A Probe Into the Integrated Online Teaching of "Packaging Design" Course in Product Design Specialty*

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Abstract—**The application of Internet technology in the teaching process is becoming more and more mature. It has become a trend in the modern teaching process to combine the online and offline integrated teaching methods. Based on the definition and characteristics of the integrated teaching mode, this paper discusses how to combine with the "Packaging Design" course of the product specialty, and introduces the elements of the Qiang nationality into the teaching practice, so as to solve the problems of process supervision and insufficient teaching feedback in the single teaching mode.**

Keywords: integrated online teaching, products specialty, Packaging Design course, teaching reform

I. INTRODUCTION

A. Definition and characteristics of integrated online teaching

Jochems (2004) put forward that the integrated online teaching is not only the web-based learning, but also a well-designed educational system which contains the characteristics of teaching, technology, as well as organization; the integrated online teaching includes online teaching, face-to-face teaching, structured work training, as well as internships; the integrated online teaching is the integration of purposeful web-based learning, classroom learning, self-study, as well as practice and so on; the integrated online teaching needs to combine different factors, achieving the goal of learning with the best integration method. [1] From this, we can see that the integrated online teaching is a kind of education system which is based on the aim at achieving the goal of learning, taking the online and offline mixed teaching as the means, and choosing the best integrated design method from the three aspects of teaching,

technology and organization. Because the integrated teaching method is a well-designed teaching system, it has three characteristics for learning participants, namely, complexity, flexibility as well as pluralism.

The integrated online teaching is a complex process of ability training for teaching participants. In order to achieve the goal of teaching, teachers should integrate both online and offline and construct knowledge structure, and systematically design teaching methods, teaching contents as well as teaching logic. Students need to mobilize their existing knowledge, skills and attitudes to participate in learning. Learning is not only the superposition of new skills, but also the cultivation of comprehensive ability to adapt to new problems and solve problems.

The flexibility of integrated online teaching is mainly reflected in the flexibility of learning location, learning time, learning content as well as learning interaction. Teaching participants can make the best of online advantages, arrange courses, study, review, submit or revise assignments by using fragment of time; in accordance with different individual learning ability, students are given an optional to carry out pre-review; online teaching can make teaching participants get the flexible and effective interactive experience of "one-to-one", "one-to-many", and "many-to-many".

The diversity of integrated online teaching is mainly reflected in the diversity of teaching methods and the diversified cultivation of students' ability. In order to realize the teaching goal, teachers choose various teaching materials, teaching techniques as well as teaching methods. In addition to the traditional teaching materials, there are richer and more cutting-edge resources online such as design theory reference books, designers micro-blog, as well as design official account; teaching technology is not only offline teaching system but also equipped with online real-time interaction; teaching methods are mostly "learning-centered" constructivism teaching methods. Students' multiple ability such as skills, knowledge as well as attitudes is improved. [2] Students are provided with free and open learning space, which is not only helpful to arouse students' enthusiasm,

broaden students' vision and satisfy students' need for knowledge, but also of great significance to cultivate students' creative spirit and establish the concept of lifelong learning. [3]

B. *The feasibility of combination of integrated online teaching and Packaging Design course*

1) It is determined by the perfection of modern teaching techniques

The integrated online teaching technology needs to establish a systematic educational platform technically. The school introduced "THEOL online education integrated platform" in 2008, and in 2019, the matching "Umooc class V8" mobile phone APP was online. The teacher uploads the basic curriculum information and curriculum resources based on the teaching plan and designs the curriculum activities and teaching in class according to the syllabus. Students are able to learn about the curriculum content, schedules, emphasis, as well as difficulties online. "Umooc class V8" mobile phone APP is a simplified version of the THEOL platform; APP application not only makes learning time and place more flexible but also brings more convenient way of communication.

2) It is determined by the teaching and training objectives of the "Packaging Design" course

"Packaging Design" is a comprehensive and strong professional compulsory course, mostly completed in about a month. The time for Packaging Design course of product design specialty is more compact than other professional courses. The training goal of curriculum teaching is mainly composed of knowledge goal, ability goal as well as quality goal.

Firstly, the knowledge goals of the course include knowledge of packaging history, technology, materials, equipment as well as transportation, knowledge of the relationship between packaging and brand, sales and consumers, knowledge of functions, design principles, decoration, etc. Secondly, the capability goals of the course include basic rules and skills such as structural design, container modeling, trademark and brand design; master creative thinking, design methods, learn about the printing process and production process; be proficient in the use of PS, AI and other graphic software design; thirdly, the course quality goals enable students to start from the perspective of design, according to the characteristics of goods, sales methods, combined with marketing, consumer psychology, develop creative ideas and make the independent overall design of the structure, container modeling as well as decoration, so as to lay a good foundation for future work practice.

The complexity of the training goal and the compactness of the class schedule can't reach the teaching goal well if only depending on the online teaching. Therefore, in conclusion, the perfection of modern teaching technology and the complexity of training goals make the combination of the integrated online teaching methods with Packaging Design courses become possible.

II. PRACTICE OF THE INTEGRATED ONLINE TEACHING IN PACKAGING DESIGN COURSE OF PRODUCT SPECIALTY

The practice of curriculum teaching can meet the needs of students' different learning abilities by increasing their education time, which is mainly conducted through three aspects, namely, pre-class preparation, curriculum implementation as well as after-class evaluation.

A. *Pre-class preparation*

1) Sorting out the structure of offline curriculum

It is necessary to make clear that the course project takes the Qiang nationality special products as the theme to carry on the packing design, the class hour is scheduled for 64 hours, and the week school hour is 12 hours, completed in five weeks. On the basis of the logic of product development design, the course task is divided into eight steps in accordance with the design steps: determine the topic — research — determine the packaging strategy — creative sketch — computer design — package simulation — program review — project implementation. The course assignments are divided into two assignments (one large and one small). The small assignment requires completing the basic box folding exercises and conducting the appropriate decoration. The large assignment takes the series Packaging Design of Qiang special products as the theme. The Qiang nationality special products are chosen for design and develop, allowing students to pay more attention to and discover colorful national culture. In the meantime, the Qiang nationality is located in China's central and western regions, while many areas in these regions are poor, the Packaging Design development is relatively backward, and the design gap can allow beginners to carry out more design attempts.

2) Online course materials uploading

The teacher uploads the teaching materials to the course system one week prior to the start of the course after sorting out the difficulties and plans of the course. Students can check in advance and learn about the tools to be prepared via online notification.

3) Integrated online teaching applications

Pre-class integrated online teaching is mainly the operation of course notice and check-in function. Teachers post pre-class materials and course notifications online directly to each student through APP. The teachers arrive 10 minutes early to complete the check-in preparation. The system establishes the in-class teaching unit and the APP end opens the personnel statistics function. Students complete electronic check-in 5 minutes before class, and the system records student sign-in time. Generally speaking, the pre-class preparation is basically completed through the teacher's combing of the offline course structure, uploading the online course materials and using the integrated online teaching method to ensure the course running smoothly.

B. Curriculum implementation

In the course of teaching, it is mainly carried out through the online and offline mixed teaching mode.

1) Advantages of online teaching

The online teaching is mainly embodied in task notification, task release, assignment collection, data inquiry, as well as feedback interaction and so on, which aimed at three difficulties of quality control, progress monitoring, as well as information interaction.

In terms of the quality control problem, giving an example of the lecture observation, the traditional single teaching method is difficult to control the quality of the course practice form such as the lecture. Before the lecture, the teachers issue the tasks of comments on the lecture and requirements of the course. At the end of the lecture, the comments on the lecture will be uploaded to the online system via APP. Teachers check the system through the mobile phone to learn about the quality of lecture attending and make homework correction. The excellent comments on lecture will be shared in the course. In order to improve students' attention to curriculum practice, some students with low learning initiative are warned by comments and scores.

Aiming at the problem of schedule monitoring, giving an example of the large assignment supervision, the long-period process supervision of large assignment design becomes a difficulty. Subdivide the large assignment into three pieces of content, namely, packaging research, packaging element design, as well as design display. Set the time node of submission, it is helpful to supervise the student's design process, solve the student's state of "dragging, pulling and catching", and let the students take part in the course progress more actively. Find out the students' problems in the design process through online and offline guidance, and give the correct feedback.

Aiming at the problem of information interaction, this paper takes teaching feedback as an example. On the one hand, some students do not express their doubts in public offline because of the sensibilities, but online the students can truly reflect their doubts and learning difficulties. On the other hand, both students' learning time and students' learning participation can be increased after teachers collect unsolved problems in the classroom and upload solutions. In practice, it is found that the respect students get from feedback is more conducive to improving their degree of curriculum input. The real teaching situation feedback lets the teachers have the pertinence to guide the students and meanwhile makes the teachers discover the teaching contents which are ignored in the teaching arrangement, and moreover, the integrated online teaching is also beneficial for the growth of the teachers.

2) Advantages of offline teaching

The offline teaching is mainly shown in the construction of knowledge structure, case display, "one-to-one" guidance, teaching advice consultation, as well as student curriculum report. It aims at three difficulties of the concept carding, the interaction, as well as the quality cultivation.

Aiming at the problem of concept carding, this paper takes packaging definition carding as an example. By combining the heuristic teaching method with the lecture method and the class discussion method, teachers guide and awaken the students' review of the existing knowledge. It is helpful for the students to construct the knowledge system by using the existing knowledge, and it is a good attempt for the cut-in of the packaging course. In the process of describing the definition and function concept of Packaging Design, the teachers apply the constructivism so as to guide the students' existing knowledge system and deduce the definition and function of packaging. This kind of explaining mode of "moisturize things in silence" is more impressive to students than "fullness" and "on-line learning".

Aiming at the interaction problem, this paper takes the design practice process as an example. The offline course is in a state of group interaction, avoiding the loneliness of online learning. From borrowing tools to assisting in designing software capabilities, the interaction among students is more likely to create an atmosphere of group learning. The "free learning theory"[4] is integrated into the classroom to create a relatively loose and comfortable creative space for students. Offline guidance to students is timelier and more effective. Teachers obtain first-hand teaching feedback information through face-to-face communication with students, which is helpful for teachers to strengthen the knowledge points in the next lesson, and make timely adjustment and correction according to the actual situation, which is very helpful for the teaching participants.

Aiming at the quality training problem, this paper takes the student research report as an example. The research report not only tests the students' mastery of the knowledge points, but also tests the students' ability to communicate and coordinate with others, the writing ability of the research questionnaire and the summary, the production of PPT, the language expression in the on-the-spot rehearsal, as well as the body display and so on. Through the course report rehearsal, it is beneficial to the training of the student's comprehensive accomplishment.

In the course of curriculum implementation, the advantages of online and offline teaching are brought into full play by integrating online teaching methods, and the difficulties existing in the course of single curriculum teaching implementation are well solved, so as to ensure the effective implementation of the curriculum.

C. After-class evaluation

The after-class function of integrated online teaching mode is to rely on students' access to the system. Perform statistical analysis of visits, reading course materials, as well as online hours, etc. The maximum number of individual visits in this course is 100, and the total number of visits in the class of 27 people is 1131, and the average number of visits in the class is about 42; the maximum number of individual visits in the reading course is 30, the total number of classes is 183, and the average number of reading is about

7; the longest online time is 884 minutes, the online time of the class is about 71 hours, and the average online time is 2.6 hours. Teachers set a more comprehensive standard of student achievement evaluation through the data such as the homework, course resources, as well as online time in the system.

III.   CONCLUSION

As the Internet technology is applied in the teaching process more and more frequently, the use of integrated online teaching method has become a trend of modern teaching. In virtue of the application of "Packaging Design" course in product specialty, we have found that the application of this method not only effectively solves the series problems in the traditional single teaching mode but also improves students' learning initiative so as to enhance students' participation and make them become the subject of learning.

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