

# Exploration on Teaching Reform of Sichuan Cuisine Cooking Skills Based on the Concept of "New Engineering Education"

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**Abstract** "Sichuan Cuisine Cooking Skills" is a course that focuses on the traditional cooking skills of Sichuan Province in China. It covers not only the historical and cultural background of Sichuan cuisine, but also the cooking techniques, ingredients selection, seasoning skills and dish innovation of Sichuan cuisine. Doing a good job in the teaching of "Sichuan Cuisine Cooking Skills" is of great significance to the cultivation and reserve of culinary professionals in China, and also has an important impact on students' employment competitiveness. Under the background of "new engineering education", the course reform of "Sichuan Cuisine Cooking Skills" was carried out in terms of the construction of teaching staff, teaching methods, students' participation degree and the innovation of course content, and specific reform suggestions were put forward, hoping to effectively promote the sustainable development of "Sichuan Cuisine Cooking Skills" and effectively improve the teaching quality.

**Key words** Teaching reform; Sichuan cuisine cooking; Teaching innovation; Teaching method

**DOI:**10.19759/j.cnki.2164-4993.2025.01.017

The construction of new engineering education is a new concept of higher education reform, in order to adapt to and lead the new economic development under the background of the new round of scientific and technological revolution and industrial transformation. At present, a new generation of information technology, represented by artificial intelligence, big data and Internet of Things, is developing rapidly. The global industrial structure is deeply adjusted, and traditional industries are accelerating the transformation to digitalization and intelligence, and new industries, new formats and new models are constantly emerging. Under the background of innovation-driven development strategy and "Made in China 2025" strategy, the demand for high-quality engineering talents is increasingly urgent.

## Analysis of the Teaching Situation of the Course "Sichuan Cuisine Cooking Skills"

**The course content lags behind and can't keep up with the development of the times**

The history of China's cooking culture can be traced back to thousands of years ago. With the development of human society, China's characteristic cooking culture has been formed, including the concept of diet view, cooking view and dietotherapy view<sup>[1]</sup>. Sichuan cuisine has a profound cultural heritage and a wide range of consumers, which are the solid support of the golden signboard of "Land of Abundance" and "Food Paradise" in Sichuan. In recent years, the pace of development of Sichuan cuisine industry has been accelerating, and it plays an important role in stabilizing

growth, promoting employment and ensuring people's livelihood. The Sichuan cuisine industry is a basic industry, people's livelihood industry and mass industry that meets people's needs for a better life<sup>[2]</sup>. In addition, with the deepening of the "Belt and Road" initiative, the pace of Sichuan cuisine entering the international market has accelerated, which requires innovative cooking methods, improved taste structure and adaptation to the eating habits of international consumers on the basis of inheriting traditional skills. How to cultivate compound talents who know both traditional skills and modern technology has become a key problem to be solved urgently.

The traditional course "Sichuan Cuisine Cooking Skills" has long overemphasized the single cultivation of skill operation, while ignoring the new requirements of modern cooking industry for the comprehensive quality of talents. With the rapid development of modernization, informationization and intelligence, the production mode, management mode and service concept of catering enterprises are undergoing profound changes, which requires cooking education to keep pace with the times and carry out all-round reform and innovation. At present, there are some problems in the education of Sichuan cuisine cooking skills, such as outdated teaching content, single teaching method, imperfect practical teaching system and weak innovation and entrepreneurship education, and it is difficult to meet the needs of industrial transformation and upgrading. Especially with the wide application of new techniques in the catering industry, such as intelligent equipment, food safety inspection, and nutrition analysis system, the traditional training mode of cooking talents has been difficult to meet the development needs of the industry. In addition, the diversified development of catering market also puts forward higher requirements for talents, which not only need solid cooking skills, but also modern management knowledge, digital application ability, innovative thinking

Received: October 26, 2024 Accepted: December 29, 2024

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and cross-cultural communication ability. Therefore, promoting the teaching reform of the course "Sichuan Cuisine Cooking Skills" and building a talent training system that meets the requirements of the new era has become an inevitable choice to improve the quality of talent training and serve the development of the industry. Such reform not only has an impact on students' career development prospects, but also is related to the sustainable development of the entire catering industry and the inheritance and innovation of cooking culture.

### **The teaching method is simple and practical teaching is lacking**

The core connotation of the course "Sichuan Cuisine Cooking Skills" includes knife work, spoon work and seasoning, a kitchen knife, a pot and a round-bottomed frying pan. It seems simple, but each dish needs to go through more than 10 processes. However, because the course "Sichuan Cuisine Cooking Skills" involves many different types of food processing equipment, many higher vocational colleges do not have the conditions to set up training rooms for this course. At present, the course is basically centered on teaching materials and teaches pure theory. Teachers will show equipment photos, cooking videos and other materials in teaching, but there are often some problems. From the perspective of teachers, there are problems including lacking of teaching resources, single teaching methods, and high teaching difficulty. As far as students are concerned, due to the lack of practical experience in society and enterprises, students' cognition and understanding of various general food processing equipment are low, and there is no national planning textbook for this course.

### **The course evaluation model is out of date and can't achieve the evaluation goal**

At present, the examination of this course mainly adopts the final closed-book test, which determines students' final academic performance by combining the final grades and usual grades. The course evaluation method is single, and it pays too much attention to the results and ignores the teaching process. It can not really assess students' technical skills and professional literacy ability, and can not achieve the goal of accurately and comprehensively evaluating students' learning effect.

## **Teaching Reform Measures for the Course "Sichuan Cuisine Cooking Skills" under the Background of New Engineering Education**

### **Changing the teaching concept**

It is necessary to build a new curriculum teaching system guided by the concept of new engineering education, taking ability training as the core, and integrating traditional skills and modern science and technology, so as to cultivate high-quality technical and skilled personnel with solid professional skills, innovative thinking ability and engineering literacy, and the modern transformation and development of Sichuan cuisine education should be promoted. The core and key of teaching reform is to change teaching from "teaching" as the center to "learning" as the center, and

pay attention to the change from "emphasizing knowledge but neglecting action" to "combining knowledge with practice" in the teaching process. It is necessary to pay attention to the output rather than the input in the teaching process, and adopt the research-based teaching mode instead of the infusion teaching mode. Attention should be paid to the examination of students' practical ability and application ability, rather than the examination of pure knowledge mastery<sup>[3]</sup>.

### **Reforming teaching content**

Teaching content is the key to determining the quality of teaching. In view of the fact that the current curriculum textbooks can't meet the actual needs of teaching, a new type of curriculum textbooks should be developed. The compilation of new teaching materials should be based on the training scheme of culinary professionals and existing teaching materials, and the knowledge framework and arrangement mode should be readjusted and updated knowledge parameters should be adopted to make the knowledge system more in line with the latest requirements of the industry. The writing form of paper textbooks can be loose-leaf or manuals, changing traditional textbooks into "project + work order" and transforming the learning mode. In addition, information resources supporting paper textbooks should be established, such as online resource sharing courses. Through micro-video, animation demonstration, real work scene display, VR/AR (virtual reality/augmented reality) and other ways, abstract theories can be visualized, and the structural functions and maintenance methods of various general equipment can be clearly displayed.

### **Reforming teaching methods**

**Making clear the goal of talent training and formulating the talent development plan** Local colleges and universities should define the training objectives of applied talents in combination with their own school-running orientation and the industrial development needs of local industries. The training goal should emphasize the cultivation of students' practical ability, innovative ability and professional accomplishment. For example, mechanical engineering majors in local colleges and universities aim to cultivate high-quality applied talents who can engage in design, manufacturing, technology development and production management in the field of mechanical manufacturing, and stipulate that students should have a solid basic knowledge of mechanical design and manufacturing, master modern manufacturing technology skillfully, and have a strong sense of innovation and practical ability. Therefore, making clear the training objectives is a prerequisite, and making a talent development plan is a long-term solution<sup>[4]</sup>.

**Running schools by school-enterprise cooperation** School-enterprise cooperation can make both schools and enterprises devote themselves to talent training in colleges and universities<sup>[5]</sup>, and the teaching of this course can fully draw lessons from the school-enterprise cooperation mode and carry out cooperative teaching between schools and enterprises. This kind of teaching mode can completely get rid of the shackles of traditional theoretical classroom teaching methods, so that students can achieve their learning

goals through observation and hands-on operation, and improve their learning effect. Taking Suzhou Tourism and Finance Institute as an example, in order to promote the steady development of school-enterprise cooperation in Chinese cuisine majors, the school proposed to set up a school-enterprise cooperation department responsible for the management of school-enterprise cooperation, so as to do a good job in market research and guide all departments to build professional curriculum standards. It also proposed to strengthen the construction of "double-qualified" teachers and establish a reasonable school-enterprise cooperation assessment system. School-enterprise cooperation can achieve the ultimate goal of jointly cultivating talents that meet the needs of social and market development by giving full play to the respective advantages of schools and enterprises. This talent training mode will promote the professional development, and also improve the enthusiasm of enterprises to participate, thus accelerating the development of professional education<sup>[6]</sup>.

### **Incorporating curriculum ideological and political teaching**

In the process of promoting the full implementation of curriculum ideological and political education, relevant support from the leaders of colleges and departments is needed. Relevant educational departments of colleges should implement the specific implementation plan according to the top-level design of the country. At present, relevant policies on implementing moral education and talent cultivation in universities have already been introduced at the national level. General Secretary Xi Jinping clearly stated in the report of the 19<sup>th</sup> National Congress of the Communist Party of China: "We must fully implement the Party's education policy and carry out the fundamental task of establishing moral integrity and educating people. Establishing moral integrity and educating people is not only the fundamental task of education, but also the initial heart and mission of education." As institutions of higher learning, they should make overall planning, establish and improve effective management system, operation mechanism and evaluation mechanism, and implement the requirements at the national level<sup>[7]</sup>. Curriculum ideological and political education is a fundamental task in the work of establishing moral integrity and educating people. The expansion and deepening of ideological and political education in the course of Sichuan cuisine cooking skills is an important measure for ideological and political education to realize all-staff, whole-process and whole-curriculum education. With the continuous reform and innovation of ideological and political education in colleges and universities across the country, accelerating the teaching reform aiming at curriculum ideological and political education will involve all kinds of courses in higher education.

**Optimizing the curriculum system and doing a good job in dynamic adjustment of majors** Under the background of "new engineering education" construction, it is not only an opportunity to explore the development of new technologies in the engineering education system, but also to integrate new elements into traditional engineering majors. First, we should break the boundaries of

traditional disciplines, integrate the knowledge and content of related disciplines, and build an interdisciplinary course system, so as to cultivate students' interdisciplinary thinking and comprehensive application ability. Secondly, the practice teaching link should be strengthened, and its proportion in the curriculum system should be increased. Thirdly, it is necessary to update the course content in time and introduce new techniques, new processes and new methods developed by the industry into course teaching. Finally, close attention should be paid to the industry trends and market demand, so as to adjust and optimize the professional structure in time and transform and upgrade some traditional majors. New techniques and concepts should be incorporated to make the majors more adaptable.

### **Innovating methods and means to ensure teaching quality**

Local engineering colleges can try to implement new teaching methods, such as project-based and inquiry-based, and rely on actual engineering projects to integrate the teaching content into them. First, the student-centered teaching mode should be implemented to improve students' initiative and enthusiasm in learning. Secondly, the proportion of practical teaching links should be increased, so that theoretical teaching and practical teaching are closely combined. It is also necessary to constantly strengthen the construction of teaching resources and provide advanced experimental equipment and teaching platform, so as to provide strong support for the development of teaching activities. Finally, we should establish and improve the monitoring mechanism of teaching quality, conduct regular teaching inspections, and find and solve problems in teaching operation in time, so as to ensure teaching quality.

**Strengthening the construction of teaching staff and doing a good job in teaching evaluation** The cultivation of applied talents in the new era needs a teacher team with diverse academic backgrounds, stratified age structure and reasonable professional titles. On the one hand, the introduction of talents should be strengthened, and teachers with rich enterprise work experience and solid engineering background should be actively introduced to enrich the teaching staff. On the other hand, we should strengthen the training of double-qualified teachers, organize teachers to participate in the practice of industrial enterprises in a planned way, and establish and improve the incentive mechanism for teachers to urge them to continuously improve their abilities and contribute more to the cultivation of high-quality applied talents. It is necessary to construct a diversified teaching evaluation system, which comprehensively considers the opinions of peers, students, experts inside and outside the school, and can objectively and fairly evaluate teachers' teaching level and feedback the evaluation results in time, so that teachers can understand their own strengths and weaknesses and improve themselves in a targeted manner.

## **Effect Evaluation of Curriculum Reform**

The evaluation of the teaching reform of the course "Sichuan Cuisine Cooking Skills" should be based on the integrity and

systematicness of the course construction. The emphasis is placed on several aspects. The first is the reform of teaching content, including the integration of traditional Sichuan cuisine skills and modern cooking skills, the innovation and practicability of teaching material construction, and the scientificity and integrity of the curriculum system. The second is the innovative application of teaching methods, focusing on evaluating the implementation effect of new teaching modes such as situational teaching and project teaching, as well as the application condition of information-based teaching methods. The third is the optimization of practical teaching links, including the construction of practical training bases in schools, the development of school-enterprise cooperation, and the quality of substituted post exercitation. The fourth is the construction of teaching staff, including evaluating the proportion and quality of "double-qualified" teachers, teacher training and enterprise practice. The fifth is the evaluation of teaching effect, which is comprehensively evaluated through multi-dimensional indicators such as the assessment of students' skills, graduates' employment quality and employers' satisfaction degree. In addition, it is necessary to establish a continuous improvement mechanism, by which teaching strategies could be adjusted in time according to the evaluation results, and the teaching quality of the course could be improved continuously. Through the scientific and systematic evaluation system, the teaching reform of the course Sichuan cuisine cooking skills is ensured to achieve practical results, and high-quality skilled talents can be cultivated to meet the market demand.

## Conclusions

This paper discussed the teaching reform of the course "Sichuan Cuisine Cooking Skills" under the guidance of the new engineering education concept. Under the guidance of Xi Jinping's Thought on Socialism with Chinese Characteristics in the New Era, cooking skills, culinary culture, national consciousness and professional ethics can be integrated in this course, aiming to cultivate students into modern culinary talents who possess both ability and political integrity and are well-rounded. Based on the background of "new engineering education" construction, this paper explored the curriculum teaching reform under the guidance of the core concept of "students-centered, output-oriented, continuous improvement" in promoting engineering education. Students can learn the course content of this emerging discipline more easily by

strengthening the construction of teacher staff. Meanwhile, we should also update new teaching concepts and explore new teaching modes including "internet +" and online and offline platforms in combination with the background of the times. Meanwhile, we should learn from the German "dual system", American "cooperative education" and other school-enterprise cooperation modes, improve the integration of production and education in school-enterprise cooperation, and focus on improving students' innovative and entrepreneurial ability and comprehensive quality, so that they can better meet the needs of society. Under the background of "new engineering education", the traditional teaching mode has failed to keep up with the development of society and the requirements of the times. Schools should reform the teaching content and methods according to diversified industry needs and keep pace with the times.

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