Supporting Environment Construction of Vocational Training Hybrid Learning Mode Based on the "Internet +"

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Abstract: With the advent of the "Internet +" era, emerging information technology is widely used in the field of education. The way of information production and distribution gradually changes the traditional way of information flow. Based on the thinking and reflection on network learning, the mix of traditional meanings is changed. The concept of teaching, creatively proposed a mixed-learning model of vocational training in the "Internet +" environment. This study combines the development status of specific hybrid teaching, design a hybrid teaching model, and simultaneously explore the application. It effectively solves the problem that the students' main role of learning is not fully exerted, the individualized teaching is difficult to implement, and the teacher-student interaction is not sufficient. By re-establishing the curriculum evaluation criteria, designing the curriculum evaluation dimensions and weights to measure the students' learning effects, and verifying the effectiveness of the model by examples.

1. Introduction

After more than 20 years of development, mixed teaching at home and abroad, whether it is researchers, teaching practitioners, government and educational institutions, has basically reached a consensus: hybrid teaching will become the "new normal" of future education. Especially in the context of the current "Internet +", hybrid teaching has shown a spurt of development, and the popular "Internet + education" has also re-focused the community on mixed teaching. "Internet +" has spawned an emerging feature of online education[1]. From the Internet to the mobile Internet to the "Internet +", people's access to knowledge is more and more convenient, and the demand for knowledge is increasingly diversified and not subject to The limitation of objective factors such as time and space makes education more humane and individualized, completely changing the picture of the whole teaching, and then the basic elements of education and the surrounding environment are greatly changed, and the traditional teaching mode There are essential differences in form, mode, method, method and so on[4]. The renewal and transformation of the technical forms in the field of education, while triggering the renewal and transformation of ideas, corresponds to the transformation of teaching forms and teaching models.

The construction of the hybrid teaching mode has certain feasibility from the perspectives of implementation, organization and operation. It breaks the traditional closed-face teaching of face-to-face teaching and brings fresh ideas and models. In teaching resources, it has broken through the past. Fixed the carrier, breaking the specific boundaries and extending the students' horizons and knowledge[3]. However, the increasingly important development trend of hybrid teaching has made practitioners and researchers at home and abroad increasingly confused and confused. Teacher-student separation of time and space, resulting in insufficient emotional interaction between teachers and students; network separation from teaching process; network and teaching surface integration, substantial separation; online teaching process lacks two-way interaction; lack of emotional interaction, lack of guidance for student learning, emotional alienation. In this regard, domestic and foreign academic circles have been lacking a clear and systematic conceptual framework and analytical framework to guide the research and practice of hybrid teaching. The research only stays at the level of integration. The constructed network teaching mode is still in the state of surface integration and substantial separation. At the same time, the teacher-student interaction is insufficient, the teaching process is one-stop, and the structural

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changes of the teaching mode are not touched[2]. To this end, it is an urgent task to find a breakthrough in the integration of network and teaching and to establish a teaching model that meets the individual needs of students[6].

Therefore, based on these confusions, this paper puts forward the conceptual framework and analytical framework of hybrid teaching to systematically sort out and analyze the related practice and research of hybrid teaching at home and abroad, and try to construct the hybrid teaching mode while retaining the original face-to-face teaching[7]. On the basis of teaching, the introduction of online teaching combines the advantages of the two, greatly extending the spatial dimension of teaching, activating teaching resources, enriching teaching methods, providing teachers and students with more possibilities for teaching and learning, learning The interest and personality of the person have received more respect[8].

2. Design of Vocational Training Mixed Learning Mode under the "Internet +" Environment

Hybrid learning is a learning environment that combines face-to-face teaching with the teaching of basic technical media. In the hybrid teaching mode designed in this paper, mobile Internet technology is combined with traditional face-to-face teaching. Instructional design and implementation are guided by constructivism theory, giving full play to the role of students and teachers as “dual subject“, and designing the course teaching into three sections. The style is pre-study, in-class, and after-school. The learning process uses mobile Internet technology to combine online and offline.

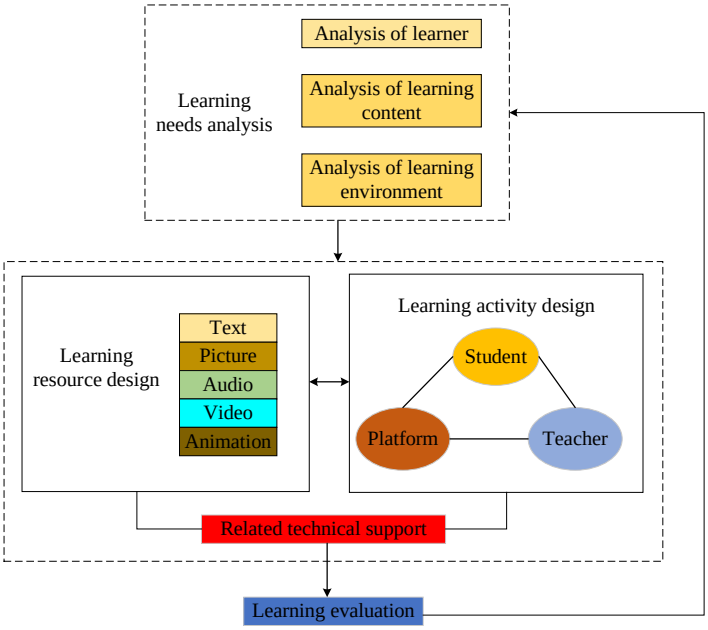

Fig 1. Flow chart of teaching design for mixed learning

2.1 Pre-class preparation

Using the online learning method, using the course resource library platform system to release the learning tasks and guiding questions of the course knowledge points to be learned, and pushing the tasks to the student mobile Internet devices, requiring students to pass through in a targeted manner. Video viewing, data search and other methods to learn the relevant knowledge, complete the pre-class practice. At the same time, the teacher uses the big data collection and data visualization analysis function of the course resource library platform to analyze the student's pre-study situation, and sort out the difficult learning points of the students, so as to explain more in a targeted manner during class[5].

2.2 In-class Learning

By using offline teaching method, students can internalize knowledge through classroom

learning. According to the relevant data obtained in the pre-class preparation stage, teachers design and teach classes pertinently, pay attention to explaining the key and difficult points, and organize students to explore the problems arising in the pre-class preparation stage.

2.3 After-class exercises

Online learning, assignment exercises on the platform of curriculum resource bank, discussion and communication are used to consolidate students'knowledge. Students can deepen their understanding of knowledge points in class by completing platform assignments. Through teachers'comments on students' problems and mutual learning between students and students, we can broaden our thinking.

3. Construction of Vocational Training Hybrid Learning Mode under the "Internet +" Environment

Hybrid teaching mode is a new education mode based on the deep integration of Internet and education, with "interaction" as the core, which integrates online education, face-to-face learning and group collaboration to realize meaning construction. It makes network learning and traditional education change from duality to duality. Integration refers to the real combination of Internet and education, which makes the teaching process more intelligent and comforTable.

Hybrid teaching mode has the following characteristics: first, openness. The running water is not corrupt, the household pivot is not sluggish, the static education mode will only be self-confident, and openness is the necessary condition for the system to maintain its eternal power. The whole mode is in a state of dynamic development and change, information exchange. It constantly introduces new resources, supplements new energy and introduces negative entropy value through the Internet. It gradually changes from disorder to orderly state and promotes the learning process. Secondly, the various elements in the mode have a non-linear mechanism. Resources, learners, teachers and other factors break the inherent linear dependence of the learning style you teach me, but create a two-way interactive feedback of the non-linear mechanism. In the process of learning, the elements are constantly combined in some form, which often produce unexpected sparks when they collide with each other. Third, keep away from equilibrium at all times. The teaching mode of interaction and blending is always in a non-equilibrium change. In terms of teachers, teachers need to break the restrictions of their traditional ideas, improve their teaching and teaching abilities, take the lead in the example, and use the Internet to teach them things, so that "Internet + education" can not be completely put into the Internet. For learners, they should also get rid of the shackles of textbook knowledge, actively adapt to the new teaching mode, and develop their innovative and creative abilities.

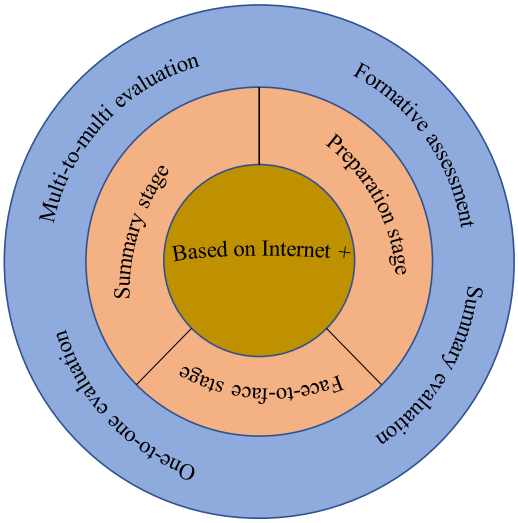

Fig 2. Hybrid teaching model

Hybrid teaching model is a closed-loop teaching model, in which each step is connected and integrated. Each step runs through and cannot exist independently. Intervention of Internet technology not only makes every teaching link a multi-dimensional activity, but also activates and activates the subject and object of education implementation, which has the characteristics of diversity, richness and integrity. Teaching links are linked into a main body, and then teachers and learners, teaching elements, etc. are also linked into an interrelated system.

During the whole process, teachers and students will participate in the interaction, transmission and feedback of information, which embodies the educational concept of taking people as the main body. In the classroom based on offline learning, the role of teachers has changed from traditional single executor, organizer and manager to classroom planner, curriculum developer, problem listener, knowledge researcher and wisdom creator. Teachers should learn to change roles from the perspective of students; in the aspect of knowledge transmission, teachers should change roles from one-way transmission of knowledge to one-way transmission of knowledge. In order to promote the independent construction of students'knowledge, elaborate design of teaching links; in teaching methods, with language transmission as a means, diversified presentation methods, teaching platform as a carrier, with the help of problem intermediary, organize learners to teamwork teaching. The teaching method of mixed teaching lays more emphasis on the teaching of common discussion. Every step of teaching design in the process of teaching is based on the students'cognitive development level. The teaching content is organized based on the learner's feedback. It is built on the basis of the teachers' and students'common dialogue, common exploration and determination of common goals. Because learners have initially learned basic knowledge after class and feedback problems to teachers through certain means, teachers will focus on solving learners'off-line problems in the classroom, following their actual situation, reflecting the teaching idea of teaching according to their aptitude, teaching is more targeted, changing the traditional classroom teaching only relying on teachers. The situation of teaching by experience. In addition, the content that teachers teach in class should be based on online courses and resources, and can not be separated from each other. It is the expansion and extension of students'learning after class. If the stage of online learning after class is to understand and grasp the basic theoretical knowledge, then classroom teaching can be seen as improving the inquiry of sexual knowledge and the mastery of expanding knowledge, and the project completion and activities of learners after class are the application of practical knowledge.

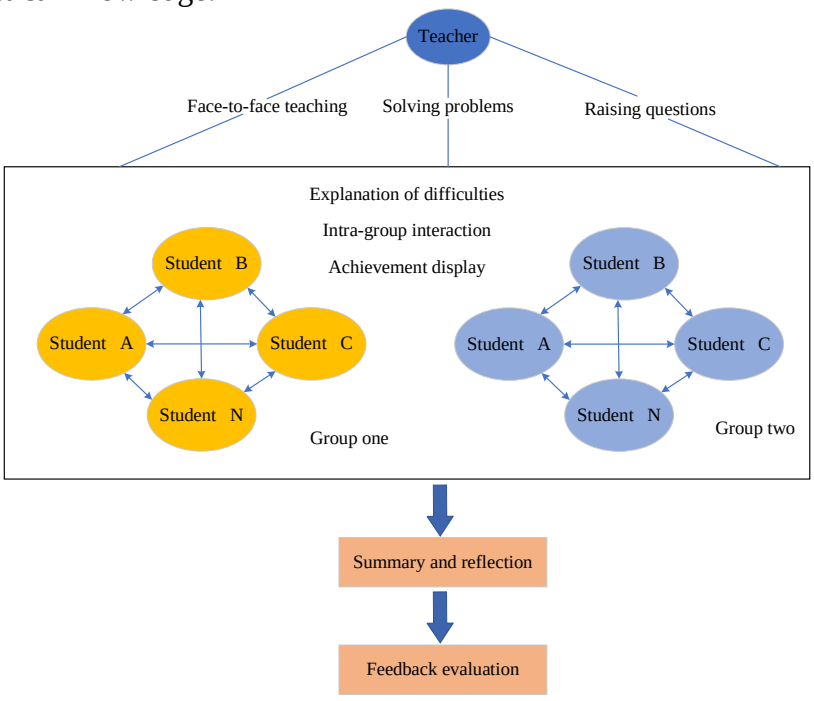

Fig 3. Flow chart of face-to-face teaching stage

Summary reflection is the last link in the learning process, that is, a brief summary of the

learning process, which itself is the process of learning improvement. For students, summarizing and reflecting helps to enhance the relevance between the original knowledge nodes, eliminate irrelevant nodes, and adjust the internal structure of the knowledge network system. Secondly, through summarizing and reflecting, we can monitor the learning strategies and methods used in the learning process at any time in order to have a better experience in the next learning. For teachers, it helps to recognize the gains and losses in the teaching process, and thus continuously optimize the teaching design. Only by constantly practicing, summarizing and innovating, and on the basis of summing up experience and lessons, can we improve our comprehensive quality.

4. Supporting Environment Assessment of Vocational Training Hybrid Learning Mode under the "Internet +" Environment

In the traditional teaching mode, the final course scores are often evaluated with simple daily results combined with final exam scores. Because of the relatively small dimension of student performance evaluation, there is a certain one-sidedness in judging students' mastery of the curriculum. In the mobile Internet-based hybrid learning model, the traditional performance evaluation system is changed, and the mobile Internet curriculum resource library platform system is used to collect data including the student's learning time and test scores, and the students are multi-dimensional and multi-level based on large Analysis of data analysis techniques to make a more objective assessment of a student's performance. In this mixed teaching model performance evaluation system, the main evaluation indicators are divided into two dimensions: online scores and offline grades, and each dimension is subdivided into 8 sub-dimensions. The weight of each evaluation dimension is determined through the discussion of professional teachers and the guidance of experts of the professional teaching steering committee.

Table 1. The learning effect of mixed teaching model

category	Learning convenience	Learning effect	Learning enthusiasm	Knowledge expansibility	Communication ability
Obvious improvement	62.0	55.0	60.4	66.3	46.1
A certain improvement	33.6	35.4	34.9	31.4	51.6
No improvement	4.4	9.6	4.7	2.3	2.3

It can be seen from Table 5 that in the “Internet +“ environment, most students think that there is a certain improvement or significant improvement in learning convenience, learning effect, learning enthusiasm, knowledge expansion, and communication ability.

5. Conclusion

The hybrid teaching mode based on "Internet +" is a new teaching mode. By combining mobile Internet technology with traditional teaching methods, it can effectively improve teaching quality and improve teaching effect. This paper designs a new model of Hybrid Teaching Based on mobile internet course resource database system. It measures students'learning effect by redesigning course evaluation criteria, designing course evaluation dimensions and weights, and verifies the validity of the model with an example. Because there are many factors affecting the teaching effect, including teaching content, teaching form, individual students, teaching methods, etc., the results of this study can only serve as a reference basis. In the actual application process, the design of evaluation indicators and the weight ratio need to be further improved in combination with the actual situation.

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