Research on PHP three-dimensional teaching model based on O2O model

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Abstract: O2O teaching mode refers to the combination of online and offline classroom teaching. With the development of network technology, education information technology has also made great progress, based on O2O mode of three-dimensional teaching mode is more and more widely used. Through this learning mode, students can use traditional classroom learning offline and online courses on the platform of "micro-class cloud classroom" for fragmented and mobile learning according to their personal needs, so as to quickly and comprehensively master relevant knowledge. Taking PHP program design teaching as an example, this paper expounds the intrinsic significance of the O2O mode based three-dimensional teaching mode and the measures to implement this teaching mode.

Keywords: PHP; O2O mode; Three-dimensional teaching mode; Implementation.

1. Introduction
Three-dimensional teaching is the perfect combination of the traditional classroom teaching mode and the current popular network teaching mode, taking advantage of each other, not only improve students' learning autonomy, but also according to the individual needs of each student to carry out teaching work, improve the teaching effect. In the following, we take the course of PHP programming as an example to explore and study the O2O model of three-dimensional teaching mode.

2. The significance of the O2O mode based PHP three-dimensional teaching model
O2O, namely Online To Offline, aims To express an Online To Offline mode. O2O e-commerce concept comes from the United States, is a kind of business model, in particular, refers to the traditional mode, the offline business process, and the organic
integration of the Internet, with the aid of the efficiency of the Internet, interactive, to offline business deal to build an interactive platform, let the business process of online and offline to achieve seamless docking. At present, O2O has gone through three stages, namely 1.0, 2.0 and 3.0, continuously injecting fresh vitality into modern business.

O2O new form of three-dimensional teaching design, for students to provide a "classroom learning + online course" matching, comprehensive learning PHP programming solution. According to personal needs, students can make use of traditional classroom learning offline and online "micro-class cloud classroom" platform for fragmented and mobile learning, so as to quickly and comprehensively master PHP programming and other related software. O2O mode based programming three-dimensional teaching model can give full play to the subjective initiative of teachers and students, teaching and learning play an equally important role, form a benign interaction, promote the diversification of teaching forms and highlight the teaching effect.

3. Analysis of the current situation of PHP teaching

"PHP programming" is an important course offered by the school of computer science and technology of our university. It comprehensively introduces the basic knowledge of "PHP programming" and the technology and method of using PHP to develop network applications. This course is highly theoretical, practical and practical, which can improve students' employability. Due to the strong theoretical nature of the course, students are not good beginners. The knowledge points in each chapter of the course are scattered and lack of systematicness and integrity, which leads to students' inability to understand the correlation between knowledge points and their inability to apply what they have learned to practice. As a result, there is a big gap between the knowledge points and the ability requirements of enterprises for talents. So, how to stimulate students' interest in learning, mobilize students' enthusiasm and initiative in learning, how to help students understand what they have learned, to enable them to combine theory with practice, to integrate what they have learned, and how to enable graduates to meet the post requirements of enterprises are all problems that need to be considered in teaching.

4. Implementation of PHP three-dimensional teaching mode based on O2O mode

The three-dimensional teaching mode developed on the basis of O2O model is applied to teaching, which changes the roles of teachers and students. Teachers become the guidance of teaching and students become the subject of learning. Three-dimensional
teaching is not limited by time and space, teachers and students can interact in an all-round way, so that teaching is fully developed. We can start from the following points to implement the three-dimensional teaching model.

4.1 Change teaching roles
In the traditional sense, the teaching mode is dominated by the teacher, who is responsible for the planning and implementation of the whole teaching process. The students are in a very passive state, and can only obey the teacher's arrangement of the course. They have no right to express their opinions on the planning and implementation, and they are purely participants. With the implementation of teaching mode, the roles of teachers and students as teaching members also change, and the subject and object can also transform each other. The use of three-dimensional teaching model can encourage students and teachers to participate in the teaching process, better stimulate the participation of students, give play to their own strengths and interests, teachers and students together to do a better three-dimensional teaching.

In the three-dimensional teaching mode, the teaching requirements of programming design are higher, and the role of teachers is more complex. In the traditional teaching mode, teachers only play the role of knowledge professor, but in the mixed teaching mode, they have to play multiple roles such as guide, supervisor and implementation of teaching. Therefore, under the three-dimensional teaching mode, teachers should take more responsibilities to promote the three-dimensional teaching mode.

4.2 Update teaching concepts
The blended teaching mode adds the elements of network teaching, but it requires more teachers to plan, prepare and implement the online and offline teaching work. It is classroom teaching also cannot loosen, the teacher is taught to the face course also should arrange good. O2O based three-dimensional teaching mode is combined with network information technology, but traditional classroom teaching is still the basis of network learning. Teachers must make reasonable use of class time, arrange the content taught in class, complete teaching activities together with students, solve the problems raised by students in the course of class, understand and apply knowledge flexibly, and assist students to master the knowledge learned in class. Second, on the basis of good classroom teaching, teachers should design network teaching resources according to the course and content, and then send learning materials to students on the network learning platform, assign preview and review learning tasks, consolidate the learned English knowledge, so that network learning and classroom learning complement each other and promote each other. According to
the actual situation of each student, the teacher should send online teaching materials in line with their English ability level, so that students of all levels can improve their English ability comprehensively and learn English better. Under the O2O mode of three-dimensional teaching mode, although it seems that the teachers have less time for face-to-face teaching, in fact, the workload of teachers has increased.

4.3 Building resource Banks
O2O model based on the three-dimensional teaching model is built on the basis of the network, so we must build a good course network learning resource base, the quality of resources of the network learning resource base, has a direct relationship to the learning of the network learning, related to students' learning initiative and learning effect. Therefore, the premise of three-dimensional teaching is to establish a good network of learning resources. The correct selection of online learning resources should meet the following requirements: first, online learning resources should be consistent with the basic content of classroom learning; Second, the network learning resources should coordinate with the level of students; Third, the network learning resources should be lively and vivid, to attract students to take the initiative to learn. In order to make the network learning resource database play a greater use of efficiency, teachers in the construction of the network learning resource database in a scientific way to sort and classify, to provide students with learning convenience, classroom learning and network learning better combined.

4.4 Do a good job in teacher-student interaction
Traditional teaching model, not a lot of interaction between teachers and students based on O2O mode PHP programming three-dimensional teaching mode broke the limit of time and space, and there is no clear class time and class time, teachers can be real-time online, ask about the learning of students, students can also instantly ask questions to the teacher, the teacher should timely answer, active interaction between teachers and students. The benign teacher-student interaction in the three-dimensional teaching mode of PHP programming includes both intra-classroom and intra-classroom interactions. Existing interactions are also wired interactions. In addition, the interaction between students can be a supplement to the teacher-student interaction, and some group learning activities can be carried out to activate the learning atmosphere and motivate students to learn better.

4.5 Establish an assessment system
The program design teaching on the traditional sense examines the student to study the effect the method, is generally takes the semester end examination the method,
such practice is unfair, cannot objectively and comprehensively reflects the student
the entire semester the study effect, causes the student only to pay attention to the
heavy examination result does not pay attention to the study the process. Based on
O2O model of three-dimensional teaching mode to adjust the appraisal method,
appraisal to the whole process of students' learning, scientifically examines the final
grades and learning process, the formation of a new system of assessment, to
students' classroom learning and learning outside the classroom, online learning and
offline learning a real-time evaluation, enhance students' motivation to learn.

5. Conclusion
To sum up, the traditional teaching mode of classroom teaching has not been able to
meet the needs of students' personalized learning, and three-dimensional teaching
has become the development direction of teaching. Our college teachers should also
change the teaching concept, conform to the needs of The Times, adjust their role in
teaching changes, give play to the leading role of teachers and students, do a series
of corresponding work such as network resource database, teacher-student interaction,
assessment and evaluation, so as to make the teaching of program design to a new
level.

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