



**RESEARCH ON THE CURRENT SITUATION AND
MANAGEMENT OF TEACHING QUALITY EVALUATIONS IN
HIGHER VOCATIONAL COLLEGES -- A CASE STUDY OF
SHANDONG VOCATIONAL AND TECHNICAL COLLEGE OF
COMMERCE**

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**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF
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This Independent Study has been Approved as a Partial Fulfillment of the Requirement of International Master of Business Administration in International Business Management

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Title: Research on the Current Situation and Management of Teaching Quality Evaluations in Higher Vocational Colleges -- A Case Study of Shandong Vocational and Technical College of Commerce

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Abstract

The purpose of this study is to analyze the quality of higher education has always been a hot issue of all walks of life. There are three research objectives corresponding to the research question: 1) To explore the relationship between the SERVQUAL model and the behavior intention of college students in Shandong Vocational and Technical College of Commerce. 2) To investigate the influence of the environment of Shandong Commercial Vocational and Technical College on the satisfaction of Chinese college students. 3) To prove the influence of the comprehensive management level of Shandong Commercial Vocational and Technical College on the satisfaction of Chinese college students.

This research took Shandong Vocational and Technical College of Commerce as an example, taking the theory of comprehensive quality management and service quality theory, as well as constructivism theory as the main theory, from the perspective of higher education teaching service quality evaluation phenomenon (independent variable), educational environment and comprehensive management level on the satisfaction and loyalty of college students is analyzed, and through the quantitative survey method, 110 more valid questionnaires were obtained for statistical analysis using SPSS 26.0 software a self-designed a questionnaire on the Quality Management of Practical Training in Higher Vocational Colleges as the research tool. From data analysis, the content of the hypothetical was found to have positive effects, and therefore H1-H3 were all correct. In general, it is concluded that there are two deficiencies in the teaching quality of higher vocational colleges. One is that the school

emphasizes theory, but the practical teaching system is not perfect, and the requirement of constructivism theory is that it need to pay attention to learners. On the other hand, the limitation is that the service consciousness of the school needs to be improved, so suggestions are put forward in combination with the research purpose, improve the quality of higher vocational education.

Keywords: higher vocational colleges, teaching quality, student satisfaction, teaching evaluation

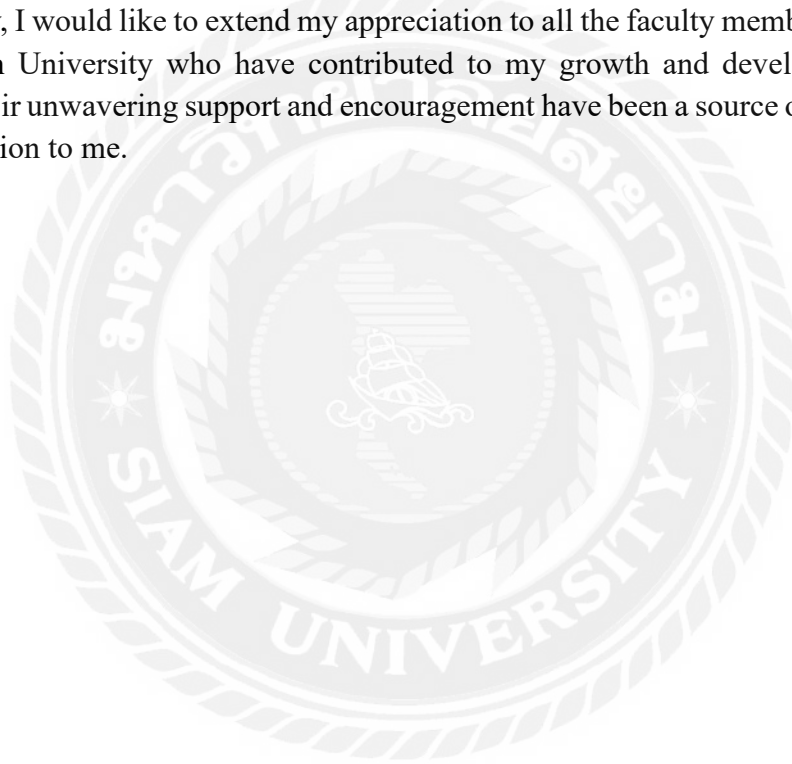


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Declaration

I, Lyu RuYue, hereby certify that the work embodied in this independent study entitled “Research on the Current Situation and Management of Teaching Quality Evaluation in Higher Vocational Colleges -- A Case Study of Shandong Vocational and Technical College of Commerce” is result of original research and has not been submitted for a higher degree to any other university or institution.

..... 吕若月

(Lyu RuYue)
Apr 1,2023



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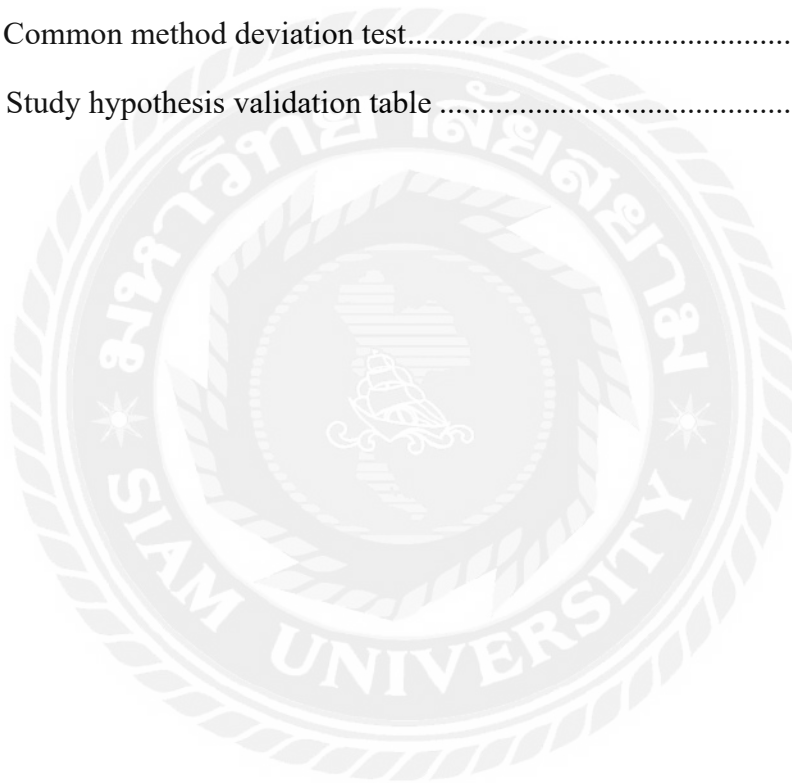


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Chapter 1 Introduction

1.1 Background of the Study

The research on the interaction between teaching service quality and service value effect, student satisfaction and student loyalty in higher vocational colleges has been one of the topics discussed by the service marketing academia. However, as far as the current situation is concerned, quality is the basis of people's satisfaction. As far as higher vocational education is concerned, education quality is the key to students' satisfaction, which is reflected in the fact that education is responsible for the overall development of students. Student satisfaction is the satisfaction of students' needs for education. Ambussaidi and Yang (2019) believed that teaching quality, as the core part of the quality of higher vocational education, determines the quality of talent cultivation to a certain extent, and the level of teaching quality also affects the satisfaction of students to a certain extent. Although the issue of the impact on the above situation has attracted the attention of some scholars at home and abroad, the relevant empirical research is still relatively lacking, which is not commensurate with the actual needs (Li, 2021). Therefore, this paper selects the students of Shandong Commercial Vocational and Technical College as the research object. The reason is that taking students as customers to carry out research is one of the critical emerging topics in the management and education circles in recent years, which is in line with the research purpose of this paper. Based on the above reasons, this paper has determined the topic and researched the satisfaction of the students of Shandong Vocational and Technical College of Commerce with the services provided by their universities.

With the rapid development of demonstrative higher vocational colleges in recent years, the construction of China's higher vocational colleges has entered the era of influence competition, and the construction of training bases in various higher vocational colleges has made significant progress. The number of training and teaching bases continues to increase, and the level of teaching management is also constantly improving. According to Abedi (2018), higher education is the basis of political, social and economic growth. To improve the level of higher education is to improve the country's competitiveness. The biggest difference between higher vocational colleges and ordinary colleges and universities is to cultivate technical and practical talents serving the production line, and pay attention to the cultivation of practical operation ability and innovation ability (Peprah, 2018). The training of students' practical operation ability in higher vocational colleges depends on the quality of training teaching to a large extent. Establishing an efficient, feasible, scientific and standardized quality management system of training teaching in higher vocational colleges plays a vital role in improving the quality of talent training. From the perspective of higher education institutions, students are essential stakeholders of universities (Donlagic & Fazlic, 2015). Similarly, Tari and Dick (2016) pointed out that colleges and universities will continue to feel pressure due to students' expectations for the quality of teaching services. Several studies have developed measurement tools to reveal the drivers of

undergraduate student satisfaction (Douglas et al, 2015). In addition, measuring student satisfaction is the responsibility of the department and the key factor in understanding student progress and success. According to Adnot et al (2017), service is an intangible activity that represents the needs of customers. The process of providing services is a behavior beneficial to and satisfying customer expectations. Measuring students' satisfaction is crucial to the performance of institutions and the continuous improvement services they provide (Cheng et al., 2016). It can be concluded that students' satisfaction depends to a large extent on the services provided by the school and the perceived degree of students. It explains each student's different cultural backgrounds, dramatically affecting their satisfaction expectations. In addition, it points out that satisfaction is understanding the situation before experience. Therefore, this study focuses on evaluating the quality of school teaching services from an academic perspective and improving students' satisfaction with school services. One way to evaluate student satisfaction is to include their education experience into the overall satisfaction score through student surveys (Douglas et al., 2015).

From students' perspective, the teaching service quality of higher education has been tested and empirically tested in many studies. For example, Belsito (2016) conducted an empirical study on the applicability of the European Customer Satisfaction Index (ECSI). Abdullah (2006) developed the HEDPERF scale as a measuring tool for the quality of teaching services in the higher education sector. And foreign researcher Sultan & Wong (2010) proposed the PHed measurement standard as a performance-based comprehensive teaching service quality model applicable to higher education institutions. In their research, Chikazehe and Nyakunuwa (2022) developed and verified a teaching service quality tool based on Douglas et al (2006) and Sirait (2016). Its applicability in higher education institutions in India is called SQM-HEI and HiEduQual respectively. HEDQUAL scale, developed by Icli & Anil (2014), is a scale to measure the quality of teaching services in higher education, especially MBA courses. Chikazehe and Nyakunuwa (2022) introduced the higher education teaching service quality scale HESQUAL as a second-order factor model into higher education quality's functional and technical aspects.

On the other hand, the environment of higher education is changing under the influence of social demand and development and the transformation of the labor market. In today's highly competitive higher education market, students have a wide range of choices, and the factors that enable higher education institutions to attract and retain students are increasingly valued, leading higher education institutions to implement the service value concept to survive in the global higher education market. Canic and McCarthy (2000) believed that higher education institutions must play an essential role in evaluating the quality of teaching services to improve students' satisfaction, which measures students' views and expectations of the services provided by the school/college and the whole university. University education is the best platform for students to gain a lot of development ability, career development and release potential, which means providing high-quality education services. The awareness of providing

quality services in higher education has increased significantly worldwide. As the training object of higher vocational education, students should improve their knowledge, skills and development as the starting point and foothold of promoting teaching reform to realize the value of higher vocational education truly. Therefore, this study will add the satisfaction of college students and the quality of teaching service in Shandong Commercial Vocational and Technical College as essential factors to the SERVQUAL model, and study the relationship between the satisfaction of college students, the quality of service management and student loyalty in Shandong Commercial Vocational and Technical College, providing a new analytical perspective for the study of the impact of the satisfaction of college students and the quality of service management on their loyalty in Shandong Commercial Vocational and Technical College.

1.2 Problem of the Study

Although the current national level has paid attention to the importance of students' evaluation and guarantee of higher vocational education, there are still many drawbacks in the actual implementation. At present, the subjects of education quality evaluation and evaluation in China's higher vocational education primarily involve government officials, teachers, and school administrators, whose evaluation rights are controlled by the government and education implementers, and ignore the evaluation of the quality of education and teaching services that students participate in. According to the preparation of the 2016 Annual Report on the Quality of Higher Vocational Education in China released by Alam (2021), the perspective of preparation is still the traditional quality view based on schools, without highlighting the student-centered. The preparation of the report is centered on policies and funding, reform and effectiveness, services and contributions, student growth and development, etc., but student development is only an independent part of the report, And it is not close enough to other contents. Therefore, we need to pay attention to the subjectivity of students and solve the quality of education services, especially in higher vocational education.

1.3 Research Questions

Based on the former fact, this study aims to study three issues.

Question 1: Is there a relationship between the SERVQUAL model provided by Shandong Commercial Vocational and Technical College and students' behavioral intentions?

Question 2: What is the impact of educational environment on the loyalty of Chinese college students in Shandong Commercial Vocational and Technical College?

Question 3: What is the impact of comprehensive management level on the loyalty of Chinese college students in Shandong Commercial Vocational and Technical College?

1.4 Objectives of the Study

Higher vocational education, a knowledge and skill education characterized by

vocational skill training, has a positive significance in improving students' comprehensive quality and vocational skills. Ambussaidi and Yang (2019) Research on teaching quality of higher vocational education from the perspective of student satisfaction can promote teaching staff in higher vocational colleges to continuously improve teaching management mode. Subhani (2022) mentioned that students' satisfaction with the teaching environment is an important indicator to measure the quality of the teaching environment and also an essential factor to affect the development of higher vocational education and the improvement of students' satisfaction. Studying this from the level of teaching environment can realize the sustainable development of higher vocational education.

And students' satisfaction with teaching quality is an important indicator to measure the quality of teaching and also an essential factor in affecting the development of higher vocational education and the improvement of students' satisfaction. Studying this from teaching quality can realize the sustainable development of higher vocational education. Beer (2003) researched the teaching quality of higher vocational colleges from the perspective of student satisfaction, breaking the situation that the current higher vocational education has long been based on teaching managers as the main body of evaluation. Through the direct experience of education services, students can give feedback the teaching quality through the evaluation of teaching quality.

Specifically, the research objectives are:

(1) To explore the relationship between the SERVQUAL model and the behavioral intention of the college students in Shandong Vocational and Technical College of Commerce.

(2) To investigate the influence of the environment of Shandong Vocational and Technical College of Commerce on the satisfaction of Chinese college students.

(3) To testify the influence of the comprehensive management level of Shandong Vocational and Technical College of Commerce on the satisfaction of Chinese college students.

1.5 Significant of the Study

Based on the above background, combined with the research results of the academic community, this paper draws a practical conclusion. In the current work, the quality of university teaching services can no longer meet future development needs. Therefore, this paper will elaborate on the significance of this research from theoretical and practical aspects.

1.5.1 Theoretical significance

When it comes to theoretical significance, it is dual. First, according to the independent variable of the satisfaction of Chinese college students in Shandong Commercial Vocational and Technical College, it is important for service organizations such as educational institutions to understand students' views on service. Student satisfaction is related to human activities and aims to meet customers' needs through products and services. In the educational environment, the quality of qualifications is related to students' satisfaction. Ali and Raza (2017) showed that student satisfaction

examined four dimensions of education: the professional knowledge of lecturers, courses provided, environment and classroom facilities. Tsai et al. (2012) pointed out that the quality of teaching services will affect students' loyalty after obtaining a satisfactory experience. According to the definition of comprehensive quality management theory, this paper: teaching management activities should run through the process of teaching management, and mainly examines the four dimensions of student satisfaction: price, education environment, comprehensive management level and service management. Student satisfaction is related to four dimensions: price, education environment, comprehensive management level and service management. Students can consult these and are willing to provide services on time. Students will feel satisfied when they are regarded as significant users and their experience meets or exceeds expectations.

As mentioned earlier, this study aims to evaluate the delivery of teaching service quality related to the satisfaction of students in Shandong Commercial Vocational and Technical College to promote customer care and protect the institution's reputation. The quality of higher education can be measured by the proper use of modern teaching aids, state-of-the-art library facilities, research facilities and curriculum quality (Islam & Salma, 2016). It will primarily provide an opportunity for managers to continuously improve the quality of teaching services provided by Shandong Commercial Vocational and Technical College to students, support the core values within the university, and convey enthusiasm for excellence, integrity and service.

1.5.2 Practical significance

The internationalization of higher education is also a hot research field in the development of modern higher education in recent years (Milanowski, 2004). There is more and more research in this field at home and abroad. However, the branch of college student management has not formed a relatively complete system. The existing research on college student management is mainly aimed at European and American countries, while the analysis on student management in China, especially in Shandong Commercial Vocational and Technical College, is very few. This study will reference Shandong Commercial Vocational and Technical College, higher education institutions, Chinese universities, etc. As a member of Shandong Province, the author has a better understanding of this and has specific practical significance when conducting surveys and in-depth interviews (Sirait, 2016). Moreover, through the in-depth and extensive research on the management of college students in Shandong higher education, this paper draws on the user experience that can provide this analysis and can be adapted for other higher vocational schools in China, urges the fundamental improvement of college students' education management system, which has solid practical value for promoting the process of higher education in China's education management. Because of this, this paper makes a scientific and reasonable interpretation of this aspect. It carries out in-depth research on its outstanding characteristics in development to make a modest contribution to enrich and improve the management theory of college students in higher education.

1.6 Limitation of the Study

However, there are still weak points in the study of college students. The central performance is:

(1) The research method is relatively simple.

At present, college students' reading research focuses on theoretical discussion and lacks attention to specific problems. Even if it involves, it is more use of theories to understand phenomena. The method used in data analysis is simpler, so the credibility of the survey results is not high, and the role of solving practical problems is not prominent. Therefore, we can try to combine the actual situation and the questionnaire survey to analyze together.

(2) The research results are repetitive.

Due to the lack of systematic collation of their research, and the limitations of research methods, especially data analysis methods, most researchers have adopted similar methods, resulting in the duplication of research results, resulting in many problems in the provision of college students' services at the surface. Therefore, in future research, we can adopt a variety of research methods, such as empirical sampling, interview and questionnaire survey, and combine more methods to carry out research around the current situation, development characteristics, influencing factors and other aspects of contemporary students of Shandong Commercial Vocational and Technical College, to provide some suggestions for college student's school experience and experience.

Chapter 2 Literatures Review

2.1 Introduction

As the prominent position of cultivating skilled talents, the quality of talent training in higher vocational colleges depends on the quality of teaching to a certain extent. As the object of service in higher vocational colleges, students are the direct participants in teaching activities. Only by understanding the students' evaluation of teaching quality can higher vocational colleges better serve students. According to Belsito (2016), a comprehensive review of the development and many uses of these terms needs to explore several disciplines, and it is easy to fill a large volume. However, the following brief examination of the differences between these concepts may help better communicate with people involved in planning and evaluating educational change. From the practical perspective, quality and its related concepts are usually defined as output, result, process or input. Output usually refers to changes in student performance, completion rate, certification, skills and some attitudes and values. Therefore, to distinguish results from outputs, we need to conceptualize them as long-term consequences of education, such as overtime changes in employment, income, attitudes, values and behaviors. Irmayani et al (2018) is mainly based on input analysis, limited to factors manipulated by policies, including the characteristics of teachers, students, facilities, courses and financial and other resources needed to maintain or change educational enterprises. According to Noaman et al (2017), context influence can also be considered as input in a broader sense. The process is usually interpreted as the interactive form of teachers, students, managers, materials and technology in educational activities. Gershenson (2016) It can be seen that teaching quality has always been the focus of attention in developing China's higher vocational education. Chinese scholars have done a lot of academic research on teaching quality. There are many journal papers, as well as many master's and doctoral papers and related monographs. Through the analysis of the existing documents, it is found that the research of Chinese scholars on teaching quality is mainly reflected in the current teaching quality and the evaluation of teaching quality. Therefore, this chapter explains the contents and ideas of relevant literature by providing an overview of relevant concepts and defining the current background of this research. It also carries out literature retrieval through the Internet, making full use of its rich theoretical support. Conduct research through CNKI, Google Academic, researchgate and other resource websites.

2.2 Literature Reviews

The current research on the quality management of training teaching mainly focuses on the following aspects: constructing the quality management system of training teaching, constructing the quality evaluation system of training teaching, the

application of quality management theory in the management of training teaching and the establishment of the quality management model of training teaching. Twum et al (2022), by applying the "process management" method to the construction of the quality management system of training teaching, tried to further optimize the quality management organization, build an advanced information technology platform, improve the quality monitoring system, manage, monitor, feedback and improve the teaching process, and then comprehensively improve the quality of training teaching in higher vocational colleges. Ilias et al (2008) took the "process" as the research perspective and used the process method to systematically design the quality management system of training teaching in higher vocational colleges. Taking "process management" as the research idea, this paper establishes a model for the enterprise quality management system. By analyzing the basic steps of implementing quality management with "process method" applied by enterprises and comparing the similarities and differences between schools and enterprises, this paper puts forward a management model for improving the quality of training teaching in higher vocational colleges.

The study found that a considerable number of teachers are not satisfied with the learning state of students' classroom theoretical teaching, the professional skills of the teaching staff are not comprehensive enough, and the teaching management and teaching monitoring are relatively weak. Zeithaml and Bitner (2003) took the sum of social evaluation of students' quality and students' evaluation of teaching quality as the criteria for evaluating the teaching quality of higher vocational education, constructed the evaluation model of teaching quality of higher vocational education, and conducted an empirical investigation with the directors of teaching administration, student directors, enrollment directors, director of the practical training department, department directors and some students of five higher vocational schools as the main body. The survey results are analyzed in depth by means of multiple statistical methods, and the problems of basic teaching, vocational training, technical teaching and professional courses in higher vocational education are pointed out, and corresponding countermeasures are put forward. Both articles point out the problems of teaching quality in higher vocational colleges through the combination of quantitative and qualitative research conducted by questionnaire survey. The former is mainly conducted by teachers, while teaching managers and a few students conduct the latter. In addition, Poon et al (2016), according to the characteristics of education and teaching in higher vocational colleges, based on the analysis of the principles and methods of education and teaching evaluation in higher vocational colleges, studied the evaluation indicators of teaching quality in higher vocational colleges, and constructed the evaluation system of education and teaching quality applicable to higher vocational colleges from three aspects: teachers' teaching quality evaluation, students' learning quality evaluation, and school management quality evaluation. The quality of classroom teaching, practice teaching and graduates.

Larmuseau et al (2019) conducted a questionnaire survey of 95 sophomore students in the College of Electronic Engineering, Tianjin Normal University from three aspects: teacher factor, curriculum factor and student factor. After data statistical

analysis and scientific reasoning, the main factors of classroom teaching satisfaction and teacher, student and curriculum itself were obtained, and suggestions were made on the results of descriptive statistical analysis. Goldhaber, Choi, and Cramer (2007) study found that students' satisfaction with their own learning is the lowest: "interpersonal relationship" and "rules and regulations" factors have a more significant impact on students' school satisfaction, and "teacher teaching" and "rules and regulations" factors have a greater impact on students' professional satisfaction and students' satisfaction with their own learning and put forward relevant suggestions according to the research conclusions. Ehler et al (2016) took 604 undergraduate students in a university's third and fourth grades as the survey object. They found that the teaching and learning styles are the most critical factors that affect students' satisfaction with teaching quality. The curriculum setting factors, practice factors, teachers factors, management and service factors, and hardware facilities factors have different degrees of influence on the overall satisfaction of teaching quality. Mashenene (2019) built a higher vocational teaching quality evaluation system with learning quality as the core. It mainly covers two aspects: the evaluation subject and the evaluation index. The evaluation subject includes teachers (including teachers' peers and teaching supervisors), students and business units. The evaluation index includes professional ability, social ability and method ability. The three have not taken empirical investigation and research. Lacour and Tissington (2011) are all qualitative research based on the experience of scholars and the teaching quality problems of colleges and universities to build the teaching quality evaluation system. Practicality of training mode. Higher vocational education is to train high-skilled talents to meet the needs of social and economic development. It is an employment-oriented education with technology application ability as the main line. Mac (2003) also determines that the talent training mode of higher vocational education differs from that of ordinary higher education. The teaching process of higher vocational education emphasizes the combination of theory and production. Higher vocational students should not only master specific theoretical knowledge, but also have the practical operation ability of relevant professional posts, translate the learned technology into production practice, and solve the technology in actual work difficulties.

The sociality of higher vocational education is to put higher vocational education in the background of economic society so that the school and society have established a wide connection. Twum, et al (2022) think that higher vocational education not only serves the needs of students but also serves the social economy. Higher vocational education should adapt to social development. At present, the implementation of the Made in China 2025 strategy and the the Belt and Road strategy have provided new opportunities for the development of China's higher vocational education and also put forward new requirements for the talent training goal of China's higher vocational education. Shepard (2000) to meet these opportunities and challenges, higher vocational education should make new changes in talent training objectives, teaching content and methods, practical teaching and teaching staff.

From the perspective of teaching staff construction, teachers have different qualities and abilities. Higher vocational colleges should have a "double-qualified"

teacher team. Teachers in higher vocational colleges should have not only solid professional theoretical knowledge and teaching ability, but also require technical titles and relevant professional qualifications above the intermediate level. More importantly, they should have accumulated more than two years of practical work experience in the front line of enterprises, that is, practical skill level. In addition, some front-line employees or experts of enterprises are also employed as practical teaching instructors. For teachers in colleges and universities, it is important to have rich theoretical knowledge, teaching ability and scientific research ability. As for the practicality of the teaching process, higher vocational colleges pay attention to the cultivation of students' hands-on operation ability, take the working process as the guidance, and the proportion of practical teaching is large. Skrla and Scheurich (2001) point he teaching content emphasizes the application of theoretical knowledge and the cultivation of practical ability with the purpose of application and the principle of necessity and sufficiency and highlights the pertinence and practicality of professional course teaching. In the professional teaching practice link, implement "learning by doing". Nafukoh, Hairston and Brooks (2004) requires higher vocational colleges to attach importance to the construction of practice bases inside and outside the school, the cooperation with enterprises, the combination of production, teaching and research, and the cooperation between schools and enterprises. Silcock (2003) said that ordinary higher vocational colleges pay more attention to classroom teaching and cultivate academic talents with systematic theoretical knowledge.

Research on higher vocational training teaching quality management has initially formed a system. Based on different national conditions and the development of training teaching, foreign researchers have discussed and analyzed the current situation of the quality management of higher vocational training teaching from the perspective of the operation mode, evaluation and policy text analysis of training teaching. Pedro, Mendes and Lourenço. (2018) covers a wide range of aspects, including training, teaching evaluation, curriculum and teacher employment; implementing a good education is basically to improve the quality of education. One factor that promotes the success of education implementation and management is good and competent human resources in the field of education. Equality means that all students can get the same educational opportunities. Carrington and Selva (2010) believed that in terms of teacher policy, equality means that every student has access to efficient teachers. However, fairness is aware that students may need different resources to adapt to different needs. In particular, we should consider that if a student with disabilities needs additional resources and support to achieve a similar quality of education, and that education needs to give this student the same resources as all other students, that is, equality. However, many regions do not allocate funds fairly to ensure that high-poverty schools provide the same funds for each student as schools with more affluent students. Adnot, et al (2017) pointed out that the "loophole" of the comparability clause requires teachers' salaries to be calculated as full-time equivalent positions rather than measured by wage differences. When the school district allocates funds according to the staffing ratio rather than the teacher's salary, affluent schools usually receive more funds than low-income schools because more experienced and expensive teachers tend to gather in

wealthier schools.

Therefore, it is not enough to only understand the vision and mission and maintain good integrity. Tian and Huber (2019) believe that to succeed, the president must have the ability to perform his duties correctly. Fatani (2020) believed that as a leader, principals must be able to encourage teachers, employees and students to show strong enthusiasm and confidence in performing their respective duties. Kunter, Baumert and Köller (2007) also provide guidance for teachers, employees and students, encouraging them to be proactive, stay ahead, and motivate schools to achieve goals. After all, a plan that the headteacher must implement is the ability of the headmaster to implement entrepreneurial ability. The General Directorate of Educators of the General Directorate for the Quality Improvement of Educators and Educators (DGPMPTK) pointed out this point, and the General Directorate prepared materials to strengthen the capacity of principals and school supervisors. The vocational curriculum includes three subject groups: adaptability, standardization and productivity. Entrepreneurship education is gaining new sources of income. Through consulting relevant materials, we found that the purpose of the vocational school (SMK) in Article 26, paragraph 3, of the National Education Standard, No. 19 of 2005, is to prepare graduates for the following: (a) employment and cultivate professional attitude within the scope of business and management expertise; (b) Be able to choose a career, compete and develop within the scope of business and management; (c) Become a middle-level employee to meet the current and future business and industry needs in the field of business and management; (d) Become a productive, adaptable and creative citizen. Therefore, vocational students intend to enter employment opportunities through career paths and become middle-level workers and self-employed (entrepreneurship). Therefore, it can be said that vocational students currently need to have the learning and knowledge leading to the work and business world. It provides a lot of successful experiences for improving the quality of education in higher vocational colleges in China.

In addition, from the current research situation in China, we can see that China has made outstanding achievements in the quality research of higher vocational education. Scholars have studied and discussed the quality management of higher vocational training teaching from different perspectives (Beer, 2003). Many scholars believe that the main body of evaluation of training teaching quality should include students, teachers, schools and employers, etc; The teaching quality evaluation system should highlight the vocational characteristics of higher vocational education and establish a practical teaching evaluation system suitable for the characteristics of colleges and universities; The diversity of teaching quality management determines that it is necessary to conduct in-depth research on the management of practical teaching quality in higher vocational colleges from multiple perspectives (Chikazhe et al, 2022). The research content not only includes the research of management theory but also puts forward many suggestions for the construction of a quality management system. The existing research on the applicability of the talent training mode and quality management theory of training teaching in the quality management of higher vocational training teaching has many discussions, focusing on the establishment of training

teaching quality monitoring system and evaluation system. For example, Robinson, et al (2008), the research on the operation of the quality management system and the existing problems in training teaching quality management needs to be deepened. It was first applied to the manufacturing industry, was soon extended to other industries, and achieved great success. Higher vocational colleges have the characteristics of "career orientation" and "enterprise orientation", and are similar to enterprises in quality management (Grissom & Keiser, 2011). Therefore, the theory of total quality management applies to teaching quality management in higher vocational colleges. The relationship between higher vocational training teaching and the whole higher vocational teaching process is partial and overall. Since the effect of the quality of training teaching needs to be fully reflected over a long period after the completion of the teaching process, the quality of training teaching must be guaranteed by strictly monitoring each link before, during and after the training teaching (Jacobsen & Saultz, 2016). Based on the field survey of Shandong Commercial Vocational and Technical College, this study investigated and analyzed the factors affecting the quality of training teaching through the input, process and output of training teaching according to the total quality management theory and the "process method" management principle. And precisely understood the current situation of training teaching quality management, and aimed at the problems in the operation of the quality monitoring system and evaluation system, the PDCA management mode is used to put forward effective measures to improve and improve the quality of practical training teaching (Dervitsiotis, 2010).

Based on this, this paper intends to carry out a comprehensive and systematic discussion on the education management of Shandong Vocational and Technical College of Commerce from the perspective of the teaching service quality of its students, to supplement the relevant theories and promote its steady development.

2.3 Theory of Reviews

2.3.1 Total quality management theory

Since the 19th century, quality management has experienced three development stages in industrial production: quality inspection, statistical quality control, and total quality management. In the stage of total quality management, Chikazhe, Makanyeza, & Kakava (2022) think that establishing a quality management system is the main task of quality management has epoch-making significance. It was first applied in enterprise management and later widely used in various fields of social life by many countries. Foreign university administrators attach great importance to applying total quality management theory in the field of education and have formed a mature management system and achieved remarkable results in improving management efficiency and teaching quality.

"Comprehensive" means that everyone participates in the organization's continuous improvement process to achieve high-quality education through continuous change and improvement (Gruber et al, 2010). The traditional idea of total quality management means that the quality of products or services is based on the basic

standard of meeting the needs of customers. In recent years, the theory of total quality management has attracted the attention of many higher vocational education administrators in China, bringing a new management concept and method for teaching management and providing a new way to improve the education quality and management level. Yang (2009) studied practical teaching in higher vocational colleges based on the theory of total quality management and found that practical teaching in higher vocational colleges has problems such as lack of full participation, narrow management orientation and shallow management process. Poksinska, Dahlgaard & Antoni (2002), based on cause analysis, put forward relevant strategies in the planning, implementation, assessment, and processing stages using the PDCA cycle mode to improve teaching quality better.

The total quality management theory used in this research can be understood as: starting from the actual situation of higher vocational colleges, TQM has a strong correlation with internal performance and external factors (Hunt, 2007). We should raise the quality problem to the strategic level of the development of the school, fully consider the similarities and differences between enterprises and higher vocational colleges, take the improvement of teaching quality as the central task, take the total quality management theory as the theoretical basis, take the PDCA theoretical model as the method, and create a good image for the college, Constantly meet the needs of external and internal customers. Curkovic and Sroufe (2007) believed that total quality management is the inevitable trend of higher vocational education and the development of market talent cultivation. It is an effective way to improve teaching quality through the whole process and all-around quality management. It is an inevitable choice to establish the concept of total quality management, introduce ISO9000 family standards and strengthen the construction of management teams to enhance the competitiveness of higher vocational colleges. The Quality Management System Standard (ISO 9001) was published in 1987 and revised in 1994, 2000 and 2008. This standard describes basic elements that can design and implement qms. In the first revision, particular emphasis was placed on personnel, and special attention was paid to the process, which was similar to total quality management (TQM), although it was not enough (Jennings & DiPrete, 2010). Although ISO 9001 has improved the internal indicators of enterprise performance and improved operational performance (Dervitsiotis, 2010), although this has not been confirmed in all studies (Dahlgaard & Dahlgaard-Park, 2006).

In general, the focus of the first two editions of this standard is to enable the company to produce the required output according to the specifications stated in the quality manual. Later, the revised version of ISO 9001 in 2000 will focus on customers and continue. Matias and Coelho (2002) explored the quality management approach in higher vocational education from the enterprise total quality management theory perspective. The traditional results-based quality assessment cannot meet the needs of modern vocational education, nor can it measure the quality of graduates. Higher vocational education's future direction is to innovate management methods to adapt to a society with diverse needs.

2.3.2 Service quality theory

For the SERVQUAL model of teaching service quality, the tested SERVQUAL model developed by Parasuraman (1988) assesses students' satisfaction. The model has five business school dimensions: tangibility, reliability, responsiveness, empathy and assurance. Tangibility is the appearance of physical facilities, equipment, personnel and related books. Reliability refers to how to deal with students' problems, whether the service is timely and error-free, and whether the promised service is fulfilled. Responsiveness means that staff are ready or willing to respond to students' service needs. Over the years, a number of studies have been carried out to evaluate the satisfaction of college students and the quality of teaching services (Pedro, Mendes, & Louren, 2019). The guarantee includes the ability, knowledge and courtesy of employees who inspire trust and confidence. Empathy is the concern and concern for individual students based on specific needs.

Weerasinghe and Fernando (2018) believe that satisfaction is the attitude of the whole customer, which makes the service provider obtain the expected teaching service quality and produce a higher positive emotional response. Vocational education also provides entrepreneurship education that is consistent with existing capabilities. Entrepreneurship education is generally an educational process. It applies principles and methods to the formation of students' life skills through comprehensive courses developed in schools and higher education. Interest is a trend that is still interested in a particular field and willing to participate in it (Widiyatnoto, 2013). On the other hand, many studies have shown that teacher quality is the key to student performance. The biggest question about the characteristics of teachers is what kind of teacher attributes can improve the quality of students. Rivkin, Hanushek and Kain (2005) believed that students' achievements mainly depend on their education in many countries. However, these figures need to explain all the characteristics of teachers and which characteristics impact students' performance most. This is not to say that all teacher characteristics will lead to other student performance. Kane, Rockoff and Staiger (2008) showed that some teachers can help students improve their performance; Other studies have shown that some teachers may lead to a decline in student performance. Therefore, we should be cautious when measuring the impact of teacher characteristics on school performance.

All these studies have the same findings: teacher characteristics significantly affect students' performance. Teacher characteristics, such as educational background, experience, certificate status, leadership experience, perseverance, teacher evaluation scores, and curriculum preparation, are all variables related to student performance that have attracted scholars' attention. Firdaus (2019) examined the distribution and quality of teachers in detail. Regional and regional economic or social factors largely determine the quality of teachers. Especially in the past, people believed that if students performed well, school performance would be high, and vice versa. Hanaysha, Dileep and Hilman (2012) found an observable and value-added dimension of the unfair distribution of teachers' quality in Washington State. Jacobsen and Saultz (2016) also found that although most of the inequalities exist between regions and schools, there are also many inequalities, even in different school classrooms - especially when quality is defined as the value added by teachers to students' performance. These findings help to understand how the distribution of teachers affects students' academic performance. Regional and

regional economic or social factors primarily determine the quality of teachers.

Similarly, Afghar et al. (2019) pointed out that if the perceived quality of teaching services provided the organization with expected services, customers would recommend services to others based on the satisfaction they experienced. SERVQUAL model evaluates the quality of teaching services. Students' perceptions and expectations of service exceed expectations, and it is possible to recommend potential students to the university.

2.3.3 Constructivism theory

Piaget, a famous Swiss psychologist, first proposed constructivism. At that time, it was mainly used to study human learning and cognitive laws of the world around. With the continuous development and evolution of constructivism and the continuous deepening of psychologists' research on human learning processes and cognitive laws, in the 1980s, as a branch of cognitive learning theory, constructivism learning theory began to rise in the western educational field. The three main characteristics of constructivism theory can be summarized as: situational, interactive and active. Constructivism emphasizes the subjective cognition of learners and attaches importance to establishing situations conducive to learners' active exploration of knowledge. The amount of knowledge learners acquire depends on their ability to construct the meaning of relevant knowledge based on their own experience rather than memorizing and reciting the contents taught by teachers. Soria-García and Martínez-Lorente (2020) believed that although behaviorism may still be concern in some behavior management publications and strategies, more and more people involved in education adopt the view that learners shape their thoughts through their actions in a specific social and cultural environment; In positioning, learning is regarded as construction. Students must understand the tasks they are facing and believe they have the ability and intellectual tools to undertake them. The constructivist learning orientation attempts to understand how students create their knowledge structure and what this mean for understanding's impact on the thinking process. The mobility of constructivist learning requires teachers to adopt the view that each learner will construct knowledge differently. These differences originate from how individuals acquire, choose, interpret and organize information (Adams, 2006). Constructivism advocates "student-centered" in the whole teaching process. Students are the active constructors of knowledge meaning. They should stimulate students' learning motivation, encourage innovative thinking, and strengthen innovative ability. In the construction activities, the constructivist teaching evaluation concept emphasizes the "evaluation integration principle". It pays more attention to cultivating learners' self-discovery, self-exploration and self-design ability in the learning process. For a period of time, apart from the education policies required for successful examinations, at best, they have been shelved and at worst neglected; Examinations and other forms of objective measurement of education quality occupy a leading position (Easen & Bolden, 2005). Successive governments have used increasing resources and centralization to improve standards by manipulating school curricula and teacher behavior (Silcock, 2003). In this case, the learning of key stage 2 (through its simple belief related to performance) is measured by controlling the environment, tasks

and time while students undertake a series of pre-determined and moderate tasks, meeting clear and agreed standards. Then, evaluate students' performance and the degree and evaluation criteria of students. Although rhetoric refers to the evaluation of students' learning, practice is an appropriate form of behavior that is considered to be related to learning (Easen & Bolden, 2005); Psychological activities and processes are indirectly observed through the prism of action and reaction, which in turn is believed to provide reliable information about this type. The teaching models influenced by constructivism theory include the cognitive teaching model, example teaching model, random access teaching model, etc. These teaching models inject fresh blood into the application and development of constructivism in teaching.

2.4 Research Relevant

Different actors at all levels of the education system have different responsibilities (Huber & Helm, 2020). Research can and should contribute to the current debate on school education by providing relevant information from its knowledge base and generating new knowledge where necessary and possible. Some information is urgently needed. There are different problems at the policy and practice levels of digital learning environment, crisis management and health procedures. The various needs are related to the existing knowledge from different backgrounds or situations and applied to different backgrounds or situations (Burchinal, 2018). However, the existing knowledge certainly needs to be translated into the current background and actual situation because the background and situational characteristics vary from country to region, and school to class. Pennett et al (2019) found through the survey that the implementation of total quality management can effectively promote the teaching and learning efficiency of higher education. Based on the independent variables and dependent variables involved in this study, as well as the relevant literature review and theory, it is clear that the quality of teaching service based on service value has a significant positive impact on the satisfaction of students in Shandong Commercial Vocational and Technical College by summarizing the previous research of relevant scholars. This shows that the better the quality of education and teaching service and the effectiveness of education management, the higher the students' satisfaction with the quality of teaching service of Shandong Commercial Vocational and Technical College, and the higher their loyalty.

Belsito (2016) think that teaching service quality is divided into tangibility, reliability, responsiveness, empathy and assurance; 1) Tangibility is the appearance of physical facilities, equipment, personnel and relevant books; 2) Reliability refers to how to deal with students' problems, whether the service is timely and error-free, and whether the promised service is fulfilled; 3) Responsiveness means that the staff is ready or willing to respond to the service needs of students. 4) Ensure the ability, knowledge and courtesy of employees who inspire trust and confidence; 5) Empathy is the concern and concern for individual students based on specific needs. The satisfaction is 1) the professional knowledge of the lecturer; 2) Courses offered; 3) the Environment and classroom facilities; 4) The quality of higher education can be measured by the proper use of modern teaching aids, the most advanced library facilities,

research facilities and curriculum quality. However, there is no significant difference in the impact of gender, school time and school motivation on the quality of school education and teaching services. The dimension of teaching service quality can be used as one of the effective means to improve the quality of teaching service, and course, it can also improve the quality of education (Hanasya, 2012). Therefore, it can be said that students' opinions influence the success of school service shaping.

According to relevant data statistics, students' satisfaction with the teaching service quality of Shandong Commercial Vocational and Technical College is from high to low, which is affected by price, education environment and comprehensive management level in turn. Therefore, Shandong Commercial Vocational and Technical College should steadily improve the educational environment and comprehensive management level to improve the quality and level of school service of Shandong Commercial Vocational and Technical College. Ali, et al. (2022) believed that we should attach importance to teaching process management and implement a comprehensive quality assurance system. Analyze the scientific research problems and plans by interpreting existing literature. Then, it discusses the theoretical and practical significance that may exist in practical activities. After all, under ideal circumstances, the quality of teaching service is generally considered to be an essential prerequisite for establishing and maintaining good relations with valuable customers (Ilias, Hasan, Rahman & Yasoa, 2008), and then determine the scope of this study and the structure of the paper.

Secondly, through the literature analysis, Classroom management refers to the ability of teachers to lead learners in a way that maximizes the teaching time devoted to meaningful learning. Wang (2019) found in his research that there are two significant characteristics in the implementation of TQM: first, the implementation of TQM in the training process can enable students to generate learning motivation and cultivate good learning habits. To ensure a high proportion of learning time, teachers can use teaching strategies to prevent students' improper behaviors caused by boredom, overload, disorientation, difficulty understanding, negative emotions, etc. Meta-analysis has repeatedly identified classroom management as one of the most powerful teaching predictors of students' academic achievements (Fatani, 2020). In addition, Huber and Helm (2020) emphasized the importance of technical equipment for high-quality online learning, acceptance, and students' self-concept of digital media. Therefore, this paper takes the service value as the research framework, builds the satisfaction and loyalty impact mechanism model according to the research paradigm of "cognition value behavior" and the research paradigm of internal marketing and brand relationship management, and puts forward the research hypothesis and operational definition based on this model. Finally, this paper summarizes the research conclusions and clarifies the research results' theoretical contributions and management implications. The overall framework layout paves the way for the following discussion.

2.5 Conceptual Framework

This chapter details the background of subject selection, focusing on independent variable: 1) SERVQUAL model; 2) Educational environment; 3) To a certain extent,

the comprehensive management level affects the variable: the behavioral intention of vocational college students. Through quantitative research, it is found that teaching service quality, educational environment, and comprehensive management level based on service value have a significant positive impact on college students' satisfaction and loyalty.

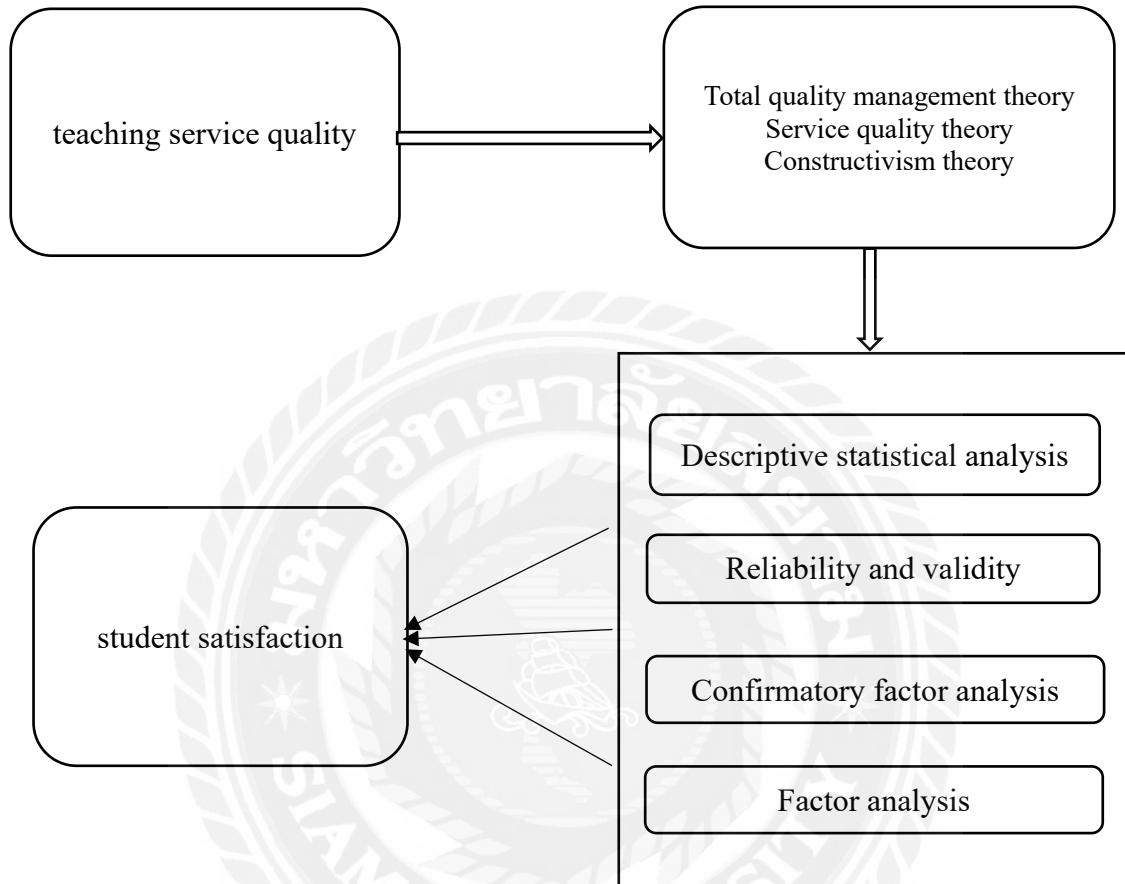


FIGURE 2.1 Technical circuit diagram

2.6 Terms and Definition Used in This Study

There are many definitions to be clarified in this study.

Higher Education: Higher education has become a global business, and universities must constantly explore the options of exporting higher education services (Mohamad et al, 2012).

In addition, the education sector does not involve genuine products, the services provided will represent the competitive division of advantages in creating unique experiences among institutions (Khodayari & Khodayari, 2011). Although there is competition in research and innovation, universities are also expected to provide high-quality services. Therefore, evaluating the quality of higher education teaching services can provide meaningful contributions and inputs to help the management and staff continue to improve the quality of education (Al-Alak & Alnaser, 2012).

Quality management of practical teaching in higher vocational colleges: The quality management of training teaching in higher vocational colleges is based on the concept of attaching importance to the quality of training teaching and the sense of responsibility for the quality, aiming at improving the quality of teaching, reasonably and effectively organizing and utilizing teaching resources, and using scientific means to plan, organize, implement, supervise, control and improve the teaching environment (Brownell et al., 2020). It is not only conducive to the cultivation of students' innovative spirit but also conducive to the long-term production of high-quality talents, continuous improvement and improvement of the quality of practical training and teaching so as to ensure that students can effectively and high-quality master the skills and qualities necessary for the occupation.

Higher vocational education: As a part of higher education, higher vocational education combines "higher" and "vocational education". Higher vocational education has the same characteristics as ordinary higher education, that is, higher education, but also its own particularity (Douglas et al, 2015). The vocational nature of training objectives. The difference between higher vocational education and general education lies in the word "occupation" (Belsito, 2016). The vocational nature of higher vocational education is reflected in its training objectives. Higher vocational education is the product of social, economic and development and is adapted to the needs of the social market. It is to cultivate application-oriented talents who can master the professional theoretical knowledge, professional skills and professional quality required for a particular occupation. Higher vocational education focuses on cultivating students' vocational ability and technology so that higher vocational students can quickly get started in practical positions as soon as they graduate. Therefore, to sum up, the training objectives of higher vocational education are highly professional, practical and practical (Grissom, 2012). Higher vocational education is an education aimed at cultivating high-quality and high-skilled talents who are based on mastering theoretical knowledge, are centered on cultivating practical ability, have good professional ethics and professionalism, and can be competent for a particular job.

Higher vocational colleges: Higher vocational colleges are the places where higher vocational education is implemented, which is the abbreviation of higher vocational schools (Carrington, & Selva, 2010). Higher vocational colleges are responsible for training high-skilled and high-quality talents for the socialist modernization construction of China. Higher vocational schools and colleges refer to higher vocational colleges at all levels (Floden et al., 2017). At present, China's higher vocational colleges mainly include short-term vocational colleges, vocational and technical colleges, colleges, independent adult colleges, senior technical schools, secondary colleges in ordinary colleges and private colleges with higher academic qualifications. Among them, higher vocational and technical colleges are the first-level colleges of higher education institutions in China, and also local colleges (Alam, 2021). They have established many colleges in China, which are the most representative and dominate the main body of higher vocational education in China. This paper deals with the Higher Vocational and Technical College, namely Shandong Commercial Vocational and Technical College.

Student satisfaction: Universities with reasonable student satisfaction will be recommended by students, and they may also update their knowledge by registering for higher degree courses (Afthanorhan et al., 2019).Therefore, school administrators should pay attention to the degree of influence of various factors on student satisfaction, such as: (1) measuring the impact of five dimensions of teaching service quality on student satisfaction; (2) Measure the impact of the education environment dimension on student satisfaction;(3) Measure the impact of the college's comprehensive management level on student satisfaction.



Chapter 3 Research Methodology

3.1 Introduction

This research is mainly carried out through quantitative research. This chapter describes the research framework and research design in detail. In order to understand and get familiar with the existing views and quantitative research method in this research field, it summarizes the issues to be studied in order to obtain relevant information. In addition, each definition can be associated with one or more quantitative measurements. In turn, these measures can be combined with multiple classifications of norms, standards and "appreciation" standards in a trinity way. Therefore, through the library of Siam University and the VPN, the author logs into the Chinese Academic Journals Full-text Database (CNKI), Wanfang Database and other collection resources in China to search for a large number of journals, master's and doctoral papers, conference papers and other materials related to this subject. Wong, et al. (2017) through the electronic resources and books of the library, we can consult the domestic and foreign literature on the teaching quality and student satisfaction of higher vocational education, and on the basis of reading, we can screen out the literature related to this study and make a relevant literature review of this paper, and summarize the aspects that may not be involved in the current research. Then according to the research object of this paper and the operational definition of various variables proposed in this paper, Select the appropriate measurement scale, design the questionnaire questions in advance according to the research topic to pave the way for this study. After repeatedly considering, revising and improving the measurement scale, form a formal questionnaire, and explain the distribution object and implementation process of the questionnaire. For the relevant data collected in the questionnaire, the SPASS 26.0 software is used for statistical analysis, and descriptive statistical analysis, reliability and validity analysis, confirmatory factor analysis and factor analysis are used to explain the statistical results.

Quantitative research methods

The quantitative research method is adopted on the basis of fully combing and analyzing the existing research. For the relevant data collected from the questionnaire, the SPASS 26.0 software was used for statistical analysis, and descriptive statistics, independent sample T test and analysis of variance were used to explain the statistical results (Hunt, 2007). Finally, statistical logic tools such as SPSS are used to analyze and test the statistical data. Through screening all the collected questionnaires, this paper further collates the effective questionnaires, and uses relevant software to analyze the data. Through reliability and validity analysis, correlation analysis, and hypothesis testing of the sample data, this paper further verifies whether the assumptions proposed in this paper are tenable, and finally obtains the research results.

Literature research methods

Through the analysis of the existing literature, it is found that the research of Chinese scholars on teaching quality is mainly reflected in the current situation of teaching quality and the evaluation of teaching quality (Irmayani, Wardiah, & Kristiawan, 2018). Therefore, this chapter explains the contents and ideas of relevant documents by summarizing relevant concepts and defining the current background of this study, and carries out document retrieval through the Internet, making full use of its rich theoretical support. Conduct research through CNKI, Google Academic, researchgate and other resource websites.

Statistical analysis method

Through the electronic resources and books of the library, we can consult the domestic and foreign literature on the teaching quality of higher vocational education and student satisfaction, and on the basis of reading, we can screen out the relevant literature of this study, summarize the literature of this paper, summarize the aspects that may not be involved in the current research, and then the author designs a questionnaire in advance according to the research topic, paving the way for this study. In addition, according to Poksinska, Dahlgaard and Eklund (2003), data can be collected and forms can be developed, called protocols, for recording data as research procedures. In this study, we can collect data, learn from others in the study, and develop it in a form called protocol to record data during the study.

3.2 Research Design

The report of the 19th National Congress of the Communist Party of China pointed out that priority should be given to the development of education, deepening teaching reform, speeding up the modernization of education, and running education to the people's satisfaction. Higher vocational education is shouldering the important task of cultivating skilled talents and building a powerful country of human resources as a vital guarantee to promote social and economic development. Running a satisfactory higher vocational education is not only to meet the needs of the new journey of socialist modernization for high-quality and skilled human support but also to meet the needs of the people for high-quality education in the new era (Kolbe & King, 2012). This paper investigates the perceived service quality of Chinese college students in Shandong Commercial Vocational and Technical College, the relationship between their satisfaction as the decisive factor of student loyalty, and the university service value as the intermediary role. To survive, universities must sell themselves to attract more students. Therefore, higher education institutions must carefully study the factors that attract and retain students. Institutions that want to survive in a competitive environment must seek flexible and practical solutions to attract learners and strengthen long-term relationships with them (Khalifa et al., 2021). Education itself is a complex social activity. The development of higher vocational education cannot be separated from society. Regarding the service process and nature of higher vocational education, different groups have different education needs. The people running a satisfactory higher vocational education include employers, students' parents, society and students. Loyal student associations are more inclined to support universities with high

satisfaction, and introduce new students to the university through active free word-of-mouth marketing, which can bring new students even after graduation (Luo & Photchanachan, 2022). So student loyalty has recently become a crucial topic in higher education institutions. If we can better understand the driving factors of student loyalty, we can provide useful information for school administrators to develop effective management plans to improve student loyalty. In addition, student loyalty is positively correlated with student satisfaction and contributes to the success of educational institutions (Miao, 2020). The original research is considered to be the first such research involving multiple independent variables among Chinese college students in Shandong Vocational and Technical College of Commerce. In addition, the fact that the questionnaire was distributed in Shandong and had certain reliability can be regarded as an important value of this work. Therefore, this study proposes a conceptual framework for the service quality of higher education by measuring the satisfaction gap between the expectation and perception of service quality and using the collected data to improve the service quality of higher education.

The dependent variable selected in this paper: student satisfaction

Kavitha and Gopinath (2022) studied the relationship between four key factors affecting student satisfaction: perceived teaching service quality, satisfaction, trust and commitment. The results show no direct correlation between teaching service quality and student loyalty and between student satisfaction and student loyalty, but indirectly through trust and commitment. Ganice et al (2018) studied the impact of the teaching service quality dimension on satisfaction through an example from a private university. The results showed no significant correlation between quality dimension and satisfaction. Oketcho, et al (2020) also confirmed the same findings. However, there are also reports that this indirectly impacts satisfaction. Empathy and reliability, directly and indirectly affect satisfaction (Wilkinson & Dale, 2002).

The independent variable selected in this paper: teaching service quality

The reason for choosing this independent variable is that the quality of teaching service is crucial to determine the current situation of teaching quality evaluation in higher education institutions. Therefore, to have a competitive advantage, Shandong Commercial Vocational and Technical College needs to establish a stronger relationship with students by providing the value of services (education environment and comprehensive management level) to receive more students. First, for higher education institutions, students are important stakeholders of universities (Sultan & Wong, 2010). Similarly, Rockoff (2004) pointed out that due to students' expectations of the quality of teaching services, the current situation of quality evaluation in colleges and universities will feel pressure, so it is necessary to pay attention to and improve the quality of their teaching services. Other studies have developed measurement tools to reveal the drivers of undergraduate student satisfaction (Subhani, 2022). In addition, measuring student satisfaction is the responsibility of the school management department and the key factor in understanding the progress and success of students.

3.3 Hypothesis

Running people's satisfactory higher vocational education can promote the

development of individuals and society. On the one hand, it includes the individual's desire for knowledge and skills, improving their knowledge and skills through the combination of work and learning in higher vocational education, and improving their own quality, cultivating students' professional quality and craftsman spirit in higher vocational education. On the other hand, education promotes social progress, and running people's satisfactory education can cultivate excellent talents and promote social development and scientific and technological progress. Rockoff (2004) believed that as an employer, the so-called satisfactory education is that students enter the enterprise after receiving the education. Students use the knowledge and skills learned in school to create value for the enterprise. The enterprise judges the quality of education by whether graduates are qualified for the job. Therefore, this study assumes this point.

H1: The SERVQUAL model of Shandong Commercial Vocational and Technical College has a significant positive correlation with the students' behavioral intention of Shandong Commercial Vocational and Technical College.

H1a: Investigate the impact of tangible assets on the loyalty of Chinese college students at Shandong Commercial Vocational and Technical College.

H1b: investigate the impact of responsiveness on the loyalty of Chinese college students at Shandong Vocational and Technical College of Commerce.

H1c: To investigate empathy's impact on Chinese college students' loyalty at Shandong Vocational and Technical College of Commerce.

H1d: Investigate the impact of assurance on the loyalty of Chinese college students in Shandong Commercial Vocational and Technical College.

H1e: Investigate the reliability impact on Chinese college students' loyalty in Shandong Commercial Vocational and Technical College.

In our current knowledge economy, knowledge and learning have become the primary sources of wealth creation due to globalization and the growing and rapid development of information and communication technology. Education is an important institution in the transition to a knowledge-based economy. The higher education institutions' market has led to more attention to their students as customers. Aaronson, Barrow and Sander (2007) mentioned that higher education had become a global business, and universities must constantly explore the options of exporting higher education services. In addition, Sirait (2016) believes that the education sector does not involve real products; The services provided will represent the competitive division of advantages in creating unique experiences among institutions. Although there is competition in research and innovation, universities are also expected to provide high-quality services. Therefore, the evaluation of teaching service quality of higher education can provide meaningful contributions and inputs and help the management and staff continue to improve the quality of education.

Therefore, this study assumes that:

H2: Shandong Commercial Vocational and Technical College's educational environment positively correlates with the satisfaction of Chinese college students in Shandong Commercial Vocational and Technical College.

H3: The comprehensive management level of Shandong Commercial Vocational and Technical College positively correlates with the satisfaction of Chinese college students in Shandong Commercial Vocational and Technical College.

3.4 Population and Sampling

The scale on which this questionnaire is based is that the existing mature scale has undergone multiple tests, and the error is relatively small. In this study, referring to the scale proposed by relevant scholars (Durvasula et al., 2001), the evaluation was carried out through the Likert five-point scoring method, and the respondents were required to choose the option that met their own conditions from 1 point (very disagree) to 5 points (very agree). The sample size of this study is calculated according to the population size in Yamane (1973) formula.

$$n = \frac{N}{1+N(e)^2} \quad (1)$$

3.5 Sample Size and Data Collection

The questionnaire construction of this paper includes two parts: personal basic information and measurement scale (Carrington & Selva, 2010). The basic personal information in the first part includes six basic questions, such as gender, education level, unit nature, family size, etc. The second part of the measurement scale is divided into two scales. Due to the epidemic situation, this questionnaire is mainly distributed online, supplemented by field investigation.

The questionnaire design meets the principles: First, the measurement system and Likert scale proposed in the previous paper designed the questionnaire. The survey will be carried out through stratified sampling and simple random sampling. A comprehensive descriptive and systematic analysis of the data was conducted, and the basic situation of the sample was fully understood and mastered. The questionnaire content is divided into three sections: personal information and measurement of influencing factors (Khodayari & Khodayari, 2011). Second, the influencing factors are subdivided into indicators that can be measured quantitatively. Finally, the questionnaire was tested in a small sample and passed the reliability and validity tests to finally determine the questionnaire questionnaire.

A total of 150 questionnaires were distributed and 136 were retrieved. After screening, 110 relatively effective questionnaires were obtained after removing incomplete and extreme questionnaires. The questionnaire recovery rate was 90.6%, and the effective recovery rate was 81%.

In order to obtain a detailed understanding of the distribution of respondents in age, length of service, marital status, and educational level, a sample descriptive analysis of recovered validated questionnaires, as shown in Table 3.1.

Table 3.1 Descriptive analysis of the samples

The number of valid questionnaires for category items accounted for%

| | | | |
|------------------------------------|---|----|--------|
| sex | man | 92 | 83.64% |
| | woman | 18 | 16.36% |
| age | 18~28 Years old | 13 | 11.82% |
| | 28~38 Years old | 33 | 30% |
| | 38~48 Years old | 48 | 43.64% |
| | Over 48 years old | 16 | 14.55% |
| Education level | High school and below | 34 | 30.91% |
| | junior college education | 44 | 40% |
| | undergraduate college | 23 | 20.91% |
| | Graduate student or above | 9 | 8.18% |
| Unit nature | Shandong Commercial Vocational and Technical College unit | 52 | 47.27% |
| | development organization | 36 | 32.73% |
| | design unit | 16 | 14.55% |
| | Other units | 6 | 5.45% |
| | | | |
| Household size (population number) | 1 | 17 | 15.45% |
| | 2 | 53 | 48.18% |
| | 3 | 26 | 23.64% |
| | ≥4 | 14 | 12.73% |

In terms of gender, 83.64% of the respondents are male, and 92; 16.36% of the female and 18. Since the respondents are male and fewer female, the ratio of men to women is consistent with the actual situation and the data is reasonable.

In terms of age, the number of people in the survey was 38~48, and the number of students was 48, or 43.64%; followed by 28-38 years old, accounting for 30%; over 48 years old, 16 people, or 14.55%; and 18 to 28 years old, accounting for 11.82%.

In terms of educational level, 30.91% of the respondents have high school degree and below, 34,40% have junior college degree, 44; bachelor's degree or above, 29.09% combined with graduate degree and above, and 31 are allocated. This is because the respondents of Shandong Commercial Vocational and Technical College mainly rely on labor to obtain benefits, so the education is low, and most of the bachelor's degree or above choose higher vocational education industry, which is consistent with the reality.

From the perspective of unit nature, most of the respondents came from 47.27%; the respondents came from Shandong Polytechnic and other units accounted for 32.73% and 5.45% respectively, and the number of respondents was 36 and 6 persons respectively; respectively, the design units accounted for 14.55%, with a total of 16 persons.

From the perspective of the family size of the respondents, most of the respondents have two maximum of 48.18% and 53, three, 23.64% of the population is 12.73%, the population is 1,15.45%; most of the respondents have families and have children.

3.6 Data Analysis

After determining the sample data, data analysis and research were completed through SPSS software, using the following analytical methods, which are explained and explained here.

(1) Descriptive statistical analysis

Descriptive statistics are commonly used to describe the statistics of personal information about subjects and the overall distribution of the questionnaire, mainly covering the distribution, distribution scale, recovery success rate, and final pass rate of the questionnaire. This analysis method shows the overall situation of the sample and the recovery of the questionnaire.

(2) Reliability and validity analysis

In order to meet the research purpose, the reliability and validity of the questionnaire must be tested. After completing the questionnaire design, a small-scale test must be conducted, and the survey can only be conducted after passing the test. Therefore, the questionnaire designed for this study is based on the existing mature scale. Therefore, for the reliability analysis of each project, the measurement tool SPSS26.0 is used to detect the reliability of each α , which is currently the most common and stable reliability measurement method (Iwata et al, 2013). Then analyze the corresponding relationship between the item and the factor. If the corresponding relationship is basically consistent with the psychological expectations of the study, it indicates that the validity is good. If the validity is poor, or the corresponding relationship between the factor and the item is severely inconsistent with expectations, or the similarity value corresponding to an analysis item is lower than 0.4, the item can be considered for deletion.

(3) Confirmatory factor analysis

The questionnaire designed for this study is based on the existing maturity scale. Therefore, after the reliability analysis of each item, all the dominant variables under the research dimension are used as new dominant variables in the single factor model for confirmatory factor analysis (Yıldırım & Güler, 2022). This study mainly analyzes the relationship between the indicators of each factor and the sample size based on prior knowledge of connectivity.

(4) Factor analysis

Factor analysis refers to the analysis of multiple variables. For factor analysis, it refers to the sum of the load squares of each variable using other variables as prediction factors, mainly testing the hypothesis of the relationship between variables (Mathieu et al., 2020).

3.7 Reliability analysis of the scale

The specific reliability analysis is shown in Table 3.2 below.

Table 3.2 Reliability analysis

| Dimension | Number of terms | Cronbach's α |
|--------------------------------|-----------------|---------------------|
| Teaching service quality | 7 | 0.866 |
| Educational environment | 7 | 0.858 |
| Comprehensive management level | 4 | 0.774 |

With the help of SPSS26.0 and AMOS 23.0 software, as shown in Table 3.2, the Cronbach's α coefficient of all variables is greater than 0.7, which verifies the credibility of the questionnaire results and indicates that the scale in the questionnaire designed by the institute has good internal consistency reliability.

Validity Analysis Is an important part of the empirical analysis. Usually, researchers do not have enough time or resources to develop new measurement tools. For questionnaires, they are usually measured using content validity and construct validity. Among them, the content validity refers to the suitability and logical consistency of the item and the measured variables (Jiao et al, 2021), the questionnaire used in this study is based on the review of the literature shows the relationship between variables, and further modify and improve the wording and expression of the survey, so the scale can be considered to have content validity that meets the requirements. Generally, the feasibility test of exploratory factor analysis should meet two conditions: 1. $KMO > 0.7$; 2. Bartlett's spherical test is significant (Sig. < 0.05), and the results are shown below.

Table 3.3 KMO and Bartlett's Test

| | | |
|--|--------------------|-----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | 0.812 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 10036.832 |
| | df | 2533 |
| | Sig. | 0.000 |

As can be seen from the above table, KMO is 0.812, greater than 0.7, meeting the premise requirements of factor analysis, and the data pass the Bartlett sphericity test ($p < 0.05$), indicating that the study data meets the requirements.

Chapter 4 Finding and Result of the Study

4.1 Finding

After the development of this chapter, the questionnaire includes two parts, mainly for the treatment of relevant variables, and the other part is for the investigation of the basic information of the research objects. The questionnaire survey lasted for 1.5 months, mainly in the school QQ group and WeChat group to conduct an online survey to ensure the validity of the filling of the survey objects. The questionnaire itself should follow the basic theory of the questionnaire design. This study refers to the Likert scale, based on which the questionnaire was designed (Alam, 2021). The network questionnaire is mainly transmitted through the Questionnaire Star software, wechat and other platforms. This chapter, through the questionnaire survey, determines whether the critical factors discussed by most people, and feedback to the initial hypothesis theory, for the following proof, and analyze the content including confirmatory factor analysis, hypothesis test, concluded that the relationship between variables and variables, and verify the hypothesis proposed in the second chapter.

4.2 Description of the Study

The Bootstrap test was performed using AMOS23.0, and it was verified.

Table 4.1 Confirmatory factor analysis

| Confirmatory factor analysis | | | | | | |
|------------------------------|--------|--------------------------------|----------------|---------|---------|-----|
| | metric | factor loading | standard error | t price | P price | |
| A1 | <--- | Teaching service quality | 0.8525 | | | |
| A2 | <--- | Teaching service quality | 0.8151 | 0.0513 | 21.7921 | *** |
| A3 | <--- | Teaching service quality | 0.8955 | 0.0528 | 19101.2 | *** |
| A4 | <--- | Teaching service quality | 0.8575 | 0.0507 | 23.1327 | *** |
| A5 | <--- | Teaching service quality | 0.8359 | 0.0573 | .092255 | *** |
| B1 | <--- | educational environment | 0.8909 | 0.0508 | 2171.80 | *** |
| B2 | <--- | educational environment | 0.8911 | 0.0199 | 225.52 | *** |
| C1 | <--- | Comprehensive management level | 0.8387 | 0.0571 | 19.1591 | *** |

| | | | | | | |
|----|------|--------------------------------------|--------|--------|---------|-----|
| C2 | <--- | Comprehensive management level | 0.7089 | 0.0558 | 18.5285 | *** |
|----|------|--------------------------------------|--------|--------|---------|-----|

From the results in Table 4.1, the direct and total indirect effect values of teaching service quality on the loyalty of Chinese college students were 0.39 and 0.41, respectively. Since the effect value confidence interval of the above three paths is > 0 , assumptions 1,2 and 3 hold.

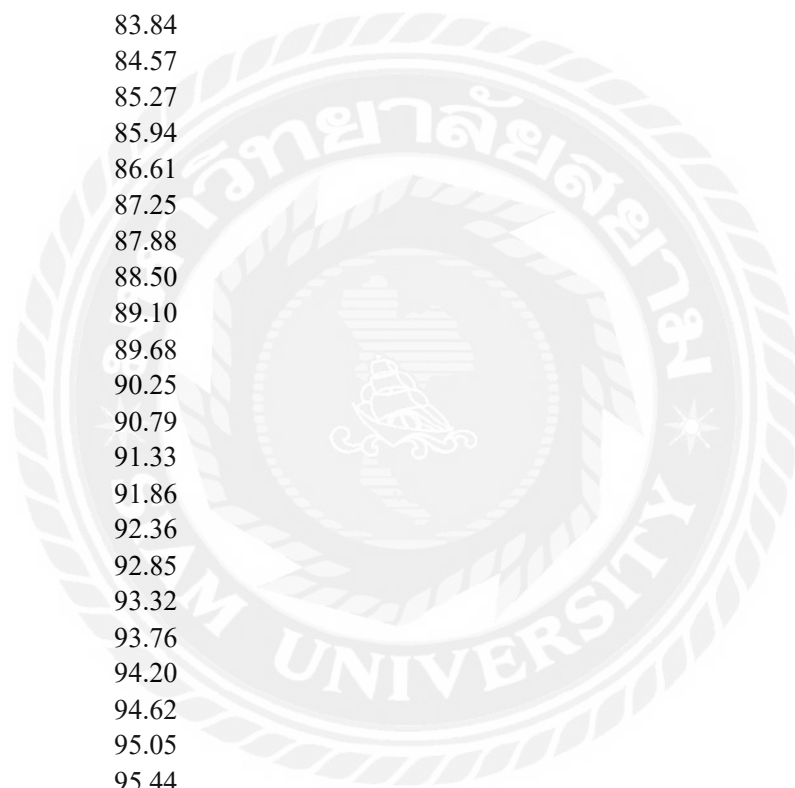
In the analysis process of the practical problems, People often want to collect as much data as possible about the analyzed objects, And then it can be more comprehensive and complete data, For example, the meta-analysis performed by Kang (2013) use factor analysis, to provide insights into the factor structure of the team process dimension, their analysis included mixed effect sizes derived from indirect measurements, these mixed effect sizes contain three separate factors for the team process dimension and the quality of team work, while these factors are also present in the data in other statistics for each sample, for example, demographic characteristics (gender, age, education and years of work) and quality of team work (workload, expertise, cognitive ability and performance). This study was conducted to further investigate the relationship between the individual factors, mainly by calculating the cumulative variance contribution of each factor to the raw data.

Then all variables as new dominant variables of the single factorial model for confirmatory factor analysis, from the results in Table 4.2.

Table 4.2 Results of total variance explained

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1.00 | 16.99 | 24.28 | 24.28 | 16.99 | 24.28 | 24.28 | 8.76 | 12.51 | 12.51 |
| 2.00 | 5.40 | 7.71 | 31.99 | 5.40 | 7.71 | 31.99 | 4.52 | 6.46 | 18.97 |
| 3.00 | 3.61 | 5.15 | 37.14 | 3.61 | 5.15 | 37.14 | 4.46 | 6.37 | 25.34 |
| 4.00 | 2.99 | 4.27 | 41.41 | 2.99 | 4.27 | 41.41 | 4.25 | 6.07 | 31.41 |
| 5.00 | 2.71 | 3.88 | 45.28 | 2.71 | 3.88 | 45.28 | 3.64 | 5.20 | 36.61 |
| 6.00 | 2.41 | 3.44 | 48.72 | 2.41 | 3.44 | 48.72 | 3.63 | 5.19 | 41.80 |
| 7.00 | 2.23 | 3.19 | 51.91 | 2.23 | 3.19 | 51.91 | 3.53 | 5.05 | 46.84 |
| 8.00 | 1.89 | 2.70 | 54.61 | 1.89 | 2.70 | 54.61 | 3.18 | 4.55 | 51.39 |
| 9.00 | 1.67 | 2.38 | 57.00 | 1.67 | 2.38 | 57.00 | 3.11 | 4.45 | 55.84 |
| 10.00 | 1.65 | 2.36 | 59.35 | 1.65 | 2.36 | 59.35 | 2.30 | 3.29 | 59.12 |
| 11.00 | 1.08 | 1.54 | 60.89 | 1.08 | 1.54 | 60.89 | 1.15 | 1.65 | 60.77 |
| 12.00 | 1.05 | 1.50 | 62.38 | 1.05 | 1.50 | 62.38 | 1.13 | 1.61 | 62.38 |
| 13.00 | 0.96 | 1.37 | 63.75 | | | | | | |
| 14.00 | 0.94 | 1.34 | 65.10 | | | | | | |
| 15.00 | 0.92 | 1.32 | 66.41 | | | | | | |
| 16.00 | 0.86 | 1.23 | 67.64 | | | | | | |
| 17.00 | 0.82 | 1.17 | 68.81 | | | | | | |

| | | | |
|-------|------|------|-------|
| 18.00 | 0.80 | 1.14 | 69.95 |
| 19.00 | 0.78 | 1.11 | 71.06 |
| 20.00 | 0.76 | 1.09 | 72.15 |
| 21.00 | 0.74 | 1.06 | 73.21 |
| 22.00 | 0.72 | 1.03 | 74.24 |
| 23.00 | 0.71 | 1.01 | 75.26 |
| 24.00 | 0.69 | 0.98 | 76.24 |
| 25.00 | 0.66 | 0.95 | 77.18 |
| 26.00 | 0.64 | 0.91 | 78.09 |
| 27.00 | 0.61 | 0.88 | 78.97 |
| 28.00 | 0.61 | 0.87 | 79.84 |
| 29.00 | 0.60 | 0.86 | 80.70 |
| 30.00 | 0.58 | 0.83 | 81.53 |
| 31.00 | 0.56 | 0.80 | 82.33 |
| 32.00 | 0.53 | 0.76 | 83.09 |
| 33.00 | 0.53 | 0.75 | 83.84 |
| 34.00 | 0.51 | 0.72 | 84.57 |
| 35.00 | 0.49 | 0.70 | 85.27 |
| 36.00 | 0.47 | 0.67 | 85.94 |
| 37.00 | 0.47 | 0.66 | 86.61 |
| 38.00 | 0.45 | 0.65 | 87.25 |
| 39.00 | 0.44 | 0.63 | 87.88 |
| 40.00 | 0.43 | 0.62 | 88.50 |
| 41.00 | 0.42 | 0.61 | 89.10 |
| 42.00 | 0.41 | 0.58 | 89.68 |
| 43.00 | 0.40 | 0.57 | 90.25 |
| 44.00 | 0.38 | 0.54 | 90.79 |
| 45.00 | 0.38 | 0.54 | 91.33 |
| 46.00 | 0.37 | 0.53 | 91.86 |
| 47.00 | 0.35 | 0.50 | 92.36 |
| 48.00 | 0.34 | 0.49 | 92.85 |
| 49.00 | 0.33 | 0.47 | 93.32 |
| 50.00 | 0.31 | 0.44 | 93.76 |
| 51.00 | 0.30 | 0.43 | 94.20 |
| 52.00 | 0.30 | 0.43 | 94.62 |
| 53.00 | 0.30 | 0.42 | 95.05 |
| 54.00 | 0.28 | 0.40 | 95.44 |
| 55.00 | 0.27 | 0.39 | 95.83 |
| 56.00 | 0.25 | 0.36 | 96.19 |
| 57.00 | 0.25 | 0.35 | 96.54 |
| 58.00 | 0.24 | 0.35 | 96.88 |
| 59.00 | 0.23 | 0.33 | 97.21 |
| 60.00 | 0.22 | 0.31 | 97.52 |
| 61.00 | 0.21 | 0.31 | 97.83 |
| 62.00 | 0.21 | 0.29 | 98.12 |
| 63.00 | 0.20 | 0.29 | 98.41 |
| 64.00 | 0.19 | 0.27 | 98.68 |
| 65.00 | 0.18 | 0.25 | 98.93 |
| 66.00 | 0.17 | 0.24 | 99.17 |
| 67.00 | 0.16 | 0.22 | 99.39 |
| 68.00 | 0.15 | 0.22 | 99.61 |



69.00 0.14 0.20 99.81
 70.00 0.13 0.19 100.00

Extraction Method: Principal Component Analysis.

From the table, the above table extracted a total of 12 factors by factor analysis, the characteristic root value is greater than 1, the cumulative variance interpretation rate of the 12 factors is 62.381%, and the cumulative variance interpretation rate of the 12 factors extracted by factor analysis are greater than 70%, indicating that the 12 factors can reflect most of the information of the original data.

Table 4.3 Common method deviation test

| Common method deviation test | | | | | | |
|------------------------------|-----------------------------------|----------|---------------|--------------------------------------|-----------|---------------|
| ingredient | Initial intrinsic value amount to | variant% | accumulation% | Rip the square and the load quantity | | |
| | | | | amount to | variant % | accumulation% |
| 1 | 10.075 | 357.9 | 357.9 | 10.075 | 357.9 | 357.9 |
| 2 | 2.975 | 10.725 | 57.705 | | | |
| 3 | 2.092 | 7.573 | 513.07 | | | |
| 5 | 1.795 | 7.339 | 70.518 | | | |
| 5 | 1.703 | 771.0 | 79.597 | | | |
| 7 | 1.337 | 55.77 | 71.272 | | | |
| 7 | 1.031 | 3.771 | 7552.9 | | | |
| 7 | 0.772 | 3.077 | 77.03 | | | |
| 9 | 0.595 | 2.123 | 70.153 | | | |
| 10 | 0.551 | 1.935 | 72.047 | | | |
| 11 | 0.537 | 1.915 | 75.001 | | | |
| 12 | 0.555 | 1.725 | 75.725 | | | |
| 13 | 0.515 | 1.567 | 77.102 | | | |
| 15 | 0.373 | 1.387 | 78.57 | | | |
| 15 | 0.37 | 1.321 | 79.791 | | | |
| 17 | 0.325 | 1.172 | 90.953 | | | |
| 17 | 0.297 | 1.077 | 92.017 | | | |
| 17 | 0.277 | 0.991 | 93.009 | | | |
| 19 | 0.275 | 0.977 | 93.987 | | | |
| 20 | 0.25 | 0.759 | 95.735 | | | |
| 21 | 0.231 | 0.725 | 95.47 | | | |
| 22 | 0.215 | 0.757 | 97.537 | | | |
| 23 | 0.207 | 0.755 | 97.17 | | | |
| 25 | 0.195 | 0.795 | 97.775 | | | |
| 25 | 0.173 | 0.591 | 97.575 | | | |
| 27 | 0.17 | 0.573 | 99.037 | | | |
| 27 | 0.152 | 0.507 | 99.557 | | | |

| | | | |
|---|-------|-------|-----|
| 27 | 0.127 | 0.555 | 100 |
| Picking method: principal component analysis. | | | |

The results of the above common method deviation test show that the characteristic root values of the three factors in this analysis are greater than 1, and the first factor can explain 34.97% of the total variation, less than 40%. Therefore, the model comparison results in this design are significant, indicating that there is no serious common method bias problem.

4.3 Discussion

4.3.1 The school emphasizes the theory to light the employment practice teaching concept

Higher vocational education is different from ordinary higher education. Its talent training objectives meet the needs of local economic development. It is to train high-quality and high-skilled talents for the country and society (Mac, 2003). The key to its training is students' hands-on ability and vocational skills. Although most higher vocational colleges have their own goals, they still pay more attention to theory than practice in the actual training process, and there is still a particular gap between the talents trained and the actual needs. The school is continuing the traditional educational concept of emphasizing theory over practice. Under the traditional education concept, higher vocational education only pays attention to teaching theoretical knowledge, neglecting the cultivation of students' practical abilities (Shepard, 2000). In contrast, practical operation can help students better master professional knowledge and improve professional skills, and enhance students' social adaptability and professional identity. At present, the following problems generally exist in practical teaching in higher vocational colleges:

(1) The practice teaching system is not perfect

Most higher vocational colleges lack systematic planning for the practical teaching system and often cannot be fully reasonable when combining theory with practice. Students often cannot continue to study when they encounter difficulties in the learning process, and there is no way to solve problems. Therefore, higher vocational students have a solid grasp of theoretical knowledge but poor practical ability. The problem is not the lack of absolute correctness but the lack of accurate predictive validity of personal interpretation in the intermediary social environment. Therefore, it is essential to note that to learn effectively, students must obtain the social elements that support the development of individual interpretation (Belsito, 2016). By appreciating the thinking process, cognitive conflict and social appropriate prediction ability, learning is no longer judged as the "error" of accepting facts and related problems, and becomes the social identification and appropriate form of appreciating the definition of personal interpretation, problem creation and effectiveness (Adams, 2006). Therefore, the purpose of learning is to realize the reality of others and their relationship. When planning practical teaching, the school lacks scientific and reasonable planning and guidance on constructing a training base. It lacks a complete set of assessment standards

and a supervision system in the practical teaching system, which leads to some students' lack of sufficient responsibility and enthusiasm. Secondly, higher vocational colleges have an insufficient investment in practical teaching, and some schools lack effective management of experimental training equipment, resulting in many professional experimental training courses can not be carried out smoothly. In addition, there is a lack of a reasonable management system for practical teaching, and the arrangement of practical teaching courses also lacks proper planning and planning, leading to students' lack of practical ability.

(2) Problems in the professional practice teaching system

Most vocational colleges have not scientifically analyzed the talent standards according to social development. Due to the requirement of interpersonal relationships in social constructivism, a key factor is an ability to decode the accompanying language (Shepard, 2000), to negotiate in the famous individual-to-society structure, and social interaction may be enabled. Therefore, the implicit problem in the position of social constructivism is the need to pay attention to learners rather than the topics to be taught and recognize that there is no knowledge independent of the meaning of learners' experiences in the learning community (Hein, 2009). Therefore, when designing the professional practice teaching system, its content also needs to be planned and adjusted according to the social development trend, resulting in students' lack of enthusiasm and enthusiasm in the learning process.

4.3.2 School service awareness needs to be improved urgently

As an extraordinary service institution, higher vocational colleges should pay attention to the service for teachers and students. In addition to managing and evaluating teachers and students in teaching management, higher vocational colleges should also have a sense of service in teaching, meet the needs of teachers and students, ensure the quality of teachers' teaching and improve the quality of students' learning. The availability of this electricity infrastructure will make it easier and more comfortable for students to study in schools or their houses. Milanowski (2004) also pointed out that regional expenditure variables have little impact on student performance, and the share of education expenditure is mainly used for teacher costs. The research by Kimball (2004) pointed out that the education expenditure mainly used for teachers' costs includes teachers' salaries and certification allowances. The government still pays insufficient attention to the allocated teacher training and development budget. Based on some studies, the class size effect or low teacher-student ratio has little influence or advantage on students' performance. Lacour and Tissington (2011) pointed out that the distribution of teachers in different regions of Indonesia is uneven. Areas with too many teachers will have a large expenditure and vice versa. The budget for teacher education in remote areas and rural areas is insufficient.

Policies should focus on improving teachers' ability and professional development rather than on reducing class size or increasing individual teachers. The distribution of teachers requires action by the central government because teachers in some areas are not equal. The central government should implement this policy because the local

government completes teacher recruitment without coordination and communication with other local governments. However, the investigation found that higher vocational colleges still lack service awareness in ensuring teachers' teaching and students' learning. Higher vocational education is employment-oriented and utilitarian. It focuses on the employment rate of graduates rather than the future development plan of students. Students are not satisfied with the skill level of practical teachers. In the final analysis, schools do not emphasize teacher vocational skill training (Wilkinson & Dale, 2002). Most vocational colleges only have pre-service training and lack in-service and post-vocational training. The main body of teacher training in higher vocational colleges comes from vocational and technical teachers colleges, ordinary colleges and universities, the national backbone teacher base of vocational education, and enterprises. At present, the practice teachers in higher vocational colleges are mostly master students, and some are doctoral students who graduated from ordinary universities. These teachers have rich theoretical knowledge, but their practical skills are relatively weak and they lack practical work experience in enterprises. The school will give practice teachers the opportunity to practice in enterprises before they take up their posts, but most only have a short internship of one to two months during the winter and summer holidays. The importance of hardware learning resources is not enough. Higher vocational colleges invest more of their limited funds in the purchase of available paper resources and electronic resources, one-sidedly meeting the rigid indicator of a large number of evaluation pursuits while ignoring the structural, practical and professional nature of library resources, and less considering the characteristics of higher vocational education.

4.4 Results of the Study

The specific activities are shown in Table 4.4 below:

Table 4.4 Study hypothesis validation table

| number | hypothesis | bear fruit |
|--------|--|------------|
| | The SERVQUAL model of Shandong Commercial Vocational and Technical College has a significant positive influence on the behavior intention of students. | |
| H1 | H1a: Investigate the impact of tangible assets on the loyalty of Chinese college students in Shandong Commercial Vocational and Technical College. | Establish |
| | H1b: Investigate the impact of responsiveness on the loyalty of Chinese college students in Shandong Commercial Vocational and Technical College. | |

H1c: Investigate the influence of empathy on the loyalty of Chinese college students in Shandong Vocational and Technical College of Commerce.

H1d: Investigate the influence of assurance on the loyalty of Chinese college students in Shandong Commercial Vocational and Technical College.

H1e: Investigate the influence of reliability on the loyalty of Chinese college students in Shandong Commercial Vocational and Technical College.

| | | |
|----|---|-----------|
| H2 | The educational environment of Shandong Commercial Polytechnic is positively related to the satisfaction of Chinese college students. | Establish |
| H3 | The comprehensive management level of Shandong Commercial Polytechnic has a positive correlation on the satisfaction of Chinese students. | Establish |

Combined with the data analysis, it is found that the research and analysis of the problems in teaching quality in higher vocational education can help students have a better understanding of the school learning effect and the school environment and facilities in various aspects. The research on teaching quality of higher vocational colleges based on the perspective of student satisfaction provides a new idea and perspective for relevant researchers. It takes "student-oriented" as the evaluation basis and starts with the management and improvement of higher vocational education from the perspective of student satisfaction. It has the most discourse right to teaching quality, and also provides an effective channel for higher vocational students to feedback teaching quality to schools, and promote the sustainable development of higher vocational education.

This chapter discusses the current situation of the teaching service quality evaluation, and discusses the reality from the quantitative analysis. The content of the hypotheses was found to have a positive effect, so both H1-H3 were true.

Chapter 5 Conclusion and Recommendation

5.1 Conclusion

As the direct participants in the teaching activities of higher vocational colleges, students' needs are the driving force to improve the teaching quality of higher vocational colleges. Students' evaluation of the teaching quality of higher vocational colleges can directly reflect the advantages and disadvantages of the teaching quality, and schools can make targeted improvements according to the problems pointed out by students. The current research results clearly show that teacher burnout and stress are not only personal and financial problems of teachers and managers but also personal problems affecting students.

Although school reform efforts have emphasized the importance of quality teaching (Hill et al, 2005), school administrators, policymakers and stakeholders should not underestimate the role of teachers' mental health in students' learning. Kane, Rockoff and Staiger (2008) believed that teachers, as an independent issue, should consider interventions to reduce teacher stress and burnout when formulating strategic plans to improve teaching quality and student participation. Cheng et al (2016) pointed out a positive correlation between teacher evaluation scores and student performance. That is, higher vocational colleges must actively adapt to the needs of social development, pay attention to the needs of students, and solve the problems of teaching quality from the root, so as to promote the connotation construction of higher vocational colleges, promote the sustainable development of higher vocational colleges, and improve the satisfaction of students.

Moreover, through quantitative results, it was found that for the overall teaching quality process management of Shandong Commercial Vocational and Technical College, the relevant academic affairs departments on campus pay more attention to the inspection and management of teachers' lesson plans, but the attention to the mastery and application of teachers' teaching skills and output effects is not close; For the management of online teaching processes, relevant departments and teachers of the school pay attention to student check-in management, but neglect the management records of students' classroom participation, enthusiasm, and learning effectiveness; For post teaching management, emphasis is placed on whether students' homework is completed or not, while neglecting students' feedback and communication on teaching effectiveness. Moreover, traditional teaching assessment systems control and constrain the behaviour of teachers and students to comply with management standards, ensure regular teaching order, and restrict and restrict the participation of teachers and students in the teaching process. Many universities in China, in order to ensure standard teaching order, The lack emphasis on quality and the actual subjective initiative of teachers and students in the classroom can ensure basic teaching order. However, management actions have become superficial, and targeted incentive and feedback measures have not been fully taken based on the characteristics of each link in the management process. The main role of teachers and students in the online teaching process has yet to be fully

explored, and the teaching effect has been dramatically reduced. Moreover, in combination with the current problems, It has also been confirmed that many schools currently prefer theoretical teaching in their teaching. So first of all, relevant departments in universities should establish the concept of comprehensive quality management and actively explore the models and optimization paths of comprehensive quality management. Secondly, in developing process standards and monitoring process effectiveness, communication channels between teachers, students, and administrative departments should be established, and opinions on teaching quality management should be actively feedback from teachers and students. Multidimensional teaching information feedback methods should be developed instead of single evaluation indicators.

Therefore, based on the example of Shandong Commercial Vocational and Technical College, especially the deficiencies in the teaching quality of higher vocational colleges, and on this basis, according to the needs of students' development, this paper puts forward targeted improvement measures to improve the teaching quality, thus improving students' satisfaction with the teaching quality, enhancing the attraction of higher vocational education, and improving the quality of higher vocational education. Based on satisfaction, the research on teaching quality in higher vocational colleges will provide a reference basis for improving teachers' teaching and students' learning efficiency. Higher vocational education, as a type of knowledge and skill education characterized by vocational skill training, has positive significance in improving students' comprehensive quality and vocational skills. At the same time, it summarizes the current situation of teaching quality in higher vocational colleges, analyzes the problems behind the current situation in depth, and changes the concept to establish a student-centered quality view; Innovate and develop the construction of teaching staff to improve the quality of students' learning; Attach importance to practical teaching and improve students' professional ability; Renew teaching methods and pay attention to students' needs; Improve the teaching management level and enhance the school service awareness; Pay attention to learning resources inside and outside class and create learning conditions; Countermeasures and suggestions to improve the satisfaction of higher vocational students with teaching quality in terms of cultivating students' learning initiative and improving students' sense of learning belonging.

5.2 Recommendation

5.2.1 Improve the quality of employment guidance services

The ultimate purpose of employment guidance is to enable students to find satisfactory jobs and jobs that are conducive to students future career development. There are still some problems in the employment guidance service of higher vocational colleges in terms of the teaching staff and the professional level of the employment guidance service. As an employment-oriented education concept, vocational colleges and universities should integrate the employment guidance service into the teaching system and the daily teaching and practice of the school as a link to help students obtain

employment smoothly. Employment guidance services should be systematic work, employment-oriented and student-centered (Wahlstrom & Louis, 2008). Carry out corresponding curriculum design in the teaching system. Provide complementary guidance services in daily activities. So as to realize an accurate employment guidance service. In the college education mode, the following requirements are put forward for college students' employment guidance to promote the smooth employment of college students. First of all, establish a professional teaching staff for employment guidance services. Employment guidance teachers should not only have professional theoretical knowledge but also understand the market and industry information, always pay attention to the development trend of the industry, and help students establish their career development direction according to the characteristics of the discipline, students' unique interests and industry requirements, for example, hire industry and enterprise experts as visiting professors of the school to guide students how to carry out career planning. Secondly, establish a scientific and reasonable guidance system for students' career development.

On the one hand, schools should strengthen the construction of employment guidance courses, including curriculum, teacher training, teaching material construction and innovation of employment guidance methods. On the other hand, schools should improve the teaching quality of students' employment guidance services through student evaluation and other ways. Finally, establish an effective employment guidance mechanism (Hanaysha, Dileep & Hilman, 2012). At present, colleges and universities lack corresponding management systems, management methods and procedures for graduates' employment work, making it difficult for students to understand relevant policies and regulations, and graduates cannot obtain relevant policy services.

5.2.2 Attach importance to the construction of learning resources inside and outside the class

First of all, we should strengthen the hardware construction of Shandong Commercial Vocational and Technical College, ensure high-quality learning resources and improve learning efficiency; Secondly, we strengthen the construction of teachers. Teachers are the soul of higher vocational colleges. First, strengthen the construction of library resources. We should enhance the technical and practical nature of the collection resources and improve the quality of the collection. Most majors in higher vocational colleges have solid technical applicability (Ball, 1999). Therefore, library collection resources should be purchased according to specialty settings and subject characteristics. Books with strong technical characteristics in science and engineering should meet the needs of students' vocational skills qualification examination and engineering training and production practice.

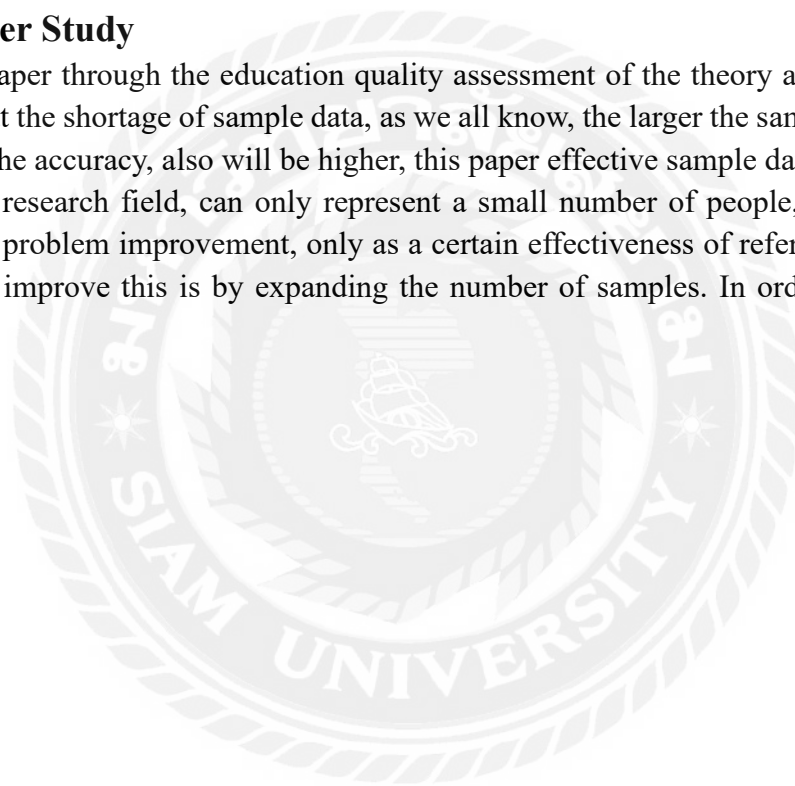
Second, we should purchase resources according to students' professional needs (Ganić et al, 2018). The unreasonable specialty setting of Shandong Commercial Vocational and Technical College has led to an imbalance in students' professional knowledge structure. To enable higher vocational students to better adapt to the needs of society and enterprise development, Shandong Commercial Vocational and Technical College can purchase books and resources closely related to the department or position

of the students or highly professional according to the actual situation to meet the needs of students' development and the needs of the society for talents. At the same time, we should make full use of library resources to realize information resource sharing and improve the learning efficiency of vocational students.

Third, we should also consider improving students' professional theoretical knowledge and skills. With the continuous upgrading of the industry and emerging industries, Shandong Commercial Vocational and Technical College should update the book resources in time to ensure that the knowledge and skills acquired by students can meet the actual job requirements. For new majors and courses, it is necessary to purchase relevant professional book resources in time to ensure that students have learning resources available.

5.3 Further Study

This paper through the education quality assessment of the theory and empirical analysis, but the shortage of sample data, as we all know, the larger the sample number, represents the accuracy, also will be higher, this paper effective sample data for 110, in the current research field, can only represent a small number of people, for the real pursuit and problem improvement, only as a certain effectiveness of reference. Future research to improve this is by expanding the number of samples. In order to further explore it.



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Appendix

Questionnaire survey

Dear Sir / Madam, thank you very much for taking time out of your busy schedule to participate in this questionnaire survey. This questionnaire aims to understand the unsafe behavior influence of construction workers in work and family conflicts and some factors. Please answer your feelings and opinions truthfully. This questionnaire is anonymous, please fill in according to your actual situation. This study is only an academic analysis and will not be used for other purposes. Thank you very much for your participation.

Part 1: Basic information

1. Your gender:

male and female

2. Your age group

18~28

28~38

38~48

More than 48

3. Your education level

High School and below

junior college education

undergraduate college

Graduate students and above

4. Nature of your unit

construction organization

development organization

design unit

other

5. Your family size?

o 1 o 2 o 3 o ≥ 4

Part two: Variable influencing factors part

| Teaching service quality | Very disagree 1 | disagree 2 | indeterminacy 3 | agree 4 | Very much agree 5 |
|--|--------------------|---------------|--------------------|------------|----------------------|
| Tangible assets have an influence on the loyalty of Chinese college students in Shandong Commercial Vocational and Technical College. (A1) | | | | | |
| Responsiveness has an influence on the loyalty of Chinese college students in Shandong Commercial Vocational and Technical College. (A2) | | | | | |
| Empathy has an influence on the loyalty of Chinese college students in Shandong Commercial Vocational and Technical College. (A3) | | | | | |
| Guarantee has an influence on the loyalty of Chinese college students in Shandong Commercial Vocational and Technical College. (A4) | | | | | |
| Reliability has an influence on the loyalty of Chinese | | | | | |

| | | | | | |
|--|--|--|--|--|--|
| college students in Shandong Commercial Vocational and Technical College. (A5) | | | | | |
|--|--|--|--|--|--|

| educational environment | Very disagree 1 | disagree 2 | indeterminacy 3 | agree 4 | Very much agree 5 |
|--|--------------------|---------------|--------------------|------------|----------------------|
| The educational environment has not been updated in time. (B1) | | | | | |
| Educational environment infrastructure. (B2) | | | | | |

| Comprehensive management level | Very disagree 1 | disagree 2 | indeterminacy 3 | agree 4 | Very much agree 5 |
|---|--------------------|---------------|--------------------|------------|----------------------|
| Some leaders can not take the lead in implementation, but the comprehensive management level requirements. (C1) | | | | | |
| The leader only looks at the results and forces them to finish. (C2) | | | | | |

thanks!