Scholar Publishing Group
International Journal of Health and Pharmaceutical Medicine
https://doi.org/10.38007/IJHPM.2021.020401
ISSN 2789-8393 Vol. 2, Issue 4: 1-10

Quality and Safety of Food in Innovation and Entrepreneurship Education Quality Evaluation System

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Keywords: Food Quality and Safety, Innovation and Entrepreneurship Education, Quality Evaluation

Abstract: The food quality and safety profession is a very practical profession. The construction of practical teaching curriculum groups plays an important role in cultivating students' practical ability, innovation consciousness and exploring future careers. This article focuses on the content construction of science and technology innovation and food quality and safety. In the field of food quality and safety professional development and construction, we should pay attention to the innovative transformation and cultivation of talents so that they can better adapt to the needs of social development. Based on this, this paper combines the actual situation of the school, the food safety management ability of food quality and safety students and the ability to solve the practical problems of food safety, design and implement a quality evaluation system for innovation and entrepreneurship education based on the demand orientation of food quality and safety application talents.Experimental research shows that the entropy weight TOPSIS evaluation index model studied in this paper is more accurate in many aspects of the evaluation area, especially when it exceeds about 10% in the evaluation of teaching design, which fully reflects the feasibility of the research content in this paper.

1. Introduction

The food quality and safety specialty has the characteristics of application and practicality. Therefore, the practical teaching system has a special status and role in the process of talent cultivation. In order to meet the needs of the society, we will cultivate "technical management" advanced compound talents, with basic theories and skills in food science, biology, nutrition, hygiene, toxicology, can work in food production, processing, distribution and consumption in food safety production and supervision, food contamination and control, food hygiene inspection, food safety management and research, and familiar with domestic and international food quality and safety control systems and standards and regulations. Relevant universities in China are striving to promote the reform and innovation of practical teaching and intensify the training of students'

practical skills. Although practical teaching has achieved certain development in recent years, it still cannot meet the needs of cultivating technically-managed food quality and safety professionals. Therefore, the reform and innovation of the food quality and safety professional practice teaching system is imperative.

1. Food Quality and Safety Profession and the Role of Innovation in Practice

1.1. Cultivate Students' Interest in Learning Professional Knowledge in Practice, Helping Students to Define Their Future Development Direction

In the practice of chocolate factory in the UK, through the full participation of chocolate production, students understand the hygienic conditions of production, rigorous and standardized operating procedures, experience the quality and safety culture of the enterprise, and understand the quality control points of the chocolate production process. At the same time, it deepened the understanding of professional knowledge and stimulated students' interest in food production. "Learning it is good, taking an interest in it is better, but enjoying it is the best." Interest is the greatest motivation for learning. With interest, you can take the initiative to learn, and then inspire its inspiration and creativity. Therefore, in the practice of stimulating professional interest in learning and developing creativity, it is conducive to clarifying the future development direction and solving the problem of widespread employment confusion.

1.2. In Practice, Feel the Important Role of Scientific and Technological Progress in Product Quality and Safety, and Cultivate Innovative Thinking

In the British practice of beer production and production, students witnessed the production process of the combination of traditional production and modernization mode: the mechanized production methods of large factories have greatly improved the controllability of sanitary conditions and reduced the labor intensity of workers; accurate quantification and control ensure product safety. For example, in order to control the quality of beer, not only the sensory evaluation of the taster, but also the use of various special instruments to test the concentration of raw wort, carbon dioxide, total acid, bitterness, diacetyl content, to a great extent retain the flavor and quality of traditional wine. This practice allows students to feel the important role of technological advancement in technology, technology, and equipment for food quality, and has a great effect on inspiring students' innovative thinking to participate in technological innovation.

1.3. Pay Attention to Ordinary Post Practice Learning, and Fully Understand the Guiding Role of Professional Knowledge in Work Practice

The practical training mode of “post-task” is based on the CBE theory of the popularization of vocational education in North America and the principle of the DACUM method. The ability of a certain position in actual work is decomposed into several tasks for training, and students pass on each the tasks are trained and mastered one by one to possess or form the practical skills required for the position. Go to the grass-roots level, study in the practice of ordinary post, deeply understand the working method and working attitude required, which can guide the most comprehensive study of professional knowledge. In the practice of supplier groups and supermarkets in the UK, through research and understanding of the quality control process of raw materials procurement, production, sales and other aspects, we found the factors affecting food quality and safety, thinking about ways and means to solve problems, and constantly improving and revising food. Production management systems and standards, improve the implementation of

monitoring methods and methods, improve the effectiveness of food regulation. This hands-on research, discovery of problems, planning and problem-solving practice training has a good practical guiding significance for future talents engaged in food supervision related work.

2. The Necessity of Reform and Innovation of the Professional Teaching System of Food Quality and Safety

"Dinning counts most for people, of which safety comes first". Food safety is not only directly related to the national economy and the people's livelihood, social stability, the health of the people and the survival and development of enterprises, but also seriously affects China's food export trade and international image. The severe food safety situation not only poses great challenges for government regulation, but also urgently requires technically managed food quality and safety professionals with innovative practical capabilities. However, the existing practical teaching system of food quality and safety has restricted the students' interest in learning and the cultivation of their innovative ability from the aspects of curriculum system setting, teaching content and teaching methods, and their practical ability has not been well trained. To solve this contradiction, colleges and universities must reform the teaching system, especially the reform practice teaching system. Because compared with the theoretical teaching system, the practical teaching system can better reflect one's ability, including the comprehensive application ability and innovative ability of knowledge. Therefore, it is very important to reform and innovate the practical teaching system to stimulate students' interest in learning, give full play to students' subjective initiative and innovative practical ability, and cultivate a complex innovative professional who understands technology and manages it.

Innovation is the soul of a university. It is the social responsibility of a university to teach students to start a business. Promoting innovation and entrepreneurship education in colleges and universities has great practical significance and long-term strategic significance for promoting the scientific development of higher education, deepening the reform of education and teaching, and improving the quality of personnel training. The focus of innovation and entrepreneurship education is to cultivate students' innovative entrepreneurship and practical ability. The difficulty lies in strengthening the practice teaching link. The key is to build a stable and standardized practice teaching base inside and outside the school. Only internship in the real environment, students can really get exercise and edification, in order to form innovative and entrepreneurial literacy as soon as possible, so we should strengthen the construction of the practice base and strive to create a simulation environment.

3. Strategy and Thoughts on the Cultivation of Technology and Innovation Entrepreneur Talents of College Students Majoring in Food Quality and Safety

Closely adhering to the ultimate goal of talent training, innovating the concept of running a school, serving the overall situation of the service, taking the health of our people as our responsibility, radiating the international, cultivating a talented and innovative entrepreneurial talent team with Chinese cultural characteristics and an international open vision. Serve the "Healthy China" and "One Belt, One Road" strategy.

Opening a major in the context of a big health era has inherent advantages, and there are also problems and content that needs to be considered. The author believes that the cultivation of science, technology, innovation and entrepreneurship of college students can be divided into three different stages of development.

The exploring and development period.

Rooted in the main subject of traditional Chinese medicine, drawing on the ideas and

experiences of running schools in brother universities, and taking the reality of our country as the guide, for example, strengthen food production and quality control capabilities, food safety supervision and monitoring capabilities, food nutrition and health management capacity training, strengthen college students' science and technology innovation and entrepreneurship practice training, enhance innovation and entrepreneurship, and constantly sum up experience.

(2) The summarizing and improvement period.

On the basis of exploring and developing, further consolidate the thinking of college students in innovation and entrepreneurship, strengthen the follow-up research on graduates and employers, conduct research and research on social interest participants, and seek comprehensive opinions from graduates and employers to form a certain school-running model promotes relevant innovation and entrepreneurship ideas in the School of food quality and safety schools and related industry associations (associations).

(3) The stable mode period.

According to the needs of the country's local development, we will do a top-level design for the scale and quality of innovative and entrepreneurial talents, further strengthen the comprehensive quality training, and strive to better serve the "healthy China" and "One Belt, One Road" strategy.

4. Analysis on the Quality Evaluation System of Innovation and Entrepreneurship Education for Food Quality and Safety Specialty

4.1. Food Quality and Safety Professional Practice Courses

Combine with the actual situation of the school to summarize. In order to adapt to the general trend of the times, in the teaching and content setting of food quality and safety courses, we firstly integrate the teaching content of the compulsory main courses and establish them as the core courses of the professional subjects. Because the content of the course is not only the basic ability skills that professional students must possess, it is super comprehensive and practical, and students in the profession must be required to complete the required credits. In addition, more practical practice, including some comprehensive experimental courses, such as food technology, food analysis, food quality and safety control technology, these three courses are established as key experimental courses, and they are detailed According to the status quo of human resources structure of market enterprises, it is adjusted to three professional directions. There are matching practical training projects in each course and every link.

In the design of the specific training program for professional talents, there are 18 courses in the school food quality and safety program, which have corresponding experimental courses, including 2 comprehensive experimental courses, 4 basic experimental courses, and application design experimental courses. There are 8 items and there are 4 main course courses.

4.2. Construction of Quality Evaluation System for Innovation and Entrepreneurship Education

It is imperative to carry out quality and safety professional innovation and entrepreneurship education quality evaluation. In the process of exploring and practicing the quality evaluation of innovative entrepreneurship education, the following three points are effectively achieved.

Firstly, the principle of comprehensiveness. College leaders and professional teachers should clearly understand the essence of innovation and entrepreneurship education, which is a systematic project to comprehensively improve the quality of personnel training. Therefore, it is necessary to implement differentiated and hierarchical innovation and entrepreneurship education for all professional students and integrate them into the whole process of professional talents.

Secondly, the principle of development. Compared with the traditional teaching mode, the innovative entrepreneurship education is more targeted in the practice of innovative entrepreneurship education. It can not only cultivate and train students' practical operation and application ability, but also improve their basic skills. It can also strengthen the awareness of innovation and entrepreneurship of professional students. For the teaching of students' innovative and entrepreneurial ideas, the concept of development should be applied to the practice of innovation and entrepreneurship, and the ideas of innovation and development should be integrated into the content of education quality evaluation.

Thirdly, professional characteristics. Different professions have different subject characteristics, and food quality and safety majors are also the same. For higher education institutions that offer such professional courses, students should be guided to reform according to their specialties, and to build an “embedded” innovative entrepreneurship model. In the construction and implementation level of the evaluation system, it is necessary to cut in from four levels: the evaluation index of educational resources input; the evaluation index of teacher education team input; the evaluation index of operation mechanism; the evaluation index of achievement output. Any institutional change requires a certain amount of resources, and education for innovative entrepreneurship is no exception. Compared with the traditional food quality and safety professional teaching mode, the professional curriculum teaching under the innovative entrepreneurship education system has greater demand for educational resources, such as requiring schools to establish laboratories, practical training bases, and entrepreneurial project platforms. In order to ensure the feasibility and effectiveness of various evaluation indicators, a quality evaluation system with multiple subjects, multiple methods and normal monitoring can be established in a targeted and strategic manner, and the corresponding quality evaluation operation mechanism is strengthened.

5. Construction of TOPSIS Evaluation Model of Entropy Right for Innovation and Entrepreneurship Education of Food Quality and Safety

5.1. Entropy Method

When calculating the evaluation of university education quality, each index has different weight. This paper uses entropy weight method to give each index weight. The entropy weight method uses the information entropy to calculate the entropy weight of the indicator according to the degree of deviation between the indicators, and then further determines the indicator weight through the entropy weight [30]. This method can objectively reflect the hidden information in the data, improve the resolution of the index, and translate the index information in an all-round way. The smaller the index entropy, the greater the entropy weight, and the more important the index; and vice versa.

5.2. TOPSIS Model

TOPSIS is a sorting method that approximates the ideal solution. It is a common method of multi-attribute analysis and a decision-making technique often used in system engineering. It takes the distance between the evaluated object and the evaluation standard as the criterion for ranking the evaluated object. The evaluation method. Evaluating the quality of education by calculating how close (or deviating) the target is to the optimal solution and the worst solution can comprehensively and objectively reflect the true effects of college innovation and entrepreneurship education.

5.3. Analysis of Model Building Steps

1) Build a standardized evaluation matrix

Suppose there are m evaluation indicators and n objects to be evaluated, construct an initial evaluation matrix $X = (x_{ij})_{m*n}$

$$X = \begin{bmatrix} x_{11} & x_{12} & \Lambda & x_{1n} \\ x_{21} & x_{22} & \Lambda & x_{2n} \\ \mathrm{M} & \mathrm{M} & \mathrm{M} & \mathrm{M} \\ x_{m1} & x_{m2} & \Lambda & x_{mn} \end{bmatrix}_{m*n} \tag{1}$$

Among them, xij is the evaluation value of the j-th object to be evaluated under the i-th evaluation index.

According to the formula (2) (3), the matrix X is normalized to obtain the standardized matrix R. If the evaluation index is income type (the greater the income, the better), then

$$r_{ij} = \frac{x_{ij}}{\sqrt{\sum_{i=1}^{n} x_{ij}^2}} \tag{2}$$

If the evaluation index is cost-based (the smaller the cost, the better), then

$$r_{ij} = \frac{\frac{1}{x_{ij}}}{\sqrt{\sum_{i=1}^{n} (\frac{1}{x_{ij}})^2}} \tag{3}$$

2) Determine the index weight

The entropy method can effectively consider the degree of variation of the index Xi and objectively reflect its importance. The calculation formula is:

$$\varpi_i = \frac{1 - H_i}{m - \sum_{i-1}^{m} H_i} \tag{4}$$

Among them, $H_i = \frac{1}{\ln n} \sum_{j=1}^{n} f_{ij} Inf_{ij}$ $\mathrm{H_i}$ is information entropy; $f_{ij} = \frac{r_{ij}}{\sum_{j=1}^{n} r_{ij}}$ fij is the characteristic proportion of the index, In0=0.

3) Construct an evaluation matrix based on entropy weight

According to formula (4), the weight of each evaluation is obtained.

4) Sort the participants

Calculate positive and negative ideal solutions. The positive ideal solution is the optimal solution, that is, the set of the maximum values of each index; the negative ideal solution is the most

Inferior solution, that is, the set of the minimum values of each indicator. The calculation formula is:, j=1,2,...,m.

Calculate the distance from each plan to the positive and negative ideal solution, so that the

distance from each participant to the positive ideal solution is the distance from each participant to the positive ideal solution.

The distance from the object to the negative ideal solution. then,

$$d_i^+ = \sqrt{\sum_{j=1}^{m} (d_{ij}^+)^2} \tag{5}$$

$$d_i^- = \sqrt{\sum_{j=1}^{m} (d_{ij}^-)^2} \tag{6}$$

In this way, the pros and cons of each participant can be ranked according to the degree of closeness.

6. Experimental Research on Food Safety Quality in the Quality Evaluation System of Innovation and Entrepreneurship Education

6.1. Experimental Protocol

In order to make this experiment more scientific and effective, this experiment is conducted by going deep into the food safety major of a university in a certain place, and using a questionnaire survey method to compare the traditional food safety quality professional education evaluation with the innovation and entrepreneurship education quality evaluation system studied in this article. A comparative analysis is used to judge the feasibility of building a food safety quality evaluation system in the quality of innovation and entrepreneurship education studied in this article. Based on the above again, in order to further the experimental analysis of the research content of this article, this experiment was conducted on the basis of network interviews with related food safety and quality professors on the food safety and quality evaluation system studied in this article. In-depth analysis.

6.2. Research Methods

1) Questionnaire survey method: This experiment set up targeted questionnaires based on asking relevant experts, and conducted a questionnaire survey on students in a semi-closed manner, the purpose of which is to promote students to fill in correctly.

2) Field research method: This research conducted an investigation on the current food safety quality evaluation system and collected data by going deep into the food quality major of a university in a certain place. These data provide a reliable reference for the topic of this article.

3) Mathematical statistics: use relevant software to conduct statistics and analysis on the research results of this article.

7. An Experimental Analysis of Food Safety Quality in the Quality Evaluation System of Innovation and Entrepreneurship Education

7.1. Comparative Analysis of Food Safety and Quality Evaluation

In order to make this experiment more scientific and effective, this experiment conducted a questionnaire survey of students majoring in food safety and quality, and analyzed the obtained data using mathematical statistics. The final data is shown in Table 1.

Table 1. Comparative analysis of food safety and quality evaluation

	Instructional design	Faculty	Student performance	University environment
TOPSIS	72.3%	68.9%	71.4%	73.6%
Traditional	62.8%	63.1%	66.9%	64.2%

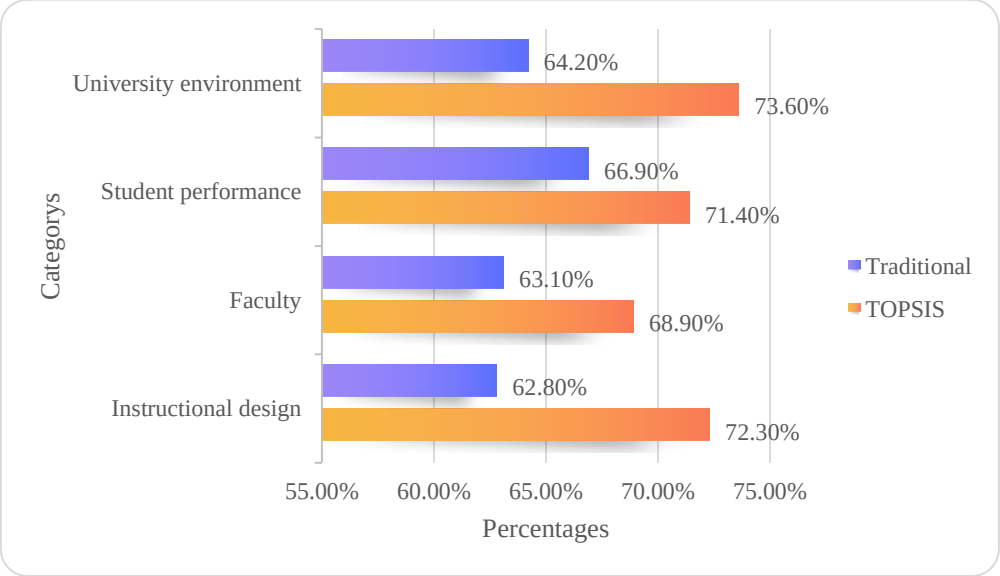

Figure 1. Comparative analysis of food safety and quality evaluation

It can be seen from Figure 1 that, compared with the traditional food safety quality evaluation system, the entropy weight TOPSIS evaluation index model studied in this paper is more accurate in many aspects of the evaluation area, especially when it exceeds about 10% in the evaluation of teaching design. Reflects the feasibility of the content studied in this article.

7.2. Performance analysis of the quality evaluation system of innovation and entrepreneurship education

In order to further carry out the experimental analysis of the content studied in this article, this experiment conducted a network interview with a professor of food safety and quality. The collected data are shown in Table 2.

Table 2. Performance analysis of the quality evaluation system of innovation and entrepreneurship education

	Learning interest	learning method	learning result	Others
Man	7.15	7.59	8.23	6.41
Woman	7.36	7.17	8.14	5.79

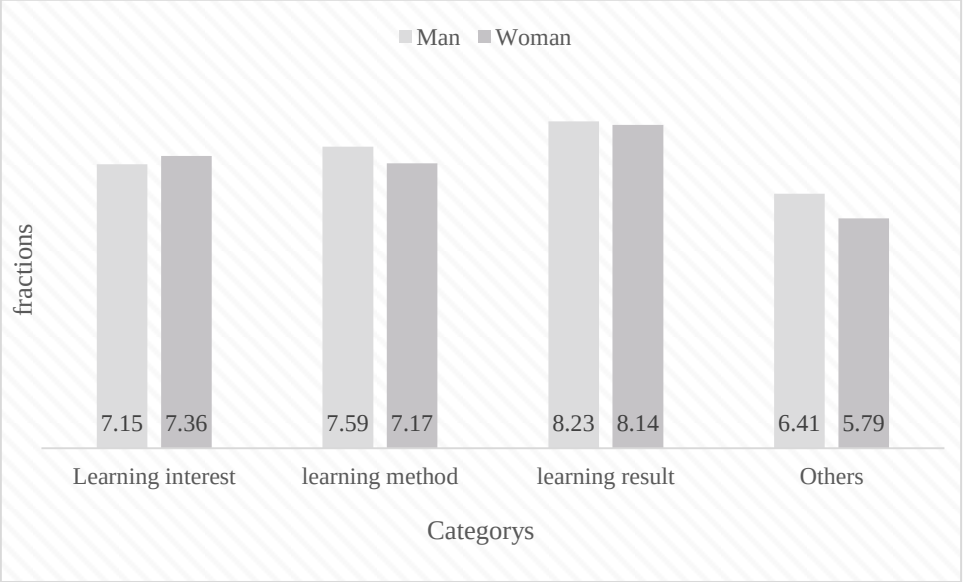

Figure 2. Performance analysis of the quality evaluation system of innovation and entrepreneurship education

It can be seen from Figure 2 that the scores of the innovation and entrepreneurship education evaluation quality system studied in this article are all above 5, which reflects the feasibility of the content studied in this article. Among them, the scores for the learning effect exceed 8 or more, which fully reflects the innovation and entrepreneurship education evaluation. The excellent performance of the system.

8. Summary

Food quality and safety is an eternal theme of human survival and healthy development. It is a comprehensive discipline that is closer to people's lives. The discipline shows different characteristics in different stages of market economy development. Therefore, the demand for the talent structure of the industry's entrepreneurial industry is constantly changing. This study re-examines this realistic problem, and should serve the social development, industry construction, taking continuous innovation, continuous exploration, and continuous practice, and for the successful realization of China's food quality and safety strategic goals, we will cultivate more excellent professionals who are suitable for it.

Funding

This article is not supported by any foundation.

Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Conflict of Interest

The author states that this article has no conflict of interest.

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