



Influencing Factors of Student Satisfaction With the Teaching Quality of Fundamentals of Entrepreneurship Course Under the Background of Innovation and Entrepreneurship

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Innovation and entrepreneurship education is a key way to cultivate applied talents in colleges and universities. This article aimed to optimize the teaching quality of the Fundamentals of Entrepreneurship courses by constructing a conceptual model of “teaching quality–student satisfaction.” Teaching quality is divided into four indicator elements, teaching content, teaching methods, teaching conditions, and teaching management. A student satisfaction questionnaire was designed to measure the teaching quality of a Fundamentals of Entrepreneurship course. The reliability and validity of survey data from Linyi University were analyzed using SPSS.20 software. Through correlation and multiple regression analysis, it can be seen that the teaching content, teaching methods, teaching conditions and teaching management have a significant positive correlation with the teaching quality of the Fundamentals of Entrepreneurship course, which is an important factor affecting student’s satisfaction, and there is a certain gap between the expectation of teaching quality and student’s satisfaction. On this basis, suggestions are put forward to improve student satisfaction with the teaching quality of Fundamentals of Entrepreneurship courses, and to provide empirical evidence and recommendations for continuously improving the teaching quality of Fundamentals of Entrepreneurship courses, thereby improving college students’ employment and entrepreneurship ability.

Keywords: fundamentals of entrepreneurship, innovation and entrepreneurship education, teaching quality, students perceived, satisfaction

INTRODUCTION

Innovation and entrepreneurship education is an important measure used to cultivate the innovative spirit of college students and improve the quality of entrepreneurship and employment. For application-oriented colleges and universities, innovation and entrepreneurship education is both necessary and urgent in terms of the types and quality of the talent cultivation, the promotion of entrepreneurship, and the employment of college students (Chen et al., 2019a; Yang, 2020). As the core course of innovation and entrepreneurship education, Fundamentals of Entrepreneurship is a compulsory course based on advanced innovation and entrepreneurship education concepts and

solid innovation and entrepreneurship education practice, meeting the skills needs of contemporary college students and future economic development (Huang et al., 2017; Liang et al., 2021; Zhao and Zhang, 2021).

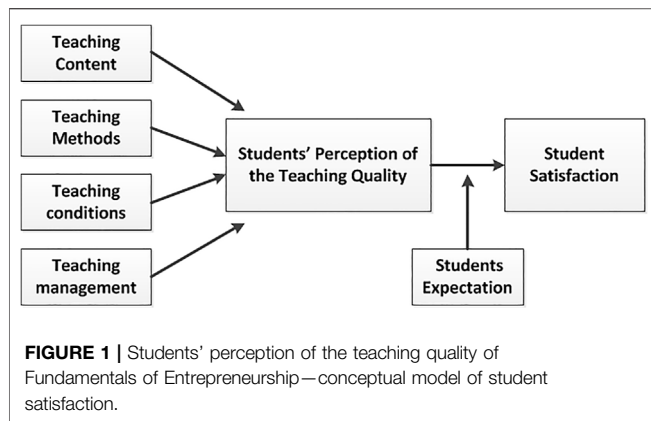
With the in-depth development of innovation and entrepreneurship education, more and more scholars have begun to pay attention to research on the teaching quality of university courses in the context of innovation and entrepreneurship (Huang and Huang, 2019; Totian, 2019; Huang and Du, 2020). Liu (2019) made a systematic evaluation of the quality of innovation and entrepreneurship education in universities based on data on teachers in functioning departments of or in the teaching institutions of innovation and entrepreneurship education. Huang et al. (2019) summarized the current development of innovation and entrepreneurship education in universities in a survey of student satisfaction with innovation and entrepreneurship education in many universities across the country. Diao (2020) constructed an evaluation model for the teaching effect of innovation and entrepreneurship courses based on big data. Yan and Yang (2018) studied the improvement of the teaching quality of art courses in education majors from the perspective of innovation and entrepreneurship education. Zhang and Huang (2019) proposed measures to promote higher vocational college students' innovation and entrepreneurship development.

As a central focus of innovation and entrepreneurship education, students have the most critical say in their satisfaction with the teaching quality of the Fundamentals of Entrepreneurship curriculum (Harkema and Schout, 2010; Huanget al., 2019; Lin et al., 2020). Therefore, many scholars are also actively engaged in innovation study on student satisfaction with entrepreneurship courses, for example, Sisilia used the Kano Model to analyze the influencing factors on student satisfaction with entrepreneurship courses and to determine the influence of different indicators on student satisfaction by calculating the coefficient of customer satisfaction (Sisilia and Garmaisa, 2014). Huang and Liu selected four application-oriented universities to study student satisfaction with the innovation and entrepreneurship courses offered by the universities (Huang and Liu, 2018). Hu (2019) pointed the specific dimensions of student satisfaction in entrepreneurship courses in Colleges and universities are not only an important consideration angle of curriculum evaluation, but also a key index of teaching quality evaluation. Tian (2016) conducted a questionnaire survey on students from 12 different types of colleges and universities. The results showed that the students were particularly not satisfied with the entrepreneurship curriculum and practical guidance. Through empirical research, Sun et al. (2016) constructed and tested the structural model of satisfaction with university teaching and provided suggestions for universities to improve satisfaction levels with teaching. Huang and Du. (2020) conducted a study on student satisfaction with the quality of innovation and entrepreneurship courses in universities with "Double First-class" construction in China. They found that there was no obvious difference between the implementation of innovation and entrepreneurship courses and the traditional courses and that student satisfaction with the innovation and entrepreneurship faculty needed to be improved. Guo and Luo

(2020) found that students' personal backgrounds have different effects on their satisfaction with entrepreneurship education. Degree level has a significant positive correlation with satisfaction with courses, teachers, and policies but a significant negative correlation with satisfaction with the practice terrace. Taking the teaching of the Fundamentals of Entrepreneurship course as an example, Lu et al. (2021), through the statistical analysis of the course teaching forum interaction and satisfaction survey data, found that students generally had a positive evaluation of entrepreneurship courses and course resources. In the context of innovation and entrepreneurship, student satisfaction with the teaching quality of entrepreneurship courses varies. Therefore, it would help to improve the quality of innovation and entrepreneurship education in universities to identify the urgent needs of students for innovation and entrepreneurship courses by studying student satisfaction with entrepreneurship courses.

At present, the development trend of innovation and entrepreneurship courses shows the characteristics of fast progress, widespread popularity, and diversification. However, the speed and perfection of course construction for innovation and entrepreneurship courses lag behind the demands of students and society (Li, 2017; Pang et al., 2018; Chen et al., 2021). For example, in empirical research, Azila-Gbetor and Harrison (2013) also found that there was a weak connection between entrepreneurship courses in polytechnical colleges and the actual preparation for setting up enterprises, indicating that professional knowledge teaching, on-campus entrepreneurship education, and off-campus entrepreneurship resources were disconnected. Shen (2016) studied the curriculum system and practical experience of Stanford University in the United States and found that entrepreneurship courses should be integrated with professional courses to gradually integrate entrepreneurship ideas into professional teaching. In a study by Kang et al. (2016), 70.6% of the students thought that the entrepreneurship course was unsatisfactory. In addition, due to the shortage of teachers for entrepreneurship and innovation in colleges and universities, the lack of high-quality faculty also affects the teaching quality of Fundamentals of Entrepreneurship courses (Liu et al., 2014; Chen et al., 2015; Huang et al., 2019). Therefore, it is vital to explore the main factors affecting the teaching quality of Fundamentals of Entrepreneurship courses based on student satisfaction.

To guarantee the teaching quality of Fundamentals of Entrepreneurship courses and further explore the main influencing factors that affect it, this study constructed a "teaching quality–student satisfaction" concept model from the perspective of students' perceptions to examine the quality of teaching as a four dimension index consisting of teaching content, teaching methods, teaching conditions, and teaching management. A questionnaire was designed to assess student satisfaction with the teaching quality of Fundamentals of Entrepreneurship courses. Survey data from Linyi University were analyzed using SPSS.20 software to investigate the teaching quality of Fundamentals of Entrepreneurship courses and to determine the main factors affecting student satisfaction. On this basis, suggestions for the improvement of student satisfaction with the teaching quality of Fundamentals of Entrepreneurship courses were proposed, providing empirical evidence and



recommendations for the continuous improvement of the teaching quality of Fundamentals of Entrepreneurship courses.

MODEL CONSTRUCTION AND HYPOTHESES

Constructing a Conceptual Model of “Teaching Quality–Student Satisfaction”

Based on the customer-perceived service quality model and the theory of customer satisfaction, it was proposed that the four influencing dimensions of teaching content, teaching methods, teaching conditions, and teaching management, be used as independent variables to evaluate the quality of students' perception of teaching quality in Fundamentals of Entrepreneurship courses. Students' perception of teaching quality and student satisfaction were also taken as dependent variables, supporting teaching quality as an antecedent variable of student satisfaction, forming a conceptual model diagram studying the relationship between “teaching quality–student satisfaction,” as shown in **Figure 1**.

According to the theory of customer satisfaction, the higher the students' expectations, the easier it is to perceive the gap between the actual curriculum teaching quality and expectations, thereby lowering their satisfaction with the quality of teaching.

Research Hypotheses

This research takes Linyi University's Fundamentals of Entrepreneurship course as an example to study the relationship between the teaching quality of this entrepreneurship course and the satisfaction of students. This study puts forward the following research hypotheses, taking into account the relevant research background and the specific practice of entrepreneurship foundation teaching.

H1: Teaching Content has a Significant Positive Impact on Teaching Quality

The content of instruction has a significant positive effect on the quality of instruction, which is a hypothesis derived from a study of the entrepreneurship curriculum system at Babson College of

Business and the content of entrepreneurship courses in China. Li et al (2019) found the core problems of the construction of entrepreneurship curriculum system, such as unclear positioning, separation from professional education, disconnection between content and practice, have not been fundamentally reversed. Process-based instruction replaces the traditional functional management of content. The author investigates the current 19 textbooks commonly used in the basic courses of entrepreneurship in Chinese universities, 14 of which are still traditional functional management teaching content. The differences in teaching content between the United States and China, as well as the current slow development of innovation and entrepreneurship education in China, led the author to examine teaching content as a hypothetical influencing factor.

H2: Teaching Methods Have a Significant Positive Impact on Teaching Quality

The teaching process is an important condition for achieving educational goals, teaching tasks and improving teaching quality. Teaching method is an indispensable tool to achieve the purpose of teaching. Teaching methods that meet the needs of the curriculum and the needs of students can effectively improve the quality of teaching. The undergraduate Entrepreneurship School of Babson Business School has been ranked first in the United States for more than 20 consecutive years. Its experiential entrepreneurial education teaching method ensures that the skills learned in entrepreneurship courses are vital to the success of any business (Babson College, 2017). Zheng (2019) reported that one of the most important reasons for the decline in the quality of teaching in Chinese universities is the teaching methods. Teaching methods that meet the needs of the curriculum and the needs of students can effectively improve the quality of teaching. Liu (2019) pointed out that the teaching method of Fundamentals of Entrepreneurship mainly focuses on classroom theory teaching, is limited to Book Entrepreneurship knowledge, and lacks practical guidance such as case sharing, group discussion and entrepreneurship training. In turn, this affects the overall quality of higher education and talent development. Julie et al. (2014) found in their study that non-traditional teaching methods can promote social equity. Bao (2017) concluded that whether teachers can accurately understand teaching and appropriately use different teaching methods directly affects the process of teaching method reform and the effect of teaching quality.

H3: Teaching Conditions Have a Significant Positive Impact on Teaching Quality

The teaching conditions in the thesis include teaching equipment, teacher qualifications, learning platforms and training bases. Among them, teaching equipment is the basic condition for guaranteeing teaching, besides, teacher qualifications and training base are important conditions. Zhang (2018) pointed out that curriculum is the basic unit of teaching quality, and teaching conditions are an important

prerequisite and fundamental guarantee for realizing the basic functions and tasks of higher education, therefore, teaching conditions should be strengthened in three aspects: human, financial, and material, taking into account the needs of curriculum construction and teaching implementation. Sun et al. (2020) found that colleges and universities create conditions to establish innovation and entrepreneurship curriculum management institutions, which can effectively promote the construction, implementation and management of innovation and entrepreneurship curriculum, and research and promote the educational methods, teaching models and innovation theories of innovation and entrepreneurship. Galian et al. (2016) reported that it is necessary to ensure the necessary and sufficient conditions for the development of educational efforts. In the absence of infrastructure and adequate human resources, this work cannot be done qualitatively in any case. Chen et al. (2019b) argue that starting from practice can also create theory in turn. “To develop the concept of entrepreneurship education, it is not enough to understand and talk about entrepreneurship. It requires action and practice.” (Babson College., 2017).

H4: Teaching Management has a Significant Positive Impact on Teaching Quality

The concept of instructional management in this paper can be specifically described as curriculum instructional management, including elements such as evaluation, credit hours, course selection, and schedule. These elements related to the curriculum, when set up, are one-way operations of the school and are not under the control of the students. Xiao et al. (2017) reported that in the design and arrangement of teaching quality management, teaching content is an important factor affecting the slow development of innovation and entrepreneurship education in China, and many studies have shown that university students are not satisfied with the content of entrepreneurship courses. This kind of teaching management without students' participation will affect teaching quality to a certain extent. What's more, It is of great relevance to study and analyze teaching and learning management from the perspective of students' satisfaction with the quality of teaching and learning. Therefore, the author presents the above hypothesis using this concept as an indicator element. Zhang (2018) reported that improving the quality of teaching and learning depends to a large extent on the effective implementation of classroom instructional management. Course management is the core content of teaching management. Course evaluation is an important part of course teaching management, not only as a feedback to the teaching process, but also as an important basis for improving teaching quality, promoting teaching reform and formulating talent training program.

SURVEY DESIGN AND ANALYSIS

Survey Design

1) Questionnaire design

After proposing the research hypothesis and model, to carry out empirical research and to make the measurement items of this study as scientific and reasonable as possible. Through the results investigation, pre survey and test of the existing literature, combined with the opinions of many experts in the field of pedagogy and teaching managers in Colleges and universities, and referring to the design principle of SERVQUAL scale (Babakus and Boller, 2004), a questionnaire on students' perception of teaching quality based on entrepreneurship basic courses is finally designed. The order of questions is carried out in turn according to the four influencing dimensions of teaching quality, There are 16 secondary survey indicators, as shown in **Table 1**. Based on the model of the student satisfaction inventory, the questionnaire uses the Likert five level scale in the score summation scale to score the statement contents of the measurement terms, and assigns five to one points “strongly agree” to “strongly disagree”.

2) Sample description

This survey was conducted from april 1 to June 1, 2020, among students enrolled in Linyi University. The students responded to a questionnaire on the perceived service quality of students in entrepreneurship foundation courses. A random sampling of grades, genders, and disciplines was conducted to ensure the balance of subject and gender distribution. A total of 600 questionnaires were distributed, and 551 were returned, a recovery rate of 91.83%. Among them, 524 questionnaires were valid, an effective rate of 95.09%. The background information of specific survey samples is shown in **Table 2**.

Reliability and Validity Analysis

1) Reliability analysis

Reliability analysis of the questionnaire was carried out to check the consistency of the 16 secondary items in the questionnaire. The Cronbach's α coefficient method is one of the most widely used reliability measurement methods. The higher the Cronbach's α coefficient value, the more consistent the results of the questionnaire, and the higher the reliability of the questionnaire. According to the measurement standard proposed by Cronbach, if $\alpha < 0.35$, reliability is considered to be low and the questionnaire should not be used; if $0.35 \leq \alpha \leq 0.7$, then reliability is considered to be medium and the questionnaire is acceptable; if $\alpha > 0.7$, reliability is high, and the questionnaire design is acceptable. **Table 3** shows the reliability analysis results of item-to-total correlation statistics obtained using SPSS.20 software. The α coefficient of all the question items is 0.943, which is greater than 0.7, indicating that the results are highly reliable.

In **Table 4**, the test of the four dimensions of students' perception of the teaching quality of the Fundamentals of Entrepreneurship course shows that the coefficients of all dimensions of the students' perception are between 0.750 and 0.929, all greater than 0.7, indicating that from an overall point of view, the use of the four-dimensions questionnaire has high credibility.

2) Validity analysis

TABLE 1 | Evaluation items of students' perception of teaching quality based on Fundamentals of Entrepreneurship course.

Level indicator	Secondary indicators
Teaching content	1.Richness of theoretical content 2.Practical content of the curriculum 3.Advanced nature and novelty of teaching content 4.Systematic teaching content
Teaching method	5.Appropriate teaching behavior and good teaching atmosphere 6.Key parts of the lecture are prominent, and difficult and simple points complement each other 7.Teaching is a combination of theory and practice 8.Attention paid to students' thinking training and ability training
Teaching condition	9. Basic teaching equipment 10.Qualifications of teachers 11.Online learning platform 12.Training base for entrepreneurship education
Teaching management	13.Curriculum Timetable 14.How students choose the curriculum 15.Curriculum schedule 16.Evaluation method

TABLE 2 | Survey sample background information.

Category	Items	Number	Percent (%)
Gender	Male	271	51.7
	Female	253	48.3
Major	Science and Engineering	165	31.5
	Literature and History	153	29.2
	Management	144	27.5
	Cultural, Arts and Physical Edu	46	8.8
	Others	16	3
Grade	Grade 1	0	0
	Grade 2	269	51.3
	Grade 3	160	30.5
	Grade 4	95	18.2

TABLE 3 | Item-to-total correlation statistics results.

Question item	Amended question item and overall correlation	a coefficient after deleting the question item
Q1	0.594	0.943
Q2	0.666	0.942
Q3	0.626	0.942
Q4	0.512	0.942
Q5	0.604	0.942
Q6	0.491	0.943
Q7	0.51	0.943
Q8	0.507	0.943
Q9	0.407	0.944
Q10	0.624	0.943
Q11	0.604	0.942
Q12	0.577	0.942
Q13	0.675	0.941
Q14	0.425	0.944
Q15	0.556	0.942
Q16	0.438	0.942

The paper used factor analysis to test validity. Before performing factor analysis, it was necessary to evaluate the suitability of factor analysis to determine whether the data

TABLE 4 | Cronbach's α coefficient of each dimension.

Evaluation dimension	Cronbach's α coefficient
Teaching content	0.750
Teaching method	0.856
Teaching condition	0.929
Teaching management	0.901

obtained were suitable for factor analysis. The test method adopted was the Kaiser–Meyer–Olkin (KMO) sample measurement, and the KMO value obtained was used to check the partial correlation between variables.

The questionnaire had 16 items measuring the variables of the teaching quality level. Common factors were extracted using the principal component analysis method of factor analysis. SPSS.20 software was used to perform factor analysis on the data, resulting in a KMO value of 0.874, indicating the suitability of the data for factor analysis. **Table 5** shows the specific analysis, where factor 1 is the teaching content, factor 2 is the teaching method, factor 3 is the teaching condition, and factor 4 is the teaching management.

The general principle of determining the number of potential factors is when "the characteristic value is greater than 1" or "the sum of the maximum characteristic values accounts for more than 70% of the sum of the total characteristic roots." Therefore, four common factors were selected for the results of this survey. The characteristic values were all greater than 1, which met the requirements for the results of this survey. From the above factor analysis, it can be seen that the four factors extracted in this survey result are basically consistent with the four dimensions proposed, and the questionnaire has good validity. Therefore, the model of students' perception of teaching quality has high reliability and validity. The differences between the indicators are apparent, and there is little overlap. Using this evaluation model to investigate the teaching quality of the

TABLE 5 | Factor analysis eigenvalues and variance contribution rate.

Divisor	Eigenvalue	Variance contribution rate (%)	Cumulative interpretation percentage (%)
1	2.297	4.53	4.53
2	3.543	16.078	20.608
3	3.882	38.902	59.51
4	3.208	8.074	67.584

TABLE 6 | Correlation analysis between students' perception of teaching quality and various dimensions.

Students' perception of teaching quality	Teaching content	Teaching method	Teaching condition	Teaching management
Pearson Correlation Analysis	0.247	0.458	0.529	0.387

TABLE 7 | Summary of research hypothesis test results.

NO.	Assumption	YES/NO
H1	Teaching content is positively correlated with students' perception of teaching quality	YES
H2	Teaching methods are positively related to students' perception of teaching quality	YES
H3	Teaching conditions are positively correlated with students' perception of teaching quality	YES
H4	Teaching management is positively related to students' perception of teaching quality	YES

Fundamentals of Entrepreneurship course, the results of the investigation are valid.

Correlation and Multiple Regression Analysis

1) Correlation analysis

We tested the correlation between the four dimensions in the questionnaire and the teaching quality. We used Pearson Correlation Analysis to test the correlation between teaching content, teaching methods, teaching conditions, teaching management, and students' perception of teaching quality, thereby establishing the correlation between each dimension and the overall teaching quality. The specific analysis results are shown in **Table 6** and **Table 7**.

Table 6 shows that the four dimensions in the questionnaire, namely teaching content, teaching methods, teaching conditions, and teaching management, have a significant positive correlation with the teaching quality of the Fundamentals of Entrepreneurship course as perceived by students. Therefore, these four dimensions are important factors affecting student satisfaction, thereby verifying the hypotheses of this study, as shown in **Table 7**.

2) Multiple regression analysis

We used ANOVA to explore the degree of influence of each dimension on the overall teaching quality evaluation and to understand the importance of each dimension and the influence of the four dimensions in the model on the students' perception of teaching quality. The independent influence of each

variable and the mathematical model of multiple linear regression are calculated as follows:

$$y = 0.408 + 0.241x_1 + 0.216x_2 + 0.383x_3 + 0.152x_4$$

In the formula, y is the student's perception of the teaching quality of the Fundamentals of Entrepreneurship course, the dependent variable; the constant term of the equation is 0.408, and the coefficients of teaching content x_1 , teaching method x_2 , teaching conditions x_3 , and teaching management x_4 are 0.241, 0.216, 0.383, 0.152, respectively, showing the degree of influence of the integration of various dimensions on the overall teaching quality.

Table 8 is the table of regression coefficients of students' perception of the teaching quality of the Fundamentals of Entrepreneurship course. The table shows that the largest Beta coefficient in this study is the teaching content, which means that this variable has the greatest contribution to the interpretation of students' perception of teaching quality, followed by teaching conditions, teaching methods, and teaching management.

Analysis of Teaching Quality Gap

When designing the questionnaire, we drew on the concepts of the SERVQUAL scale and used different guides for questions on the same content. One question gets the expected value, and the other question gets the satisfaction value. The gap can be used as the teaching quality gap. The greater the absolute value of the gap, the poorer the quality of curriculum teaching.

The gap table for the teaching quality of the Fundamentals of Entrepreneurship course in **Table 9** shows that there is a definite gap between the expected value of teaching quality and the satisfaction of students, indicating that the teaching quality of the Fundamentals of Entrepreneurship course needs to be

TABLE 8 | Table of regression coefficient.

Model	Non-standardized coefficients		Standardized coefficients	t	Significance
	B	Standard deviations	Beta		
(Constant)	0.408	0.129		3.296	0.001
Teaching content	0.241	0.028	0.275	3.791	0
Teaching method	0.216	0.031	0.225	3.956	0
Teaching condition	0.383	0.032	0.259	4.132	0
Teaching management	0.152	0.034	0.179	3.473	0

TABLE 9 | Teaching quality gap table.

Influence dimension	Expected mean	Satisfaction mean	SQ _i
Teaching content	4.49	4.1	-0.39
Teaching method	4.57	3.97	-0.6
Teaching condition	4.46	3.95	-0.51
Teaching management	4.84	4.52	-0.32

improved. In addition, students' perceptions of the teaching methods and teaching conditions of the Fundamentals of Entrepreneurship course are quite different, and schools should focus on optimizing and improving these two aspects.

COUNTERMEASURES AND SUGGESTIONS

According to the above correlation and multiple regression analysis, the teaching content, teaching methods, teaching conditions and teaching management have a significant positive correlation with the teaching quality of the Fundamentals of Entrepreneurship course, which is an important factor affecting students' satisfaction. In addition, according to the gap analysis of teaching quality of entrepreneurship basic courses, there is a definite gap between the expected value of teaching quality and the satisfaction of students. Therefore, the paper puts forward corresponding improvement suggestions from the four aspects of teaching content, teaching methods, teaching conditions and teaching management, so as to further improve the teaching quality of entrepreneurship basic course.

- 1) Attach importance to the main position of teaching content in the teaching process. Institutions of higher learning should fully understand the needs of students and track the dynamic status of students' innovation and entrepreneurship development. Reasonable selection of teaching content can make learners fully understand the arguments to be expressed in the teaching content through content learning, so that the teaching content can truly achieve the three goals of knowledge, thinking ability and emotion in classroom teaching (Lai, 2019). The teaching content and teaching conditions of the Fundamentals of Entrepreneurship course should consider not only students' basic theoretical study but also the stronger cultivation of students' entrepreneurial thinking ability, encourage learners to explore and master the content, connect the content with their experience, so as to urge students to challenge the content,

and let learners actively participate in the construction of teaching content. Courses with high student satisfaction could help students to establish a strong set of values and a good outlook on business life.

- 2) Create "School - Family - Society" integration of entrepreneurial teaching conditions. Domestic research on the teaching conditions of entrepreneurship education is still limited to the level of teacher construction, and less attention is paid to the teaching environment, teaching equipment, teaching evaluation, teaching materials and practical conditions. From the perspective of effective teaching, only when multiple teaching elements such as teachers, students, textbooks, teaching objectives, teaching methods, and teaching evaluations are matched with each other, can teaching be truly efficient and effective (Zhang and Sheng, 2020). Therefore, universities should move entrepreneurial classrooms to laboratories, training venues, incubation bases, and commercial institutions. The composition of entrepreneurship teachers should also be diversified, and there must be a new definition for the qualification of entrepreneurship teachers. In summary, the best entrepreneurial education and teaching conditions can be obtained within the scope of "School - Family - Society".
- 3) Completely subvert traditional education methods and implement diversified teaching methods. Zhang (2020) pointed out that learning from the French innovation and entrepreneurship education model, the implementation of project teaching methods, business proposal teaching methods, and experiential education methods. Combined with the current teaching methods of entrepreneurship courses in Chinese universities, we should promote diversified teaching situation design, actively create conditions and arrange target tasks, so that teachers and students can realize benign interaction through entrepreneurial project experience, so as to promote the development of entrepreneurial thinking. Building a multi-level training platform for innovative and entrepreneurial talents is an important way to reform the teaching methods of entrepreneurship courses (Li, 2017). In addition to the school entrepreneurship class, establish a practice base in enterprises or scientific research institutions to arrange more practice classes for students, so that students can really experience how to innovate and start a business in practice.
- 4) Strengthen the process management of entrepreneurship curriculum. Effectively manage the time arrangement of teaching links to ensure the teaching time and effect; While deepening the teaching reform, realize the effective combination of theory and practice; Actively introduce information means,

enrich teaching media and build curriculum website; Reform the course assessment methods, pay attention to the analysis of teaching effects, and actively promote, apply and share excellent entrepreneurial achievements.

CONCLUSION

As an important carrier of innovation and entrepreneurship education in universities, innovation and entrepreneurship courses are the most effective way to cultivate students' awareness of and ability in employment and entrepreneurship. This study explores the influencing factors between the teaching quality of Fundamentals of Entrepreneurship and student satisfaction. Using student expectations as the moderator variable, we constructed a conceptual model of "teaching quality–student satisfaction" for the Fundamentals of Entrepreneurship course, and we proposed relevant assumptions. We used a questionnaire to analyze and test the proposed hypotheses. Our study shows that teaching content, teaching methods, teaching conditions, and teaching management are the main four factors that affect students' perceptions of the teaching quality of the Fundamentals of Entrepreneurship course and that a gap exists between students' expectations and their satisfaction with teaching quality. The results of our research show that the teaching quality of the Fundamentals of Entrepreneurship course needs to be further improved. We provides suggestions for improving student satisfaction with the Fundamentals of Entrepreneurship course and for improving the teaching quality of the course. This paper explores the relationship between the quality of course teaching and student satisfaction from the perspective of

students, and has obtained certain results. However, due to the limitations of research ability and conditions, this study still has some This study only investigated the undergraduates of Linyi University, and the conclusions reached are likely to be unitary. In the future, we can continue to carry out research work in two aspects. First, increase the diversity and breadth of survey samples. Future research can start from increasing the breadth of survey samples, select more abundant samples for investigation, and find more diversified data sources. Second, dig out other factors that may affect satisfaction in addition to teaching quality and student expectations.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/**Supplementary Material**, further inquiries can be directed to the corresponding author.

AUTHOR CONTRIBUTIONS

SG and JZ: writing. SG: original idea. YC: advice on revisions. All authors contributed to the article and approved the submitted version.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/feduc.2021.730616/full#supplementary-material>

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