mobile tools, online and offline hybrid teaching brings professional education services for students. A variety of teachers are available for students to choose. They can choose courses freely and arrange time reasonably, which fully stimulates students' learning passion.

4. Conclusion

The hybrid teaching mode based on cloud class intelligent vocational education is an important direction and trend of the current curriculum teaching reform. In the course teaching of "Introduction to Internet of Things", in order to strengthen the application of relevant measures, we must do a good job in the teaching reform and optimization measures of the course, so as to promote the continuous improvement of the teaching quality.

References

1. Yue S, Li B, He D. Exploration and application of the mode of learning and training integration based on the internet+—— Take "introduction to internet of things" as an example. Electronic World 2019; (21): 104.
2. Li B. Research and practice on modularization of introduction to internet of things based on "learning and training integration". China New Communications 2019; 21(20): 180.