Preliminary Study on the Reform and Practice of Baked Food Processing Technology Course Based on the Micro-Lecture Concept

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Abstract: in the context of the rapid development of information-based teaching, this project takes "baked food processing technology" as the research object, and uses the concept of micro-learning as the starting point to explore the teaching mode and teaching content of micro-learning and this course. Construction methods and practical approaches. Improving the teaching effect of baking class, breaking the bottleneck of classroom and practical teaching, making students a qualitative leap in baking food processing technology and teachers' professional level. At the same time, it provides theoretical basis and lessons for the reform of micro-lectures in other courses.

1. Introduction

Bakery food processing technology course is a professional and highly practical professional course, and it is an important course to cultivate students' comprehensive professional ability and professional quality. The teaching content includes knowledge of raw and auxiliary materials for baked goods, bread processing technology, cake processing technology, biscuit processing technology, and food hygiene management [1]. The traditional baking teaching method is that the teacher teaches the theory and leads the students to make products in the training room. However, due to the influence of space and angle, key common technologies cannot be viewed repeatedly and classroom discipline is not controlled. Even in group teaching, students cannot be taught one-on-one. In addition, there are many types of baking products, different styles, and different types of baking products have different recipes, operating procedures, and points. The problem of "reading, understanding, and forgetting after class" is common among students. It is difficult for students to master even basic baking operation skills.

In recent years, many universities have made a lot of explorations in the teaching reform of baked food processing technology courses [2]. Guo xiaoyu [3], tao jinhua [4], zhang lianying [5] have adopted project-based teaching models to reform baked food processing technology. In order to solve problems such as backward teaching ideas, rigid teaching modes, and unscientific assessment methods, it has stimulated students 'interest in learning, improved students' professional quality, and significantly improved the quality of teaching. Li jianming [6], wang guangsheng [7], and wang haitao [8] respectively studied the development and implementation of bakery food technology courses, teaching models, and curriculum system design, improving the teaching effect of baking courses.

Although the bakery food processing technology course has undergone a lot of reforms, the teaching bottleneck of its traditional model has not been broken, and some researchers have noticed problems in this area, such as: lu ying [9] requires the production of skilled talents through the development of china's bakery industry analyse the professional characteristics of food baking professional talents, and propose a design and reform plan for the food baking professional talents training program. It is emphasized that the implementation of food baking professional talents training programs should also cooperate with modern teaching methods and develop multimedia teaching materials. Through the combination of text, pictures, animations, video materials, sounds, etc., and the use of computer multimedia technology, static textbooks are transformed into vivid multimedia electronic textbooks, making it difficult to understand complex production processes

and complex production methods that are difficult to describe in language. , vividly, clearly and clearly presented on the screen, improve teaching and learning effects, and stimulate students' interest in learning. Hong wenlong et al. [10] applied the flipped micro-information informatization teaching model to the teaching of the cake making process theory, taking the teaching of the cake making process theory as an example, from the four aspects of teaching analysis, teaching design, teaching process, and teaching effect. Introduced a simple and easy to popularize the micro-classroom informatization teaching mode.

The concept of the micro-video network course, which is the micro-lecture, was first proposed by american scholars in 2008 [11]. The micro-learning concept is now defined as a single knowledge point (generally the key and difficult point) in teaching according to the new curriculum and teaching practice content.) burned into 5-10 minutes video, the teacher showed the process of wonderful teaching activities through the carrier of this video [12]. Micro-learning, a new teaching method with prominent features of information technology support, has the characteristics of short and succinct, clear themes, convenient use, and strong interactivity. It is just that the core theory and key operations of baking technology can be repeatedly reproduced in the form of short videos, and students can learn and observe at any time.

The advent of mu classes and micro-classes has brought new impetus to teaching reform. Zhang xin [13] and others used the series features of "use video production technology, emphasize repeated observation and learning of knowledge points, and use network platform to carry out teaching activities" in weibo and mu classes, and solved the "full house" in the course teaching. It is difficult to focus the students' attention for a long time, and the one-time learning model is difficult to ensure that the students truly understand and master the knowledge. "weng jiejing improved the practical level of integration of foreign language teachers through the integration of micro-classes, mu classes, and actual foreign language classrooms, and ensured that the teacher's leading position was effectively and flexibly [14]."music lessons", "micro-lessons", and "flipping the classroom" are conducive to student learning and teachers to improve communication, combining our actual strengths to avoid weaknesses, and internalize them into teachers' basic teaching skills [15]. However, there are few domestic reports on the teaching reform of the concept of micro-learning in the field of baked food processing technology courses. At present, only hong wenlong of jiangsu agriculture and forestry vocational and technical college has applied the flipped micro-information teaching mode to the teaching of cake making process theory.

In order to meet the requirements of the times under the background of information-based teaching and comprehensively improve the teaching level of bakery food processing technology, we use the characteristics of information-based teaching in accordance with the concept of micro-learning to carry out in-depth and comprehensive studies on bakery food processing technology courses from the two aspects of teaching content and teaching mode. Radical reform.

2. Teaching Content Reform

After a solid and detailed job survey in the early stage, according to the needs of bakery food processing technology positions, with the improvement of baking processing technology capabilities as the teaching goal, jointly develop teaching content with enterprises; actively use "internet +" to draw new technologies and new product production, construct the "micro-lecture concept" course content that reflects the requirements of job skills, knowledge and quality.

Based on traditional breads, cakes, and biscuits, the mainstream products such as net red dirty and dirty bags, black forest mousse cakes, and australian milk custard are added as "micro-video forms" as teaching theories and practical content. Birthday cake has always been a very important profitable product in physical baking shops. The technology of decorating it is complex, and it is also the biggest gap in our baking course. In order to better connect learning content and jobs, before the course reform, we teachers completed the elementary and intermediate learning of decorating and recorded it as a video as an important part of the reform of the baking course.

3. Teaching Model Reform

Introduce the concept of micro-learning through the main line of teaching content design, and reform the teaching content from the pre-class, class, and two aspects, in order to explore the teaching mode of information-based teaching methods to improve classroom efficiency.

In the past, the baking teaching model was teacher-centred, explaining the theory and teaching techniques in the class. After the curriculum reform, the traditional teaching procedures were abandoned, the status of teachers and students was reversed, and student-centred, theories of baking products, the key operations are content micro-videos and courseware as guidance for course teaching. The pre-class preview, key steps in the lesson, comparison and evaluation are used to complete the integrated teaching, learning, and teaching chain.

3.1 Micro Video Pilot Preview Product Process

The course takes students as the main body, and sends the courseware and corresponding micro-videos made by mainstream or popular baking products to students through information platforms such as blue ink cloud classes, such as cranberry biscuits, soft European bread, seafood pizza, and blueberry mousse. Birthday cake, etc.; birthday cake is the most important profitable product in the bakery. The birthday cake making method is taught in the same teaching method, so that students can independently complete the birthday cake making. 3. The three aspects of attention are reported in the classroom dictation, deepening the theory and process understanding from raw materials to product production, and improving classroom efficiency.

3.2 Dialogue and Analysis of Key Points, Difficulties and Key Steps in the Lesson

According to the key points, difficulties and key steps of the baked product, it is separated from the teaching content by micro-video, and the micro-lesson module is independently formed, which is presented to the students in the form of visualization of the production process, which greatly improves the learning efficiency, such as making bread Judging the end point of the noodles and the proofing end point in the process, the control technology of wet and dry foaming of the protein in the cake making process, the technique of squeezing the germ of the birthday cake and the method of extruding roses.

During the group practice in the class, students can operate while watching the videos and courseware downloaded before the class. Teachers can answer questions on the spot, solve puzzles, and dial to fully understand the students' mastery in the classroom. After class, they must also use the Internet, The physical store surveys and researches related products, uses interest groups, community activities and teachers to jointly develop new product developments, expands and enriches product categories, and hires relevant industry experts to give lectures. Constantly motivate and motivate teachers and students to improve their theoretical and technical level.

3.3 Multi-Level Project-Based Teaching

The teaching project is divided into three levels. The first level is the basic classic projects in the class. All the items come from the bakery food processing training course and the western pastry teacher bibliography. The second level is the technical promotion. Students who complete the basic project can go to the physical storefront. The production and exploration of new products. The third level is practical practice. Students who have performed well in the first two levels can participate in the National Vocational College Creative West Point Competition, participate in the research and development of horizontal subjects hosted by teachers, undertake on-campus production tasks, and participate in innovation and entrepreneurship competitions. Difficult practical training. This will ensure that all students' basic baking skills pass, but will not miss the selection of talents who can perform well in this industry.

4. Teaching Effect Analysis

4.1 Micro Class Video Overcomes the Disadvantages of Traditional Baking Teaching

The core points of the production process are run through the entire process of baking teaching in the form of micro-videos, so that the key points and difficulties in the actual operation of the baking course can be repeatedly reproduced, which solves the problem that students can only listen to the operation process due to the impact of space and cannot see the harmony. Seeing the easy-to-forget shortcomings eliminates the students' fear of operating intimidation; and the mobile phone-based information equipment can effectively use fragmented time and carry out "mobile learning" at any time and place, which greatly improves classroom efficiency and classmates Practical confidence.

4.2 Innovative Course Content Enhances Students' Interest in Learning

The products after the curriculum reform are mainly current products and are updated at any time. Teachers will integrate the production principles and operation points into the teaching micro-video process like spring weather and rain, which has achieved more effective teaching results. In 2018, the national vocational and technical college students at the West Point Creative Competition The instructed students achieved the best results in history of one gold and one silver, and the content of the course changed from one product per class to 3-5 types of each lesson in the course and at the later stage. The students actively undertake productive practices. The training received wide acclaim, actively participated in the Innovation and Entrepreneurship Competition, and won the third prize of the Innovation and Entrepreneurship Competition in July 2019.

4.3 The Concept of Micro-Classes Makes a Qualitative Leap in the Teaching Level of Teachers

Since the concept of micro-learning runs through the baking teaching process, the efficiency of the classroom has been greatly improved. One lesson originally made a product and became 3-5. The original teaching content must be updated a lot; the introduction of Internet celebrities and popular baking products requires Teachers are constantly updating their theories and technologies. Teachers must use micro-videos to face classmates and even the public network. These pressures require teachers to have a high level of teaching. Only by turning pressure into motivation can the information-based teaching form be used. Baking courses are continuously improved.

5. Summary

In summary, the reform of the baked food processing technology course system based on the concept of micro-classes, with the most fundamental goal of improving students' classroom efficiency, focuses on the practical results of teaching, and fundamentally solves the traditional teaching of "understanding in class and forgetting after class" Disadvantages, the course content is fully integrated into practical applications, and the course content is constantly updated. While promoting students' technical level to a large extent, it also allows teachers to develop their vision and ideas, which makes the teaching ability of baking practice and the ability of product research and development significantly improved. Students master the main baking technology and have the comprehensive ability of new product development, organization, management, production and sales. The teaching reform formed under this new teaching concept has significantly promoted the rapid development of the bakery food processing technology course. At the same time, it also provides a good reference for other courses, especially those with complex theoretical or operational processes.

application of bakery food processing technology courses based on the concept of micro-lectures (Study approval number: C03G371203).

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