THE APPLICATION OF BLENDED TEACHING IN "PACKAGING DESIGN"COURSE—A CASE STUDY OF QUANZHOU COLLEGE OF TECHNOLOGY
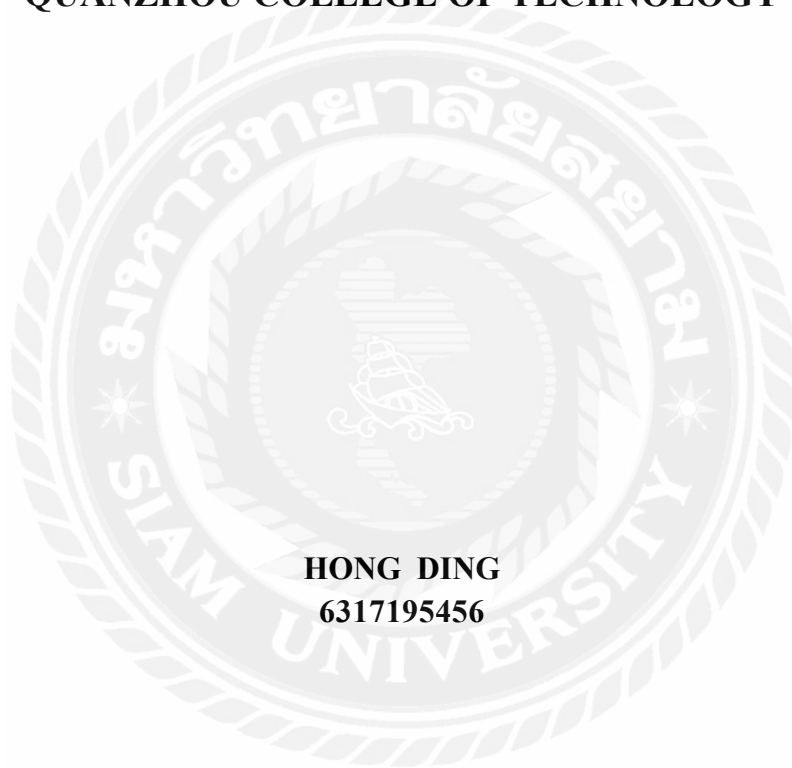
HONG DING
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AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE MASTER'S DEGREE OF BUSINESS ADMINISTRATION GRADUATE SCHOOL OF BUSINESS SIAM UNIVERSITY 2023

THE APPLICATION OF BLENDED TEACHING IN "PACKAGING DESIGN"COURSE—A CASE STUDY OF QUANZHOU COLLEGE OF TECHNOLOGY

Thematic Certificate

To

HONG DING

This Independent Study has been Approved as a Partial Fulfillment of the Requirement of International Master of Business Administration in International Business Management

Advisor: ……………........................
(Dr. Zhang Li)

Date: ………11…/………9……/………2023

……………………………………………………………
(Associate Professor Dr. Jomphong Mongkhonvanit)
Dean, Graduate School of Business Administration

Date………20…/……9…/……2023
Siam University, Bangkok, Thailand

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By:	HONG DING
Degree:	Master of Business Administration
Major:	International Business Management

Advisor : ....

(Dr. Zhang Li)

.............11.........9.........., 2023.....................

ABSTRACT

The purpose of this study is to analyze the current situation of the blended teaching of "Packaging Design" course, explore its influencing factors and differences, and explore its improvement strategies. The three objectives of this study are : 1) To Analyze the current implementation status of blended teaching of Packaging Design course; 2) To explore the factors and differences that influence the learning effect under blended teaching; 3) To discover students' learning intention and interest in the "Packaging Design" course under blended learning so as to improve students' professional ability and provide more outstanding applied talents for the design industry

This paper adopts the literature research methods and questionnaire survey methods are used to analyze this problem. Taking the packaging design course of advertising major in Quanzhou Vocational College of Light Industry as an example, constructivism, humanism and master learning theory are used as the main theoretical basis for students and teachers of advertising design major in vocational college where the author works. By means of questionnaire and interview, the application status of teachers and students in the course of "Packaging Design" was investigated. Through research, the results showed that: First of all, teachers and students were mostly satisfied with the attitude towards the blended teaching, and the enthusiasm of students for the course learning was improved under the blended teaching. Secondly, mixed teaching can help improve students' professional ability of packaging design. Thirdly, according to the data, there are significant and strong positive correlation among the five influencing factors of mixed teaching effect, among which learning interest has the greatest influence on students' learning satisfaction. This study hopes to provide some reference significance for improving the teaching quality of colleges and universities.
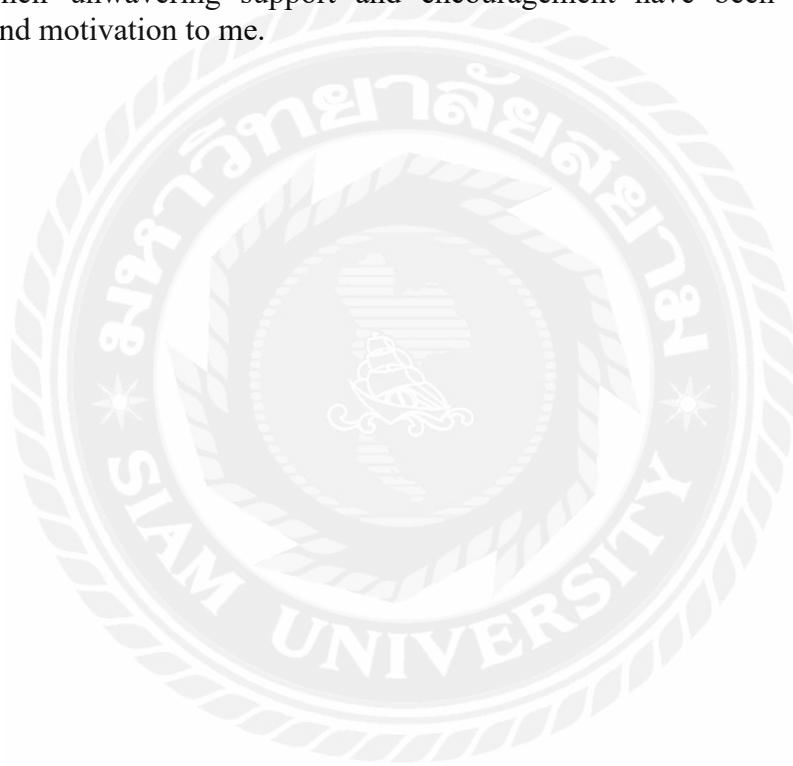
Keywords: blended teaching, packaging design, high vocational colleges

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Declaration

I, Hong Ding, hereby certify that thework embodied in this independent study entitled "The Application of Blended Teaching in "Packaging Design" Course—A Case Study of Quanzhou College of Technology" is result of original research and has not been submitted for a higher degree to anyother universityor institution.

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(HONG DING)

Apr 26, 2023

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Chapter 1 Introduction

1.1 Background of the Study

1.1.1 Promotion of education informatization

The "Thirteenth Five-Year Plan for Educational Informatization" issued by the Ministry of Education Actively carry out online and offline hybrid teaching reforms of online open courses, promote the deep integration of information technology and education, encourage teachers to use information technology rationally to improve teaching and meet students' individualized learning and development needs (Feng, 2020). The Ministry of Education issued the "Education Informatization 2.0 Action Plan", proposing to actively promote the deep integration of "Internet+Education" and realize the modernization and informatization of education. China's "National Medium and Long-term Education Reform and Development Plan (2010-2020)" document pointed out that it is necessary to strengthen the application of information technology, update the concept of information-based teaching, improve teaching methods, improve teaching effects, and at the same time encourage students to use informal means to take the initiative. Learning, independent learning, and enhancing the ability to use information technology to analyze and solve problems (Chen, 2022). From the relevant policy documents above, it can be seen that the country attaches great importance to the informatization of education. The focus of the deep integration of information technology and education lies in the correct application of information technology to optimize the teaching environment and improve teaching methods to meet the individual learning needs of students. The training needs of compound talents. Therefore, it can be predicted that under the background of the "Internet+Education" era, the reform of educational informatization will continue to advance, and blended teaching will become one of the development directions of future education and teaching (Ma, 2021).

1.1.2 Requirements for Vocational Education Teaching Reform

Higher vocational education is an integral part of my country's higher education, and the development of vocational education is closely related to the development of Chinese society (Xu, 2016). In recent years, China has promulgated several educational documents to pay attention to higher vocational education, requiring continuous improvement of the teaching quality and emphasis on the all-round development of professional and technical personnel. In order to ensure that the quality of vocational school talent training is in line with market demand and that the training objectives match the needs of enterprises (Liu & Huang, 2019), it is necessary to carry out vocational education teaching reforms, reform outdated teaching concepts and teaching methods, and break the limitations of traditional teaching. Cultivate students' innovative thinking, help students master the knowledge and skills required for the job, and the ability to follow the development of the times and adapt to future work.

1.1.3 The application of blended teaching in the "Packaging Design" course of advertising design major in vocational colleges

"Packaging Design" is the core advertising design course, primarily in vocational colleges. The course covers many contents and is highly practical and operable. Blended teaching is a kind of "online+offline" teaching that combines the advantages of traditional teaching and online teaching. With the help of rich Internet teaching resources, it broadens the channels for students to learn packaging design knowledge and promotes learning. diversification (Li, 2021). In terms of space, the hybrid teaching mode breaks the limitation of traditional classroom teaching of packaging design courses, effectively makes up for the problem of single teaching method of traditional packaging courses, stimulates students' interest in packaging design innovation, cultivates students' innovative thinking (Hao, 2021). And then improves students' packaging Design practice ability and cultivates compound professionals with good innovation ability and practical ability for the packaging design industry.

In summary, with the rapid development of "Internet+", the integration of education and the Internet has become a hot issue in educational research. On the other hand, with the rapid development of my country's packaging industry in recent years, the industry has higher and higher requirements for the comprehensive ability of packaging designers (Ji, 2022). Moreover, the traditional teaching mode can no longer meet the knowledge structure and ability requirements of packaging design talents. In the mixed mode, it is beneficial to improve the independent learning ability of higher vocational students, increase the participation of students in the learning process, improve the effect of classroom teaching, and improve the quality of teaching.

1.2 Problems of the Study

The blended teaching mode integrates the online teaching mode based on the traditional classroom teaching mode. Therefore, it can break through the limitations of time and space in the teaching process and broaden the channels for students to learn packaging design knowledge with the help of rich Internet teaching resources—the diversification of students' learning styles (Zhou & Zhou, 2021). The traditional teaching mode of packaging design courses is that teachers combine their own teaching experience to pass on relevant packaging design knowledge to students, and the teaching mode is mainly based on teacher teaching and supplemented by students' independent design. As a result, students are not very motivated in the learning process, which affects the teaching effect and classroom quality of packaging design course teaching. Compared with traditional teaching, the "Packaging Design" course fully highlights the subject status of students under the application of blended teaching. Through a flexible teaching environment, the subjective initiative of learning packaging design professional knowledge is improved, and students' enthusiasm for learning courses is improved (Li, 2022).

Applying what you have learned is the fundamental teaching goal of the packaging design course, and transforming complex theoretical basic knowledge into practical application results is the basis of the teaching activities of the packaging design course (Li, 2022). However, in the current "Packaging Design" course, there is a situation where students' theoretical knowledge is divorced from practice, resulting in defects in the practical application of the combination of professional theoretical knowledge, which in turn causes the packaging design knowledge learned by students to fail to meet the current packaging design market. need. Therefore, to improve students' professional quality in packaging design, it is necessary to strengthen students' practical links in the "Packaging Design" course and students' practical application ability.

The blended teaching mode is developed basis on the traditional teaching mode. Its advantage is to teach through the online platform, enrich the teaching methods and content of the course, and improve the teaching quality and efficiency. There are differences in the learning knowledge levels of students in higher vocational colleges. Teachers need to understand students' learning needs and situations in a timely manner, formulate corresponding learning plans for different learning situations, and combine diverse teaching methods in the mixed teaching process to help students learn well. The environment fully stimulates interest in learning.

1.3 Objectives of the Study

In 2021, Wu Yan, director of the Higher Education Department of the Ministry of Education, mentioned at the 12th Xinhuanet Education Forum: The new integration of technology and teaching and education will trigger a new learning revolution, and blended teaching will become The new normal of higher education teaching in the future (Wu, 2021). Learning technology is new to educational productivity. Teachers' "teaching" must be combined with new technologies, and students' "learning" must be learned through new technologies. Therefore, the primary purposes of this study mainly include:

1.To analyze the current implementation status of blended teaching of Packaging Design course

2. To explore the factors and differences that influence the learning effect under blended teaching.

3.To discover students' learning intention and interest in the "Packaging Design" course under blended learning so as to improve students' professional ability and provide more outstanding applied talents for the design industry (He, 2021).

1.4 Significant of the Study

1.4.1 Theoretical significance

Blended teaching provides a particular opportunity and theoretical basis for the reform of higher vocational education.The author sorts out relevant literature and finds that most scholars' research focuses on the display form and implementation tool application of blended teaching. A few scholars will pay attention to the current situation of teachers' implementation of courses under the mixed teaching mode and the factors that affect students' learning effects and their differences. Therefore, researching and analyzing the blended teaching mode from this perspective can further deepen and enrich the theory of the blended teaching mode and provide theoretical guidance for the practice and application of the blended teaching mode in other courses of advertising majors in higher vocational colleges in the future (Cao, 2020).

1.4.2 Practical significance

The blended teaching mode can get rid of the restrictions of learning time and learning place, and the learning methods are more diversified and timely. Students can maintain interaction with teachers at any time online, which is more conducive to improving students' learning enthusiasm and enhancing learning effects compared with traditional teaching (Cao & Hao, 2018). Through the research on the application of the blended teaching model in the "Packaging Design" course, it is beneficial to promote the promotion and use of blended teaching in higher vocational colleges and to optimize the application design of blended teaching in higher vocational colleges. The practice of teaching mode in other disciplines in higher vocational colleges provides a certain reference.

1.5 Limitation of the Study

Due to the limitations of the author's research resources, the respondents of this study are mainly from the J vocational college where the author works, and the number of research samples is limited, which may cause certain deviations in the analysis results; whether the obtained data and conclusions can represent The actual situation of other higher vocational colleges, whether it is adaptability and explanatory power are reasonable, all need to be studied.

The applicability of this model also needs to be further verified. This practice is only aimed at the course "Packaging Design" for advertising majors. The applicability and promotion of other types of courses lack the support of experimental data. The applicability of different types of courses is also an important issue. Down to further in-depth study of the key points.

Chapter 2 Literatures Review

2.1 Introduction

Blended teaching is a learning theory developed by the foreign education industry that combines online and traditional face-to-face teaching. In recent years, with the continuous innovation of Internet technology, software platforms to assist the implementation of blended teaching have emerged (Wang, 2022). Whether in China or other countries, blended teaching has become an indispensable teaching method. This study uses "blended teaching" as the main keyword to search for relevant literature, sort out and summarize the references, and clarify the definition of blended teaching and the relevant theoretical basis for supporting this article.

2.2 Terms and Definition Used in This Study

2.2.1 Blended Teaching

Blended teaching started relatively late in China, but it has attracted more and more attention from scholars. Each scholar has a different focus on the definition of blended teaching (Huang, 2022). In the early days, scholars mainly defined blended teaching from a technical perspective. Blended teaching, translated as "blending learning" or "blended learning" in English, is a teaching mode that uses the educational platform developed by Internet technology to integrate traditional teaching to form "online"+"offline" combined teaching. The concept of blended learning originated from foreign corporate training and education. Considering company employees' geographical and time needs, the combination of offline and online training was carried out and gradually improved, and then the blended learning method was applied to In-classroom teaching (Zuo, 2021). With the continuous development of Internet technology, information technology and the education industry are organically integrated. In order to adapt to the growing industry ecology, meet the diverse needs of the talent market for talent training, and actively respond to the education reform policy of the education department, blended teaching integrates traditional teaching with multimedia technology into the education industry. Under the continuous research and practice of many scholars at home and abroad, this teaching model has been widely used in domestic and foreign education circles. Scholars continue to carry out research from theoretical exploration, integrate traditional teaching with innovative teaching design and practice, and continue to explore the application of blended teaching in multidisciplinary field.

To understand blended teaching, you must first know the concept of blended learning. The difference between the two lies in the different object-oriented. Professor He Kekang from China believes that "blended learning is the combination of the advantages of traditional learning methods and online learning methods", which should not only play the leading role of teachers in teaching but also reflect students' initiative,

enthusiasm and creativity (He, 2004). Scholar Li Kedong believes that blending can be defined from different perspectives, such as the blending of face-to-face classroom and online learning, the blending of multiple teaching theories, the blending of multiple technical supports, the blending of multiple teaching environments, the blending of teacher-led and student-subjective (Li, 2004). Li Jiahou believes that the essence of blended learning is to select, combine and optimize various teaching elements with the assistance of information technology to achieve the expected teaching goals (Li, 2014). Based on this, blended teaching means that teachers combine various learning methods in the teaching process and design online and offline learning activities to stimulate students' learning enthusiasm and initiative. Blended teaching has changed the traditional teaching method and puts new requirements for teachers in the new situation (Yang, 2008). The author believes blended teaching is not simply a combination of the two. Teachers should comprehensively consider the advantages of online and offline teaching when designing blended teaching. The designed teaching activities must be effectively connected, and the content of each link should be inseparable. Compared with traditional classroom teaching, blended teaching takes advantage of information technology and has the advantages of digitization of information and convenient resource acquisition. The teaching design runs through the three links of pre-class, in-class and after-class, so learning is no longer necessary. Confined to the classroom (Li, 2018).

2.2.2 Research overview of blended teaching

The author takes "blended teaching" as the subject keyword, takes the Chinese core periodical documents of the official website of CNKI (https://kns.cnki.net/) as the primary data source, and retrieves a total of 17,612 relevant documents, of which 13,337 academic journals and 626 dissertations. The author compiled statistics on the number of articles published in the past ten years into a chart, as shown in Figure 2-1. According to the annual publication trend of these documents, the number of publications from 2014 to 2015 is minimal. In China, scholars have very little research on "online blended teaching". Since 2016, the research on this topic has shown a gradual growth trend, and the number of research papers on blended teaching will reach its peak in 2021, with a total of 3,223, which shows that domestic scholars have paid more attention to blended teaching in recent years. The author believes that part of the reason is related to the rapid development of educational information technology and the country's emphasis on educational information technology. In addition, it may also be due to the disadvantages of traditional teaching and pure online teaching. The above reasons make blended teaching a new era of education. The hotspots of development have been studied and discussed by scholars. To sum up, in recent years, as domestic scholars continue to carry out academic research on "blended teaching", they have accumulated some valuable experience and have a specific theoretical and practical basis, which also provides a basis for later scholars to research similar topics. To a specific citation and reference significance (Wang, 2022).
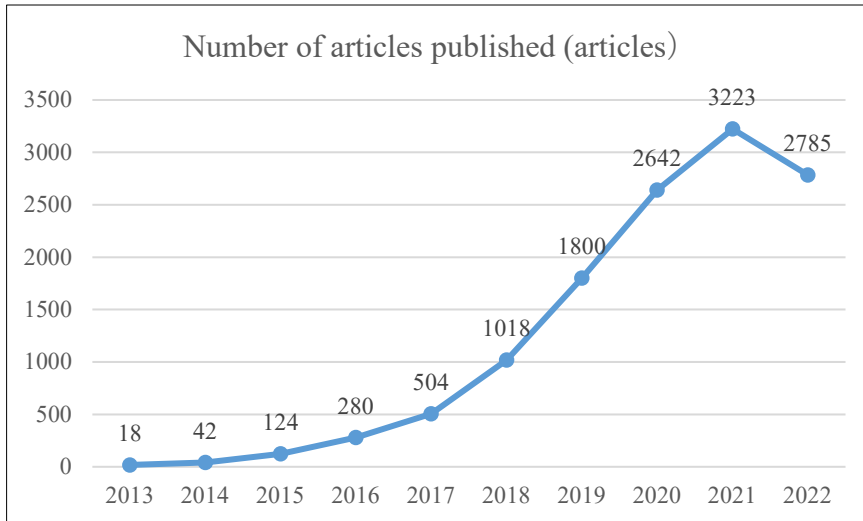
Figure 2-1 Trends in the number of published documents

The author further analysed the publication of blended teaching papers and analyzed the research content of scholars in this field through "themes". From the distribution of central topics in Figure 2-2, "blended teaching mode" appeared the most frequently, 3529 times; the theme of "application in teaching" and the theme of "blended teaching reform" appeared 799 times and 611 times, respectively; "Higher vocational colleges" appeared 232 times, and "applied research" appeared 151 times. It can be seen that most research scholars' research on the theme of "blended teaching" mainly focuses on "teaching mode" and "teaching application", "teaching reform", and "teaching design". From the perspective of research objects, the current research on "blended teaching" in higher vocational colleges in China is more than other types of colleges.
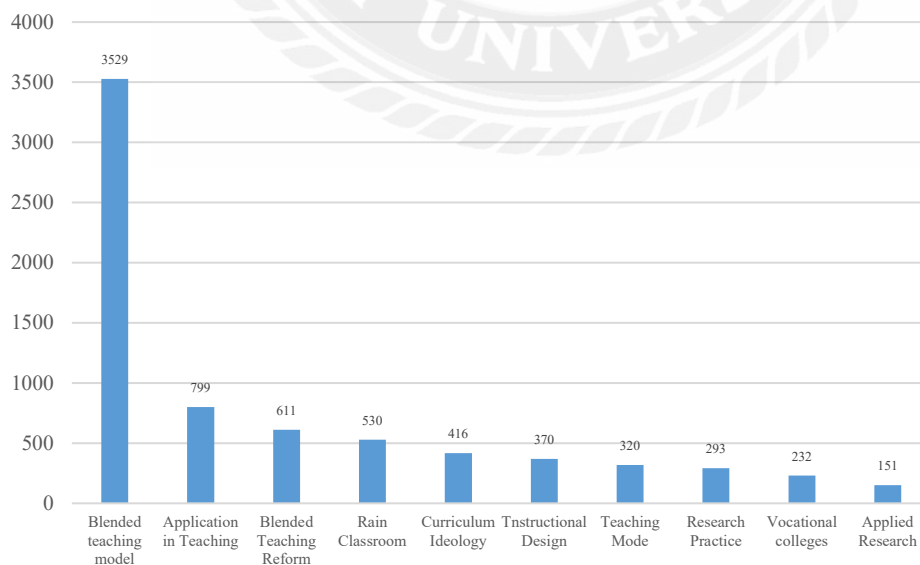
Figure 2-2 Distribution map of blended teaching research topics

2.2.3 Research Status of Blended Teaching

The relevant research on blended teaching in China is later. With the continuous expansion of the influence of the blended teaching model, many researchers of this teaching model have gradually appeared in China. Regarding the research on the connotation of blended teaching, Li Maoguo, a researcher from Chongqing University, believes that blended teaching is a good teaching model to promote the reform of higher education teaching. The development of blended teaching must have mature information technology support, and it is also necessary to cultivate teachers' teaching abilities. Teaching evaluation must also be tangible (Li, 2018). Shao Hua researched the reconstruction of the connotation of blended teaching in higher vocational colleges. He believes that the current application of blended teaching in domestic higher vocational colleges has achieved good results. With the development of information technology, the impact of the epidemic, and other factors, Higher vocational education should aim to reconstruct the connotation of the blended teaching mode and improve students' ability to apply skills and practice (Shao, 2021). He Kekang believes that blended teaching needs to combine the advantages of traditional teaching and integrate digital technology into teaching. Teachers should guide students and drive students' enthusiasm and creativity in learning (He, 2004).

2.2.3.1 Research on the application effect of blended teaching

With the continuous deepening of research, the practical results of blended teaching are increasing, and most affirm the application effect. Ma Lili carried out cloud-based blended learning in the foundation of higher vocational computer applications and concluded that blended learning could improve students' learning interests and academic performance (Ma, 2015). Li Xiaoyan carried out flipped classroom teaching with the help of the Blackboard platform and applied hybrid teaching to the course "Electrodynamics". After statistical data analysis, it was concluded that this teaching mode improved students' learning attitudes and comprehensive quality (Li, 2016). According to the current high school mathematics teaching situation, Li Qi put forward the mixed teaching mode of high school mathematics with the Edmodo platform as the carrier. After practice, he concluded that students' learning enthusiasm, independent inquiry ability and mathematics performance had been greatly improved (Li, 2017). In teaching "University Physics", Lai Zhixin carried out the mixed teaching practice based on the Rain Classroom platform, analyzed its learning effect, and concluded that Rain Classroom, a new type of intelligent teaching tool, is helpful to teaching (Lai, 2018). Fu Rong used the Lanmoyun class platform to conduct practical research on blended learning in the "Tourism Store Reception" course in the secondary vocational school—student satisfaction with learning (Fu, 2019). Liu Ping uses the UMU platform as an additional tool for blended teaching in middle school physics. After investigation, it is found that most students think the practical teaching mode helps improve learning efficiency (Liu, 2020). Yu Hongtao investigated and researched the online and offline hybrid teaching modes. The research shows: "The online and offline hybrid teaching is conducive to improving students' learning interest and ability, and the overall teaching effect is good. However, some things could still be improved with this new teaching mode. problem

(Yu, 2017).

2.2.3.3 Influencing factors of blended teaching

The influencing factors of blended teaching are the basis and core of research on blended teaching. Xie Xiaoshan and Zhu Zulin believe that: "Factors such as teachers' teaching ability, teaching method, academic level, and teaching attitude play a vital role in the effect of online and offline blended teaching; student learning is a problem that cannot be ignored in the implementation of blended teaching; Teaching support such as classroom teaching, course design, and online teaching will also have an impact on the results of blended teaching (Xie & Zhu, 2012)." Bo Scholars such as Chloe Anthony believe that supportive factors, attitudes, learning styles, satisfaction, course management, and ease of use positively predict learners' and faculty's perceptions of adopting blended teaching. Satisfaction with blended teaching largely determines the effect of blended teaching. Therefore, the influencing factors of blended teaching satisfaction are also the factors of the blended teaching effect (Cao, 2020). Liu Weitong and Wang Xiaoxiao "From the perspective of learners, they put forward a hypothetical model of influencing factors of mixed teaching satisfaction, and verified that the degree of interaction and learning achievement could directly and positively affect satisfaction; The intermediary role of, indirectly positively affects teaching satisfaction; the degree of influence of the four factors of interaction, individual characteristics, learning environment and learning achievement on teaching satisfaction is from strong to weak (Liu & Wang, 2019). "

To sum up, although China's research on blended teaching started late, it has gradually transitioned from the theoretical level to applied research. For the research on the blended teaching mode, the research is mainly carried out from two aspects: one is to focus on the research on the connotation of blended teaching, combining the advantages of traditional offline face-to-face teaching and digital online learning and focusing on the application effect of teaching; It is to apply the blended teaching mode to the curriculum practice in many fields such as higher vocational colleges, and evaluate the advantages and disadvantages of the blended teaching mode through the application effect, and improve the application research of relevant theories in specific courses. The author hopes that through the mixed teaching research of the "Packaging Design" course of advertising major in higher vocational colleges, the main problems existing in the teaching of the course, the factors that affect the learning effect and their differences are discussed. The corresponding optimization measures are put forward in order to improve the teaching quality.

2.3 Theory of Reviews

2.3.1 Constructivist Learning Theory

Piaget first put forward the constructivist learning theory. The core of this theory is that learning is the process by which learners actively construct knowledge. He

believes that knowledge is not instilled in students by teachers but acquired by students through active construction by using existing knowledge and experience. Yes, teachers can play the role of external guidance in this process (Peng, 2002). Therefore, students' subjective status should be fully respected in teaching activities, and students' autonomy and subjective initiative should be emphasized. Constructivists emphasize the initiative, sociality, and situational nature of learning and put forward many new insights into learning and teaching (Du, 2013). In the teaching process, teachers should allow students to construct knowledge and form knowledge about learning actively. A deep understanding of oneself, rather than passive indoctrination.

Constructivism theory promotes the development of packaging design course theory and practice. For blended teaching, the teaching environment has changed, which means that teachers must deeply understand how to make appropriate changes in teaching design to adapt to blended teaching. Gilly Salmon, a scholar in the European distance education field, once proposed a "five-stage" model of online learning, including the stage of visiting courses and stimulating learning motivation, the stage of forming an online learning community, the stage of information exchange, the stage of knowledge construction, and the stage of development (Gao, 2018). Before the official implementation of blended teaching, teachers should first analyze the learning characteristics of students, course objectives and platform functions and then design the online teaching link of blended teaching. In the stage of online teaching, teachers should use the teaching platform to create a suitable environment for students, such as designing and organizing relevant learning resources and activities to promote students' learning interests and motivation so that students can fully communicate with teachers and classmates online, and finally achieve knowledge construction and capacity building. Teachers should make full use of blended teaching to actively follow up on students' learning status and give appropriate learning guidance promptly so that students have a broader platform to communicate with teachers in-depth and promote students to grasp better the learning content (Leng, Guo & Zhong, 2018).

2.3.2 Humanistic theory

Humanistic theory is a psychological learning theory put forward in the 1960s. The outstanding representatives mainly include the famous American psychologists Marlowe and Rogers (Chen & Liu, 2020). This theory advocates treating people as a whole, advocating people-oriented, emphasizing self-realization, and emphasizing personal development. Humanistic learning theory believes that learning is an individual's active and purposeful activity, pays attention people-oriented, takes students as the main body to carry out learning, and emphasizes the individuality, naturalness, initiative and exploratory nature of students' learning (Tian & Chen, 2021). Students should discover and create knowledge in their learning, not be taught. Teachers play a correct guiding role in the learning process of students. In addition, teachers also need to pay attention to students' experience and creative ability to learn content, create a better learning environment for them, observe students' needs

promptly, adjust students' emotions, and encourage students to achieve self-breakthrough through proper guidance.Students' internal thoughts and emotional activities affect the degree of knowledge introversion, so humanistic learning theory emphasizes the development of student's personal potential and personality innovation (Jiang, 2018).

2.3.3 Mastering Learning Theory

American educator Bloom's mastery learning theory believes that most students show little difference in learning. Under the premise of providing sufficient time and support, more than 90% of students can master the required learning content (Huang, 2022). Teaching enables students to master knowledge, so teachers' views on teaching, students, and education evaluation should be correct. In terms of teaching concepts, teachers should clarify the teaching purpose and tasks before teaching design. In the teaching process, the learning process is the content that teachers focus on; timely feedback, correction, and evaluation should be made, and teaching should be adjusted appropriately according to the student's mastery of knowledge. In terms of students' outlook, teachers should have expectations for students' potential, believe that most students can master the teaching content, and at the same time maintain and enhance students' learning motivation and sense of self-efficacy. From the perspective of educational evaluation, teachers should make it clear that the ultimate goal of teaching is not to divide students into grades but the process of imparting knowledge and cultivating abilities. At each stage of teaching implementation, teachers should flexibly use a variety of evaluation methods to examine the degree to which students have mastered the learning content, including result evaluation and process evaluation (Zhang, 2022).

2.4 Research Relevant

Constructivism theory pays special attention to being student-centred, emphasizing that students actively construct their cognitive structure. It also believes that students' learning activities must actively explore and discover new knowledge based on the existing cognitive structure. Understand new knowledge and give reasonable explanations for new knowledge in terms of cognitive structure, and construct your understanding of new knowledge in the brain to digest and absorb new knowledge (Cao, 2020). Therefore, in teaching activities, we should fully respect the subject status of students and emphasize students' autonomy and subjective initiative. Constructivist learning theory attaches great importance to the contextualization of learning and advocates contextualized teaching (wang, 2022). Understanding knowledge is concrete, and combining learning and contextualization is better. Constructivist learning theory emphasizes that the essence of learning is to help oneself build the relevance of the original learning experience through active learning under the guidance of teachers and related technical guidance to learn new knowledge. Online learning resources are rich in teaching resources, such as teaching videos, excellent design cases and other multi-dimensional combinations of teaching

scenarios to enhance learning interest and improve students' ability to understand theoretical knowledge, laying a solid theoretical foundation for professional practice.

Humanism emphasizes students' self-realization in the learning process, emphasizing students' meaningful learning and subject status. The concept of online independent learning advocated by the blended teaching model is the most direct embodiment of humanism. In this study, when conducting blended teaching, teachers use online learning platforms to provide students with various learning resources, allowing students to choose appropriate resources for personalized learning independently. This teaching mode is in line with the student-centred learning theory of humanism. The thinking of the students has fully exerted the subjectivity of the students. In the teaching process, learn to appreciate education, encourage students to overcome learning difficulties, provide personalized guidance to students' problems, answer questions after class, help students solve problems left in class in time, and strengthen communication between teachers and students (Zuo, 2021). Humanistic learning theory advocates guided teaching, so teachers are required to play a "leading" role here, advocate that teachers need to pay attention to the individual cognitive levels of different students in the teaching process, and encourage teachers to use teaching methods that can stimulate students' interest in learning and cultivate students' initiative—diverse teaching modes (Gao, 2021). Through the teaching mode suitable for students, students' innovative thinking is cultivated, and students are guided to learn independently to realize the teaching value. Vocational students are generally not enthusiastic about learning interests but are keen to accept new things. The purpose of humanistic learning theory is to put people first and encourage teaching to integrate students' emotions. Integrating students' interests and hobbies into learning will make learning more engaging and help improve learning effectiveness. Therefore, higher vocational teachers should use information technology to teach and apply blended teaching to carry out diversified teaching. Use Internet technology to assist teaching so as to stimulate students' interest in learning, subtly improve students' spontaneity and initiative, and truly realize self-driving (Chen, 2020).

The guiding role of mastering learning theory for blended teaching is as follows. First, online teaching in blended teaching broadens the time and space for students to learn. Teachers should provide students with sufficient support and focus on the whole learning process. Implementing supervision, feedback, and evaluation can accurately understand the students' learning mastery (Wei, 2023). Second, online and offline teaching should not be separated but should complement each other. Therefore, teachers should pay attention to the coordination of online and offline teaching when designing teaching so that students can feel the difference between online and offline teaching. The teaching purpose and tasks of the following teaching are consistent. Students should be made clear about the teaching tasks of each lesson and encouraged to complete them. Finally, teachers use different assessment methods at each stage of instruction to judge students' mastery (Fei, 2019).

2.5 Research Framework

The theoretical basis of this study is mainly constructivism theory, humanism theory, and mastery learning theory. The school where the author works is selected as the research object to study the implementation of blended teaching in the advertising professional packaging course. Through the statistical analysis of the data collected from student questionnaires and teacher interviews, the problems in the practical application of blended teaching are discussed, and the key factors that affect the learning effect of packaging design courses are further analyzed (Li, 2022). According to the shortcomings of teachers in the application of blended teaching, It proposes solutions to the degree of influence of blended teaching and different links. It promotes professional advertising teachers to better use blended teaching in packaging design courses to carry out teaching. The specific research framework is shown in Figure 2-3:
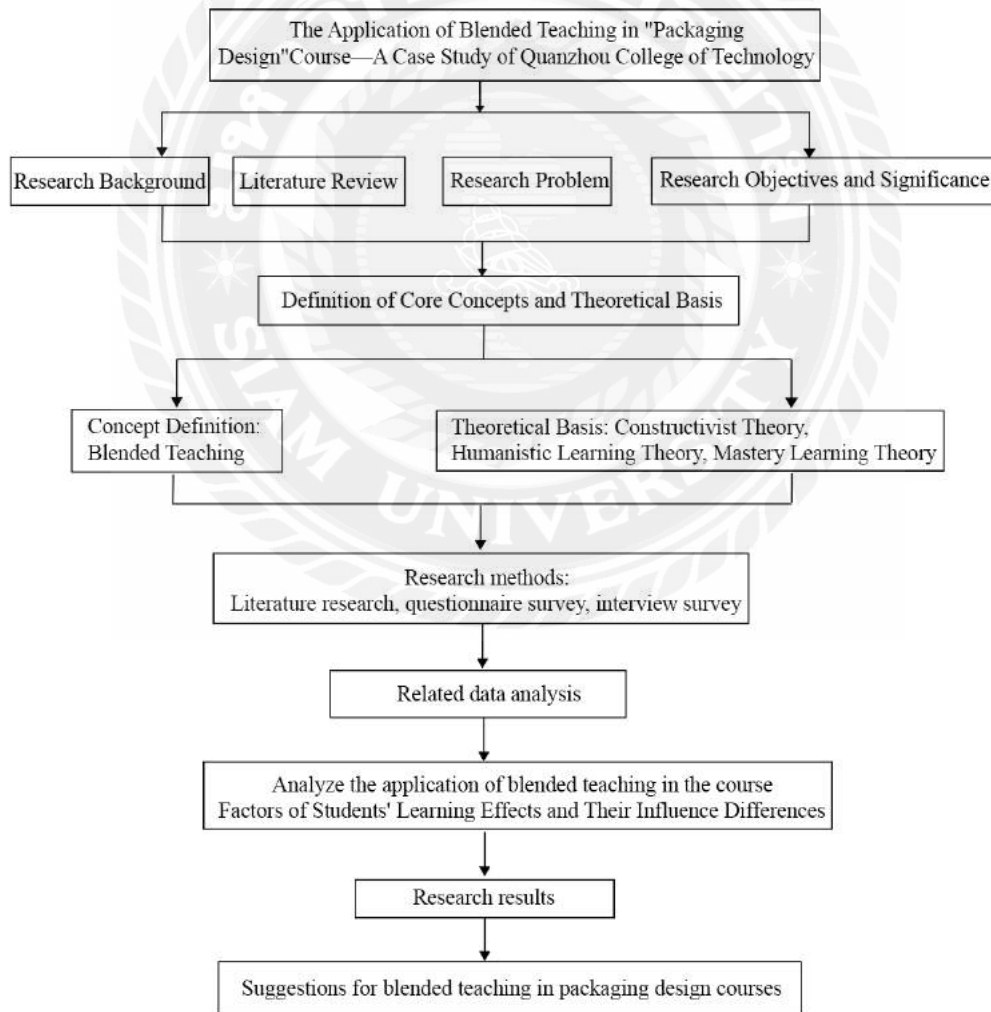
Figure 2-3 Research Framework

2.6 Terms and Definition Used in This Study

2.6.1 Higher Vocational Colleges

The "Vocational Education Law of the People's Republic of China" clearly states that vocational education is an integral part of national education and a meaningful way to promote economic and social development and employment. Vocational colleges refer to higher vocational colleges, specifically higher vocational colleges and junior colleges (Guan, 2022). Higher vocational colleges mainly cultivate applied talents centred on practical ability, professional quality, and professional skills, covering many fields, such as business management, computer application, design art, and medical technology. Compared with ordinary undergraduate colleges, higher vocational colleges pay more attention to cultivating vocational skills and improving practical ability.

Higher vocational colleges' characteristic is cultivating all kinds of talents needed by society, and its main feature is reflected in the word "profession". In recent years, China has promulgated several educational documents to focus on higher vocational education, continuously promote improving the teaching quality of higher vocational education, and attach importance to the all-around development of professional and technical talents (Han, 2022). Moreover, vigorously support the development of higher vocational colleges in all aspects. The school where the author works is a private full-time general, junior college approved by the People's Government and filed by the Ministry of Education. It is a construction unit of the "Double High Program", a model modern vocational school, and a case of innovation and development of colleges and universities for the 40th anniversary of the Ministry of Education's reform and opening up. Schools, the Ministry of Education's first batch of 1+X certificate system pilot institutions, and national high-skilled talent training bases. In addition, the school actively implements vocational education reform, so the investigation and research conducted in this school have a certain representativeness.

2.6.2 Overview of the course "Packaging Design"

As a core professional course in visual communication, the packaging design course plays a vital role in graphic design. With the continuous development of the commodity economy, the role of packaging in realising commodity value has gradually become prominent (Long, 2019) in product production, circulation, sales, consumption, etc. Packaging not only plays the role of protection and carrying but also plays the role of beautification and publicity. This requires students to have a specific modelling foundation. Based on mastering aesthetic knowledge, packaging The study of design courses mainly includes the theoretical basis of packaging design, understanding the development history of packaging design, and a comprehensive grasp of packaging materials, equipment, techniques, decoration, etc. In order to improve product sales, it is necessary to master the necessary marketing and consumer psychology and other interdisciplinary knowledge to achieve the real teaching purpose of packaging design (Wang, 2021). This course also has more learning resources inside and outside the classroom, which is conducive to the smooth development of blended teaching.

Chapter 3 Research Methodology

3.1 Introduction

The research in this paper mainly adopts mixed research methods to obtain accurate research results. First, the author sorts out relevant literature, analyzes the research status of blended teaching, clarifies the purpose and significance of this research, chooses appropriate research methods, and clarifies research ideas. Secondly, at present, many teachers in the major of advertising design in higher vocational colleges have implemented blended teaching and actively use various teaching platforms for blended teaching, including learning platforms such as Chaoxing Xuetong and Questionnaire Star. To deeply understand the specific situation of the application of blended teaching in the packaging design course in the school where the author works, a student questionnaire and teacher and student interviews were designed to investigate the problems existing in the implementation of blended teaching in the packaging design course. Finally, some suggestions are put forward to solve the problem of teachers' application of blended teaching in packaging design courses and the influence of different links of blended teaching on the learning effect.

3.2 Research Design

This research takes the application status of blended teaching in the "Packaging Design" course in the advertising major of higher vocational colleges as the research clue. It mainly conducts research through questionnaire surveys and interviews with teachers and students. The research and design ideas of this paper are as follows:

In the first part, we use "blended teaching" as the main keyword to search for relevant literature, sort out and summarize references, sort out and clarify the concept of blended teaching and the"Packaging Design" course, and the theoretical basis of related learning.

In the second part, combining the characteristics of the students majoring in advertising in higher vocational colleges and the characteristics of the "Packaging Design" course, the main research objects are the students and teachers of the J school where the author works. The primary forms are questionnaires and interviews.

Based on the statistical analysis of the questionnaire and interview results, the third part understands the application of blended teaching in the "Packaging Design" course of advertising majors in higher vocational colleges. Through the questionnaire survey, the survey data was processed and analyzed using SPSSAU, an online SPSS intelligent analysis software. Moreover, related research was carried out on the student's evaluation of the application status of the "Packaging Design" course under blended teaching and the influencing factors of the learning effect. Then, I conducted in-depth exchanges with the teachers and students of the school's advertising design

major based on the questions obtained. I further understood their current views on course learning and suggestions for blended teaching.

The fourth part, based on the data results, summarizes and analyzes the shortcomings of the application of blended teaching in the course "Packaging Design", analyzes the influencing factors of students' learning effects, and proposes an optimal blend for the shortcomings of teachers' application of blended teaching in the course "Packaging Design" Countermeasures and suggestions for improving the effect of blended teaching, to improve the teaching effect of "Packaging Design" course under blended teaching.

3.3 Hypothesis

HI: Under the blended teaching mode, students' autonomous enthusiasm has a significant positive impact on their learning interests.

H2: Under the blended teaching mode, the degree of curriculum integration has a significant positive impact on students' learning effects.

H3: In the blended teaching mode, teacher professionalism has a significant positive impact on student learning.

3.4 Research Methods

3.4.1 Literature Research

Literature research is a commonly used research method in academic research. Literature research plays a vital role in the feasibility analysis of articles. It is a research method of scientific cognition to select helpful information by collecting and analyzing relevant literature materials. After determining the research topic and purpose of this study, the relevant references are sorted out through literature review, collection, statistics, analysis, and other methods, and the literature is consulted with research ideas and questions to lay the theoretical foundation of the research. The author also conducts literature searches from the authoritative academic website CNKI in terms of "blended teaching", "packaging design", and multiple aspects to understand the research results of predecessors and clearly grasps the online and offline mix by sorting and summarizing. The concept, implementation, effect and possible influencing factors of blended teaching mode provide the basis and premise for further research on blended teaching mode (Cao, 2020).

3.4.2 Questionnaire survey

A questionnaire survey refers to investigators' controlled measurement of research questions to obtain reliable information. To understand and analyze the specific situation of the application of blended teaching in the packaging design

course of the advertising design major in higher vocational colleges, a questionnaire was distributed to the students in the school where the author works, mainly from the students' evaluation of blended teaching and the influencing factors of learning interest. Conduct research. After processing and analyzing the recycled data, we found the problems existing in the school's application of blended teaching in the "Packaging Design" course and put forward optimization suggestions to promote blended teaching to play a more significant role in the teaching effect of the packaging design course.

3.4.2.1 Survey purpose

In order to understand the specific situation of the application of blended teaching in the packaging design course in the author's school, further explore its influencing factors, investigate the problems existing in the application of blended teaching in the packaging design course, and deeply analyze the factors and influences of students' learning effect Based on these differences, feasible optimization countermeasures are put forward to promote hybrid teaching to achieve better results in packaging design processing courses, and to promote the goal of cultivating practical skills in advertising design majors in vocational colleges, so this investigation is carried out.

3.4.2.2 Survey object

The school where the author works is a private full-time general college approved by the People's Government and filed by the Ministry of Education. It is a construction unit of the "Double High Program", a model modern vocational college, and a case of innovation and development of colleges and universities for the 40th anniversary of the Ministry of Education's reform and opening. Schools, the Ministry of Education's first batch of 1+X certificate system pilot institutions, and national high-skilled talent training bases (Zeng, 2018).In addition, the school actively implements vocational education reform, so the investigation and research conducted in this school have a certain representativeness. In addition, the advertising art design major mainly cultivates innovative technical talents in graphic design. Our school has permanently attached great importance to developing the advertising design major, and the training facilities for this major are relatively well-developed. Studying the development trend of advertising design teaching in this school will help promote the better development of advertising majors, so this school is chosen to study the application of blended teaching in the packaging design course of advertising majors.

In order to investigate the application of blended teaching in the course of packaging design, this survey is mainly aimed at the students who have studied the course of packaging design in the advertising design major of this school and the teachers of the course. The survey mainly focuses on sophomore and junior students, among which 121 are sophomores, 79 are juniors, and the total number is 200.

3.4.2.3 Design of questionnaire survey

The primary research tool of this study is the questionnaire. To truly understand the current situation of the "Packaging Design" course in blended teaching, by investigating the student groups who have already learned this course, further explore it is influencing factors to ensure the authenticity of the questionnaire and rationality. To ensure the scientificity and validity of the questionnaire, this study is also based on the whole reading and reference of theoretical literature research related to blended teaching. It solicits the opinions and suggestions of relevant scholars and experts, combined with discussions and exchanges with the teachers of this course. It preliminarily determines the dimensions and measurement indicators of the questionnaire. The questionnaire is compiled with the characteristics of the "Packaging Design" course of advertising major in higher vocational education and the characteristics of students. The questionnaire consists of three parts, with a total of 24 questions. As shown in Table Table 3-1.

Table 3-1 Dimension Design of Student Questionnaire Survey

Questionnaire dimensions	Questionnaire questions	Question number
Basic situation	Gender	1
	Grade	2
Evaluation of the application status of blended teaching	My opinion on the blended teaching model compared with the traditional face-to-face teaching model.	3
	The main problems encountered in the learningprocess of blended teaching.	4
	Mastery of "Packaging. Design" course knowledge.	5
	Interest in participation in packaging design projects.	6
	Improvement of Design Level Capabilities.	7
A Survey of Factors Affecting Learning Effects	Self-motivation	8-10
	Consistency of course content	11-13
	Teacher professionalism	14-17
	Learning interest	18-20
	Learning satisfaction	21-24

The first part is the basic information about students, including gender and grade.

The second part evaluates the application status of blended teaching, including five topics, mainly to understand students' evaluation and learning situation of blended teaching. Specifically, it includes the difficulties encountered in the learning process, the mastery of knowledge, the interest in the course practice, and the improvement of the ability level.

The third part is the influencing factors of course learning interest, which consists of 5 sub-scales, including autonomous enthusiasm, consistency of course content, teacher professionalism, learning interest, and learning satisfaction. The scale is in the form of a Likert five-point scale, and the numbers in the Likert five-point scale represent the degree of conformity between the corresponding measurement index and the students' judgment and evaluation of the current situation. The degree of agreement with the status quo increases from 1 "strongly disagree" to 5 "strongly agree". One means "strongly disagree", two means "disagree", three means "neither", four means "agree", and five means "strongly agree". The survey scale is divided into five dimensions. To ensure the rigour of the research, the author will also explain the dimensional design of the questionnaire and its reasons.

Autonomous enthusiasm refers to students' independence, initiative, enthusiasm and self-awareness in learning, thinking, inquiry and innovation. This kind of independent enthusiasm is manifested in students' ability to think about problems in learning actively, can self-management and learning, be able to ask questions, solve problems and innovate in the learning process, actively participate in teaching activities, and consciously contributing to personal development and social progress. And work hard. It can be said that students' autonomous enthusiasm is a problem that cannot be ignored in the process of blended teaching practice (Wang, 2018). In this study, students' self-motivation means that students can take the initiative to preview the relevant course content before class. After class, they will actively review and summarize the knowledge points they have learned and actively complete the homework assigned by the teacher. During the process, students are not supervised by teachers and parents; they learn independently, actively and actively.

Blended teaching is an organic integration of online and offline learning, so content consistency is vital in blended teaching (Lu, Xie, Shi & Xiong, 2018). Therefore, in the teaching process, we can understand the consistency of course content as the content of online learning and the content of offline teaching are interrelated, without contradiction, conflict and disconnection; The learning objectives of offline courses are the same; the study time of online courses and offline courses are reasonable. So that students can better understand the connection between online and offline knowledge in this course, cultivate their ability to master the knowledge and solve problems, and improve the practicality and attractiveness of the course.

Teachers' professionalism refers to their professional knowledge, skills, and accomplishments, as well as their professional abilities in education, teaching, management, and research. It is a necessary standard to measure teachers' education, teaching ability, and professional level, and it is the basis and guarantees for teachers to engage in education and teaching work. In this study, teacher professionalism will be used as an essential dimension in investigating the current situation of blended teaching and its influencing factors. Specifically, teacher professionalism is reflected in whether the explanation of course content is easy to understand, whether online and offline courses, whether The study plan and pace are reasonable and controllable; whether the assessment method of the course is reasonable, and whether students' problems can be solved in time before and after class.

In blended teaching, students' interest in learning is significant. Blended teaching combines the advantages of traditional and online education, enabling students to have a broader and more diverse learning experience. Students' interest and motivation are the driving force of learning; if students are interested in what they are learning, they will be more actively engaged in learning (Ci, 2021). At the same time, blended teaching also requires students to have a particular ability of independent learning, to find resources and learn independently, and maintaining interest in learning can help students better develop their independent learning ability. Therefore, teachers should stimulate and maintain students' interest in learning by guiding students, diversifying learning methods and strengthening learning outcomes in blended teaching.

Student learning satisfaction has a profound impact on promoting the improvement of teaching and service quality (Li, Kang & Chen, 2014). Students' learning satisfaction significantly affects the promotion of blended teaching. Specifically, learning satisfaction can stimulate learners' learning interest and enthusiasm, making them more willing to participate in blended teaching. Learning satisfaction can reflect learners' appreciation and affirmation of blended teaching, prompting them to study and master knowledge more seriously, thereby improving learning effects. Learning satisfaction can affect learners' learning decisions. If learners are satisfied with blended teaching, they will be more willing to choose this teaching method to learn. At the same time, learning satisfaction can help teachers understand students' views and feedback on blended teaching and adjust the next teaching strategy in time to improve teaching quality.

It is particularly emphasized that for students to understand better and answer the questionnaire, the author has explained the blended teaching in the introductory part and the purpose of this questionnaire survey. For the specific content of the questionnaire, see Appendix 1.

3.4.2.4 Analysis of the testing situation of the questionnaire survey

This questionnaire survey will start on November 1, 2022, and end on December 15, 2022. Two hundred online questionnaires will be distributed to students in the school where the author works and who have completed the "Packaging Design" course under blended teaching. Looking back at the number of questionnaires, There are 176 copies, the number of effective questionnaires is 176 points, and the return rate and effective rate of questionnaires are 88%.

The first part of this questionnaire is the basic information of the students. Among the respondents, more than 50% of the grades are "sophomores". The proportion of sophomore students is 52.84%, and that of junior students is 47.16%. Boys account for 49.43%, and girls account for 50.57%. The specific data is shown in Table 3-2.

Table 3-2 Basic Profile of Survey Respondents

Name	Question value	Frequency	Percentage
Gender	Male	87	49.43%
	Female	89	50.57%
Grade	Sophomore	93	52.84%
	Junior	83	47.16%
Total		176	100.0

Autonomous enthusiasm refers to students' independence, initiative, enthusiasm, and self-awareness in learning, thinking, inquiry, and innovation. This kind of independent enthusiasm is manifested in students' ability to think about problems in learning actively, have the ability of self-management and learning, be able to ask questions, solve problems and innovate in the learning process, actively participate in teaching activities and consciously contribute to personal development and social progress. And work hard. It can be said that students' autonomous enthusiasm is a problem that cannot be ignored in the process of blended teaching practice (Wang, 2018). In this study, students' self-motivation means that students can take the initiative to preview the relevant course content before class. After class, they will actively review and summarize the knowledge points they have learned and actively complete the homework assigned by the teacher. During the process, students are not supervised by teachers and parents; they learn independently, actively, and actively.

Blended teaching is an organic integration of online and offline learning, so

course integration is vital in blended teaching (Lu, Xie, Shi & Xiong, 2018). Therefore, in the teaching process, we can understand the integration of courses as the content of online learning and offline teaching are interrelated, without contradiction, conflict and disconnection; the learning objectives of online courses and offline courses. The objectives of the course study are the same; the study time of the online course and the study time of the offline course is reasonable. So that students can better understand the connection between online and offline knowledge in this course, cultivate their ability to master the knowledge and solve problems, and improve the practicality and attractiveness of the course.

Teachers' professionalism refers to the professional knowledge, skills, and accomplishments of teachers, as well as their professional abilities in education, teaching, management, and research. It can be said that it is an important standard to measure teachers' education and teaching ability and professional level, and it is the basis and guarantee for teachers to engage in education and teaching work. In this study, teacher professionalism will be used as an important dimension in the investigation of the current situation of blended teaching and its influencing factors. Specifically, teacher professionalism is reflected in whether the explanation of course content is easy to understand; online and offline courses The study plan and pace are reasonable and controllable; whether the assessment method of the course is reasonable, and whether students' problems can be solved in time before and after class.

In blended teaching, students' interest in learning is very important. Blended teaching combines the advantages of traditional teaching and online education, enabling students to have a broader and more diverse learning experience. Students' interest and motivation are the driving force of learning, if students are interested in what they are learning, they will be more actively engaged in learning (Ci, 2021). At the same time, blended teaching also requires students to have a certain ability of independent learning, to be able to find resources and learn independently, and maintaining interest in learning can also help students better develop their ability of independent learning. Therefore, teachers should stimulate and maintain students' interest in learning by guiding students, diversifying learning methods and strengthening learning outcomes in blended teaching.

Students learning satisfaction significantly affects the promotion of blended teaching (Li, Kang & Chen, 2014). Specifically, learning satisfaction can stimulate learners' learning interest and enthusiasm, making them more willing to participate in blended teaching. Learning satisfaction can reflect learners' appreciation and affirmation of blended teaching, prompting them to study and master knowledge more seriously, thereby improving learning effects. Learning satisfaction can affect learners' learning decisions. If learners are satisfied with blended teaching, they will be more willing to choose this teaching method to learn. Learning satisfaction can help teachers understand students' views and feedback on blended teaching and adjust

the next teaching strategy in time to improve teaching quality.

3.4.2.5 Reliability Analysis of the Questionnaire

Reliability refers to the degree of consistency of the results when the same object is repeatedly measured by the same method. Simply put, it refers to the reliability of the measurement data (Wang, 2018). The reliability test of the scale is a crucial step to ensure that the questionnaire data is valid and reliable. Generally, Cronbach's α coefficient value is used to evaluate the reliability of the questionnaire, which can truly reflect the reliability of the questionnaire.

In this study, in order to determine whether the index data obtained from the questionnaire has a certain degree of credibility and stability and whether the reliability coefficient of the analysis is within the scientific range, the author uses SPSSAU, an online SPSS intelligent analysis software, to analyze the data—process analysis. Cronbach's Alpha is used to analyze the samples of blended teaching learning evaluation and study interest-influencing factors in the questionnaire. It can be seen from Table 3-3 and Table 3-4 that the reliability coefficient value is 0.991, which is greater than 0.9, thus indicating that the reliability of the research data is of high quality.

Regarding the "alpha coefficient of deleted item", after any item is deleted, the reliability coefficient will not increase significantly, so it means that the item should not be deleted. For the "CITC value", the CITC values of the analysis items are all greater than 0.4, indicating a good correlation between the analysis items, and it also shows that the reliability level is good. In summary, the reliability coefficient value of the research data is higher than 0.9, which comprehensively indicates that the data reliability is of high quality and can be used for further analysis..

Table 3-3 Cronbach reliability analysis of the student questionnaires

Questionnaire	Sample Capacity	Cronbach α Coefficient
Student Questionnaire	176	0.991

Table 3-4 Questionnaire Reliability Test Results

Question number	Corrected Total Correlation (CITC)	The α coefficient of the term deleted	Cronbachα coefficient
Q3	0.850	0.991	
Q4	0.892	0.990	
Q5	0.919	0.990	
Q6	0.905	0.990	
Q7	0.909	0.990	
Q8	0.905	0.990	
Q9	0.884	0.990	
Q10	0.895	0.990	
Q11	0.903	0.990	
Q12	0.912	0.990	0.991
Q13	0.927	0.990	
Q14	0.929	0.990	
Q15	0.905	0.990	
Q16	0.895	0.990	
Q17	0.913	0.990	
Q18	0.916	0.990	
Q19	0.923	0.990	
Q20	0.910	0.990	
Standardized Cronbach α coefficient: 0.991			

3.4.2.6 Validity Analysis of the Questionnaire

The validity of the questionnaire refers to the degree of relationship between the measured content and the actual situation, that is, whether the questionnaire can accurately and reliably measure the expected characteristics or variables. In this study, to verify the validity of the content of the questionnaire, the author mainly used Bartlett's and KMO (Kaiser-Meyer-Olkin) to develop the validity of the scale decibels on the learning evaluation of blended teaching and the influencing factors of learning interest in the questionnaire. Test. Use KMO and Bartlett test for validity verification, as can be seen from Table 3-5, the KMO value is 0.969; the KMO value is more significant than 0.8, the SIG value is 0.000, less than 0.01, the research data is very suitable for extracting information (from the side, the validity is excellent).

Table 3-5 KMO and Bartlett's test

KMO value		0.969
Bartlett Sphericity test	Approximate chi-square	6607.475
	df	231
	Pvalue	0.000

3.4.3 Interview method

Interview research refers to the researchers talking with the interviewees through questions and answers according to the pre-designed interview outline, recording the interviewees' answers to each interview item, and finally analyzing and synthesizing through transcription, coding, data analysis, etc. The research method was used to form the research conclusions. According to the needs of the investigation and research on the current situation of the implementation of online and online blended education mode, this study designed the interview outline and conducted interviews with teachers and students to understand further the experience and feelings of teachers and students about the blended teaching mode of a packaging design course, and to understand their perception of The attitudes and opinions of the blended teaching mode provide more abundant and reliable information for in-depth analysis of problems and suggestions for countermeasures.

3.4.3.1 Teacher interview outline design and implementation

The teacher interview outline is designed by reading the relevant literature, according to the author's teaching experience and the purpose of the survey. The author conducted three informal teacher interviews during the teaching process and revised the interview outline according to the suggestions of advertising teachers. Finally, the teacher interviews were divided into two parts, comprising ten items. The first part is to understand the educational background, teaching experience, and major and professional title of the teacher, with a total of 4 items. The second part mainly understands the current application of blended teaching in the "Packaging Design" course for advertising design majors. Difficulties encountered in designing blended teaching; question 5, understand the difficulties teachers encounter in implementing blended teaching; question 6, understand teachers' optimization suggestions for blended teaching. The interviewees were three teachers of the advertising professional packaging design course. The interviews started from November 15, 2022, to November 20, 2022. Before the formal interview, the teachers were assured that the interview content would be kept confidential, allowing the teachers to express themselves. The most authentic feelings in teaching, the primary content of the teacher interview outline is as follows Table 3-6.

Table 3-6 Teacher Interview Outline

Serial number	Interview items
1	What do you think is the greatest value of using blended teaching inhigher vocational courses?
2	What do you think is the effect of implementing blended teaching？
3	What do you think are the advantages and disadvantages of blendedteaching compared with traditional teaching methods?
4	What do you think should be paid attention to in teaching designwhen implementing blended teaching?
5	What difficulties did you encounter during the implementation of blended teaching?
6	Please make some suggestions on the application of blended teaching

3.4.3.2 Design and implementation of student interview outline

By reading relevant literature, the student interview outline is designed according to the author's teaching experience and the purpose of the survey. The summarized student interview outline consists of two parts. The first part investigates the grade and gender of the students, with a total of 6 items. The second part mainly understands the feelings of advertising majors on using blended teaching in the course, with eight items. The interview content of students mainly includes their evaluation of blended teaching, their preference for teaching resources and activities designed online in blended teaching, whether they have encountered difficulties in learning blended teaching, and their feelings about the interaction of blended teaching and recommendations for blended instruction. The student interviews started and ended from November 10, 2021, to November 15, 2021. The interviewees were mainly twenty students of different grades majoring in advertising at the author's school. The interview lasted 30 minutes and mainly used the time after class to communicate face-to-face with the students. Before the interview, the students were informed that the interview was mainly used for graduation design, and they promised to keep the interview content confidential so that the students could genuinely express their inner feelings. During the interview, students were mainly asked questions about the items in the outline and provided relevant guidance. During the process, recordings and notes are mainly used to record. Finally, the relevant interview content is sorted out. The essential content of the student interview outline is shown in Table 3-7 below.

Table 3-7 Student Interview Outline

Serial number	Interview items
1	When studying "Packaging Design", which piece of knowledge do you think is the most difficult to understand?
2	Compared with traditional learning methods and blended teaching methods, which teaching method do you prefer?
3	Do you think resources on online platforms can increase interest in learning?
4	Do you think the activities on the online platform are interesting? What activities do you enjoy?
5	What do you think of the teacher-student and student-student interaction under the blended teaching mode? What problems do you think there are still existing?
6	Do you think it is reasonable for teachers to incorporate the experience value on the online teaching platform into the course assessment results?
7	How do you think blended teaching is helpful for learning "Packaging Design"?
8	What do you see as areas for improvement in blended instruction?

Chapter 4 Result of the Study

4.1 Introduction

Blended teaching is a teaching mode that combines traditional classroom teaching and online learning. Implementing blended teaching requires appropriate technical support, including online learning platforms, teaching software, etc. Teachers need to have the ability to use these technologies. Secondly, teachers' confidence in their ability, skills, and experience in blended teaching will affect the teaching effect. Teachers need to adapt to the new teaching environment and be able to meet students' different learning needs and teaching goals as much as possible to ensure curriculum quality. Blended teaching emphasizes students as the main body, so students' learning interests and technical abilities will also affect the effect of blended teaching. As a professional teacher, it is necessary to guide students to establish a correct learning attitude. This chapter mainly sorts out and analyzes the recovered data, including student questionnaires and interviews with teachers and students; sorts out the recovered data, further analyzes the application of blended teaching in the advertising professional packaging design course, And explores the factors that affect the students' learning effect and their differences.

4.2 Analysis of questionnaire results

4.2.1 Students' evaluation of the application status of blended teaching in the "Packaging Design" course

4.2.1.1 Evaluation of blended teaching of "Packaging Design" course

It can be seen from Figure 4-1, that compared with the traditional face-to-face teaching model, more students chose "satisfied", or 38.64%; 26.14% thought they were delighted; 6.82% were dissatisfied. Therefore, it can be seen that more than 60% of the students are satisfied with the learning views of mixed teaching, which shows that the effectiveness of mixed teaching in teaching practice has been recognized by students to some extent and has a specific effect on promoting students learning effect and learning interest.
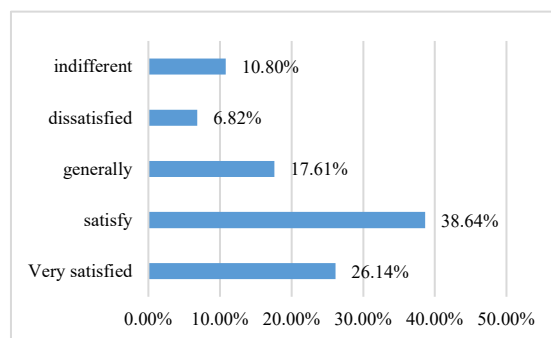
Figure 4-1 Comparison of blended teaching mode and traditional teaching mode

4.2.1.2 Application of blended teaching in the course of "Packaging Design"

Figure 4-2 reflects the students' problems in the packaging design course. 35.8% of the students think that the teaching mode is single, which shows that how to optimize and improve the teaching mode still needs further exploration; 25% of the students are not satisfied with the learning resources on the platform; It can be seen that the lack of teaching resources set by teachers on the online teaching platform will affect students' enthusiasm for learning; 18.75% of students feel that the course knowledge is too complicated, and 10.8% of students feel that they have not combined theoretical knowledge with practice. In applying the traditional teaching mode, teachers should strengthen the reform of theoretical and practical teaching and improve the application ability of students' knowledge; 9.66% of the students encountered difficulties and did not know how to solve them—the phenomenon of communication. Therefore, teachers should take more reasonable teaching measures in the process of blended teaching to help students better solve the problems encountered in learning.
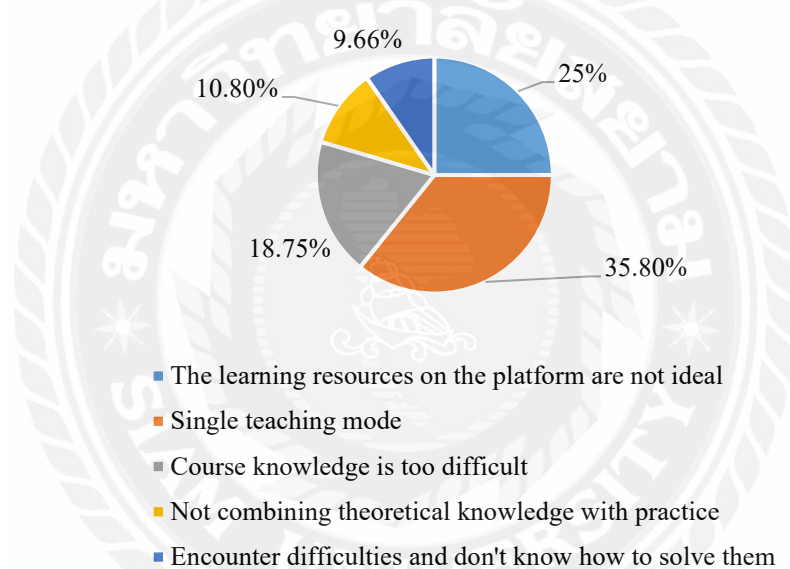
Figure 4-2 The main problems encountered in the learning process of blended teaching

From Figure 4-3, it can be seen that the overall situation of students' mastery of course knowledge is relatively good under the blended teaching method, and more than 60% of students are relatively satisfied with their knowledge mastery. Among them, 39.77% of the students think that they have mastered the knowledge, and 21.59% of the students think that they have a good grasp of the knowledge. However, 19.32% of the students felt half mastered, and 9.66% of the students felt not mastered. Students mastery of the course is also closely related to the teacher's teaching to a certain extent. Teachers should ensure that students have an effective learning experience.
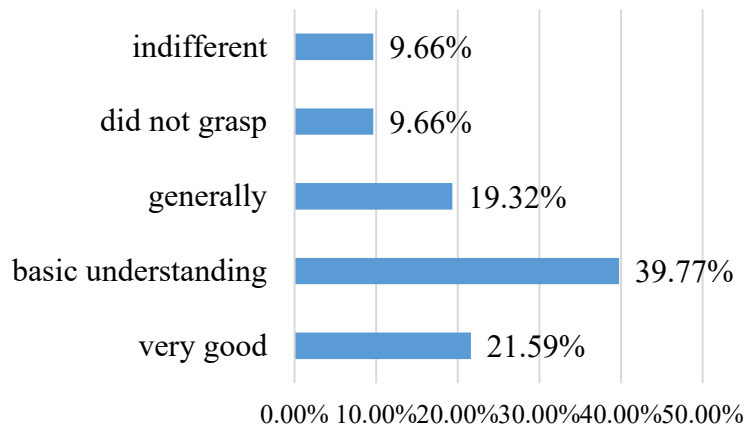
Figure 4-3 Through blended teaching, mastery of "Packaging Design" course knowledge

From Figure 4-4, it can be seen that through blended teaching, 35.23% of the students think that they are interested in the packaging design project, 22.73% of the students think that they are very interested, 19.32% of the students think that the interest is average, and 12.5% of the students think that not interested. The course "Packaging Design" is very practical, and it is necessary to design and produce relevant works according to the needs of packaging projects. Therefore, in blended teaching, teachers should increase students' interest in participating in packaging design projects, thereby enhancing their learning efficiency and quality .
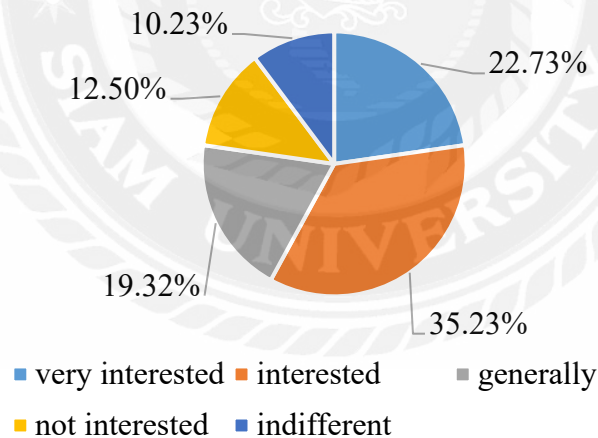
Figure 4-4 Participation in packaging design projects through blended teaching

It can be seen from Figure 4-5 that more than 60% of the students have improved their design ability. Among them, 23.86% of the students felt that they were very consistent, and 36.36% of the students felt that they were very consistent. 20.45% of the students felt that it was average, 8.52% of the students felt that it did not meet the requirements, and 10.80% of the students felt that it did not meet the requirements at all. On the one hand, this shows that blended teaching has a certain promotion effect on the improvement of students' professional skills; To develop a reasonable learning plan according to the needs of students, so that more students' design ability can be

improved.
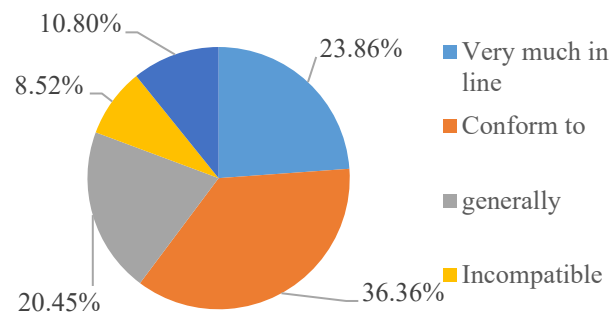
Figure 4-5 Overall Evaluation of Packaging Design Courses

According to the analysis of the above student questionnaires, we know the application status of blended teaching, mainly from the course learning situation and the learning evaluation of blended teaching to summarize and analyze. According to the survey data, the learning evaluation of blended teaching in the course is generally good. At present, students majoring in advertising in higher vocational colleges agree with the blended teaching mode, have a positive and proactive attitude towards learning, and can clearly give some subjective opinions. on the evaluation. Therefore, it can be seen that students have a certain learning interest in this teaching mode, and students' learning interest often affects the learning effect, which also plays a role in promoting their packaging design ability.

4.3.1 Analysis on the Differences of Factors Affecting Students' Learning Effects

To analyze the difference of factors affecting students' learning interest in the "Packaging Design" course under the blended teaching mode, the author uses SPSSAU, an online SPSS intelligent analysis software, to process and analyze the relevant data. Descriptive statistics are carried out on the five latent variables of the status quo of blended teaching, which are independent enthusiasm, consistency of course content, teacher professionalism, learning interest, and learning satisfaction, and statistical indicators such as the mean and standard deviation of each measurement indicator are obtained.

4.3.1.1 Self-motivation

In the process of blended teaching, students' autonomous enthusiasm has an important impact on the learning effect. Students' autonomous enthusiasm refers to students spontaneously generating positive learning behaviors and attitudes from the depths of their hearts, possessing a certain degree of autonomy and spontaneity, and being able to actively participate in learning, thinking, exploring, and other activities. It can enhance students' interest in learning, and make learning more active and enjoyable, thereby promoting students' ability to absorb new knowledge, innovative thinking, and explore and solve problems. Through the descriptive statistics of the three measurement indicators of learning autonomy, the frequency and percentage

data of each measurement indicator are shown in Table 4.6, and the mean and variance are shown in Table 4.7. According to the data in Table 4-6, we can know that in option A1, I think I will take the initiative to preview the relevant course content, the proportion of students who choose "conform" in the sample is the highest, which is 33.5%; in A2, I think that in the After class, I will take the initiative to review and summarize the knowledge points I have learned. The proportion of students who choose "conform" in the sample is the highest, which is 34.09%. Among the options in A3, I will actively complete the homework assigned by the teacher. The proportion of "conforming" students is the highest, which is 35.23%. The importance of student autonomy plays a key role in the learning process, promoting student initiative in learning. Students actively participate in learning, can spontaneously pay attention to and explore the issues they are interested in, and independently choose learning methods and methods, to develop the habit of active learning. Students' independent and active participation in learning helps to cultivate students' self-discipline and self-control and enhances students' self-confidence and self-affirmation. Students choose and solve problems independently, plan and achieve goals, and feel their growth and progress, thereby enhancing their sense of identity and self-confidence. Students who actively participate in learning can better master knowledge and skills, thereby improving learning efficiency.

Table 4-6 Frequency and percentage statistical table of self-directed motivation in learning

	Completely suitable	Conform	Generally	Incompatible	Very inconsistent
A1	21.59% (38)	33.52% (59)	22.73% (40)	12.50% (33)	9.66% (17)
A2	17.61% (31)	34.09% (60)	23.86% (42)	12.50% (22)	11.93% (21)
A3	24.43% (43)	35.23% (62)	18.75% (33)	10.23% (18)	11.36% (20)

According to Table 4-7, the average value and standard deviation of learning self-motivation and the mean and variance data of the statistical table, we can know that the total mean value of the students in the self-motivation options is 2.570, and the standard deviation is 1.251, indicating that the students' enthusiasm is medium level, the degree of dispersion is relatively small. Among them, the largest average is A2:I think I will take the initiative to review and summarize the knowledge points I have learned after class, which is 2.670, followed by A1: I think I will take the initiative to preview relevant course content, which is 2.551, and the smallest is A3:I will take the initiative to complete the homework assigned by the teacher, which is 2.489. That is to say, students' enthusiasm for learning before and after class is still

relatively high. These two indicators play a decisive role in students' learning knowledge in blended teaching. Reviewing reinforces what students have already learned. The preview can familiarize and understand the content to be learned in advance, which helps to better understand and memorize new knowledge, and to master knowledge more accurately, thereby improving the efficiency of learning. When students successfully master knowledge through review and preview, their self-confidence is also enhanced, so that they are more confident to meet each learning challenge. In short, students' independent enthusiasm is a necessary means for students to improve their learning efficiency and learning success. The average value of A3 is relatively the least. Therefore, teachers should pay attention to the quality of homework assigned after class and strengthen supervision of the completion of students' homework.

Table 4-7 Statistical table of the mean and standard deviation of learning self-directed enthusiasm

Topic	Sample size	Average value	Standard deviation
A1	176	2.551	1.232
A2	176	2.670	1.244
A3	176	2.489	1.278

4.3.1.2 Consistency of course content

　　Descriptive statistics are carried out on the three measurement indicators of course content consistency, and the frequency and percentage data of each measurement indicator are shown in Table 4-8, and the mean and variance are shown in Table 4-9. From the data in Table 4-8, we can know that in the options of course integration, the content of B1 online learning and the content of offline teaching are interrelated, and there are no contradictions, conflicts, or disconnections in the samples. The proportion of students who "conform" is the highest, 31.25%. The learning objectives of B2 online courses and offline courses are the same. Among the samples, the proportion of students who choose "conformity" is the highest, 33.52%. The proportion of students who choose "conforming" in the study time of the course and the study time of the offline course is the highest, which is 35.23%. Therefore, teachers should pay attention to the online and offline learning content, the reasonable distribution of learning objectives, and the connection of content during the teaching process.

Table 4-8 Course Content Consistency Frequency and Percentage Statistical

Table

	Completely suitable	Conform	Generally	Incompatible	Very inconsistent
B1	22.16% (39)	31.25% (55)	23.30% (41)	12.50% (22)	10.80% (19)
B2	27.27% (48)	33.52% (59)	15.91% (28)	13.07% (23)	10.23% (18)
B3	24.43% (43)	35.23% (62)	17.61% (31)	11.36% (20)	11.36% (20)

According to the mean value and variance data in Table 4-9, B1 has the most considerable mean value, which is 2.585, indicating that the content of online learning and offline teaching are interrelated—followed by B3, 2.500. It shows that in blended teaching, students still recognize the consistency of course content. Therefore, teachers should continuously strengthen the consistency of the curriculum to improve student's learning efficiency and interest in learning. B2 has a smaller mean of 2.455. It shows that the course's online and offline learning objectives are not well connected. Whether online or offline, it is the core and foundation of curriculum design, and it determines the knowledge, skills, and attitudes students should achieve. It is the direction and guidance of teaching activities and helps promote students' learning and development. Therefore, in this regard, teachers must ensure the consistency of learning objectives to enable students to learn better and master learning.

Table 4-9 Statistical table of course content consistency mean and standard deviation

Topic	Sample size	Average value	Standard deviation
B1	176	2.585	1.262
B2	176	2.455	1.295
B3	176	2.500	1.287

4.3.1.3 Teacher professionalism

Descriptive statistics are carried out on the three measurement indicators of teacher professionalism. Each measurement indicator's frequency and percentage data are shown in Table 4-10, and the mean and variance are shown in Table 4-11. From the data in Table 4-10, It can be learned that 59.7% of the students think that the teacher's explanation of the course content is easy to understand, 40.3% of the students cannot understand the content of the teacher's lecture well; 60.8% of the students think that the teacher's learning plan and rhythm of online and offline teaching are reasonable It is controllable, 39.2% of the students disagree with the teacher's learning plan and rhythm of online and offline teaching; 64.2% of the students agree with the teacher's assessment method, 35.8% of the students fail to approve the teacher's assessment method; 59.7% of the Students think that the teacher can solve the problems

encountered in the learning process promptly, and 40.3% of the students think that the teachers cannot solve the problems encountered in the learning process. It shows that teachers should strengthen communication with students in blended teaching so that students' learning problems can be solved and the learning effect can be ensured.

Table 4-10 Frequency and percentage statistics of teachers' professionalism

	Completely suitable	Conform	Generally	Incompatible	Very inconsistent
C1	25.00% (44)	34.66% (61)	17.61% (31)	11.36% (20)	11.36% (20)
C2	22.73% (40)	38.07% (67)	15.34% (27)	13.07% (23)	10.80% (19)
C3	25.00% (44)	39.20% (69)	12.50% (22)	11.93% (21)	11.36% (20)
C4	26.70% (47)	32.95% (58)	19.32% (34)	11.93% (21)	9.09% (16)

which is 2.511, indicating that in terms of teacher professionalism, students recognize the teacher's learning plan and rhythm of online and offline teaching. C4: I think the mean value of teachers being able to solve our problems in time is the smallest, which is 2.438. This reflects that teachers are not timely enough to solve students' learning problems. Blended teaching is not limited by time and place. In addition, there are various communication methods on the Internet. Therefore, teachers should strengthen learning cooperation with students no, matter online or offline. Communicate. Teachers' timely solution to students' problems is an important channel to promote students' blended learning and improve teaching quality, which is conducive to establishing a good educational relationship and a good educational atmosphere.

Table 4-11 Statistical table of mean and standard deviation of teacher professionalism

Topic	Sample size	Average value	Standard deviation
C1	176	2.494	1.292
C2	176	2.511	1.274
C3	176	2.455	1.295
C4	176	2.438	1.254

4.3.1.4 Learning interest

Students learning interest is very important in blended teaching because students' learning interest can have a profound impact on the quality and effectiveness of their learning. According to Table 4-12, the frequency and percentage statistics table of learning interest, we can know that D2. I would like to take the initiative to understand

the content related to the packaging design course before and after class, and the highest percentage of the frequency of choosing "conform" among the matched samples, 31.25%, chose D1. Among the samples that I am very interested in the packaging design course, the highest rate is "conforming", with a percentage of 30.11%; choose D3. If there are new courses related to packaging design, I am willing to continue learning" "Conforming" was the highest at 28.41%. It shows that students' learning interest in blended teaching is still relatively high. In blended teaching, students can explore their learning interests and explore their own learning goals by trying various learning methods and skills. This will stimulate students' interest and enthusiasm for learning and improve their motivation and enthusiasm for learning.

Table 4-12 Study Interest Frequency and Percentage Statistics

	Completely suitable	Conform	Generally	Incompatible	Very inconsistent
D1	26.14% (46)	30.11% (53)	18.75% (33)	13.64% (24)	11.36% (20)
D2	23.86% (42)	31.25% (55)	21.59% (38)	10.23% (18)	13.07% (23)
D3	26.14% (46)	28.41% (50)	21.02% (37)	11.36% (20)	13.07% (23)

According to the mean and variance data in Table 4-13, the most significant mean is D3, which is 2.568; followed by D2, which is 2.574, and the mean of D1 is 2.540, which shows that students have a particular interest in the course of packaging design. Students' interest in learning is crucial to blended teaching. Because blended teaching requires students to learn independently and actively participate in classroom activities and discussions. If students are not interested in the topic or content of the study, they are likely to be disengaged or not engaged in the class. However, in terms of learning, they are more willing to actively participate in the exploration of the content that students are interested in. This motivation to learn will help students learn more deeply and achieve better academic outcomes. Therefore, the success of blended teaching is closely related to students' interest in learning. Teachers need to guide students' understanding of learning content, to improve students' autonomous learning ability and motivation.

Table 4-13 Statistical Table of Mean and Standard Deviation of Learning Interest

Topic	sample size	average value	standard deviation
D1.	176	2.540	1.317
D2.	176	2.574	1.312
D3.	176	2.568	1.338

4.3.1.5 Learning Satisfaction

Students' satisfaction with learning, including blended teaching, is an essential basis for evaluating the quality of teachers' teaching. Teachers should pay close attention to students' satisfaction with teaching and actively improve teaching quality and effects. In Table 4-14, the frequency and percentage statistics of learning satisfaction, we can see that: 59.09% of the students are satisfied with the organization method under the blended teaching, 40.91% of the students disagree, 56.82% of the students are not satisfied with the online 43.18% of the students did not agree with the content of the next course; 56.82% of the students were satisfied with the online learning platform, and 43.18% were dissatisfied; 59.66% of the students were satisfied with the packaging design course in the mixed mode. The learning effect is satisfactory, and 40.34% of the students are dissatisfied. This shows that online and offline hybrid teaching has achieved certain results, and more than half of the students agree with the hybrid teaching mode. This also plays a certain role in promoting teachers' motivation to use blended teaching in future teaching. Teachers should continuously improve their teaching level and improve students' satisfaction with course learning by improving the quality of teaching.

Table 4-14 Frequency and percentage statistics of learning satisfaction

According to the mean and variance data in Table 4-15, the most significant

	Completely suitable	Conform	Generally	Incompatible	Very inconsistent
E1	27.27% (48)	31.82% (56)	17.61% (31)	10.80% (19)	12.50% (22)
E2	24.43% (43)	32.39% (57)	15.91% (28)	14.77% (26)	12.50% (22)
E3	25.00% (44)	31.82% (56)	17.05% (37)	11.36% (20)	14.77% (23)
E4	27.27% (48)	32.39% (57)	17.61% (31)	6.82% (12)	15.91% (28)

mean is E3: I am satisfied with the online learning platform, which is 2.591. It shows that students are highly interested in learning the "Packaging Design" course. For the current blended teaching, the convenient and flexible online learning platform has been recognized by more students. The average value of E1 is small, 2.494, which shows that teachers still need to strengthen and improve in teaching organization. Dissatisfaction with the teaching organization will affect students' interest in learning.

On the contrary, if students are satisfied with the experience of the teaching organization, they will be more actively involved in learning, more willing to invest time and energy and achieve better learning results. Therefore, teachers should constantly pay attention to student's satisfaction with the course and improve students' satisfaction in the learning process by improving teaching methods and teaching resources.

Table 4-15 Statistical Table of Mean and Standard Deviation of Learning Satisfaction

Topic	Sample size	Average value	Standard deviation
E1	176	2.494	1.331
E2	176	2.585	1.337
E3	176	2.591	1.366
E4	176	2.517	1.377

4.3.2 Correlation Analysis of Influencing Factors of Blended Learning Effect

Correlation analysis is often used in statistics to study the correlation between multiple variables, usually using the Pearson correlation test. To further test whether there is a significant relationship between the five factors of the packaging design course under the blended teaching method, the five variables that affect the learning effect are tested, that is, the independent enthusiasm, the consistency of the course content, the teacher's professionalism, and the relationship between learning interest and learning satisfaction. The author uses SPSSAU, an online SPSS intelligent analysis software, to process data and conduct correlation analysis to study the degree of correlation between variables and further explore whether the relationship between variables is suitable for regression analysis.

It can be seen from Table 4-16 that the correlation coefficients of autonomy enthusiasm, curriculum content consistency, teacher professionalism, learning interest, and learning satisfaction are all significantly positive at the 1% confidence level. The correlation coefficients are 0.892, 0.919, 0.918 and 0.939, both above 0.8, indicating a strong positive correlation. That is to say, there is a significant and robust positive correlation between autonomy enthusiasm, curriculum content consistency, teacher professionalism and learning interest, and learning satisfaction. This provides the basis and support for the regression analysis among the variables of independent enthusiasm, curriculum integration, teacher professionalism, learning interest, and learning satisfaction.

Table 4-16 Correlation Test Form

	Self-motiva tion	Consistency of course content	Teacher professionalism	Learning interest	Learning satisfaction
Self-motivat ion	1	0.912***	0.909***	0.895***	0.892***
Consistency of course content	0.912***	1	0.922***	0.905***	0.919***
teacher professionali sm	0.909***	0.922***	1	0.928***	0.918***
Learning interest	0.895***	0.905***	0.928***	1	0.939***
learning satisfaction	0.892***	0.919***	0.918***	0.939***	1

Note: *, ** and *** indicate significant correlation at 0.10, 0.05 and 0.01 levels (two-tailed), respectively.

4.3.3 Regression Analysis of Influencing Factors of Blended Learning Effects

The above correlation analysis shows a correlation among self-directed enthusiasm, curriculum content consistency, teacher professionalism, learning interest, and learning satisfaction, so the next test can be carried out. In this study, based on relevant literature research and relevant questionnaire survey data, it is deduced that among the influencing factors of learning interest, autonomous enthusiasm, curriculum content consistency, teacher professionalism, and learning interest have different degrees of influence on learning satisfaction. Therefore, to test The difference in the size of the impact of the self-directed initiative, curriculum content consistency, teacher professionalism, learning interest, and learning satisfaction, taking self-directed enthusiasm, interactive participation, and teacher professionalism as independent variables, learning satisfaction as the dependent variable, using SPSSAU one Online SPSS intelligent analysis software is used for data processing and analysis, and the degree of influence can be obtained through regression analysis.

Table 4-17 Regression Analysis Summary Table

Model	R	R square	Adjusted R square	Standard Estimate Error
1	0.955[a]	0.911	0.909	0.38951

a. Predictor variables: (constant), learning interest, self-motivation, curriculum content consistency, teacher professionalism.

Table 4-18 Variance analysis table

	Model	sum of squares	degrees of freedom	mean square	F	P
	Return	265.982	4	66.495	438.275	0.000[b]
1	Residual	25.944	171	0.152		
	Total	291.926	175			

a. Dependent variable: learning satisfaction.

b. Predictor variables: (constant), learning interest, self-motivation, curriculum content consistency, teacher professionalism.

Table 4-19 Regression coefficient table

	Model	B	standard error	standard coefficient	t	P
1	(Constant)	-0.035	0.071		-0.492	0.623
	Self-motivation	0.063	0.068	0.058	0.925	0.356
	Consistency of course content	0.311	0.072	0.294	4.333	0.000
	teacher professionalism	0.139	0.079	0.130	1.762	0.080
	Learning interest	0.505	0.067	0.500	7.520	0.000

a. Dependent variable: learning satisfaction.

It can be seen from Table 4-17 that the R2 after model correction is 0.909, indicating that the model fits very well; it can be seen from Table 4-18 that the F statistic of the regression model is 438.275, and the corresponding p-value is 0.000. The overall model is Significant at the 1% confidence level.

Among them, the degree of curriculum integration has a positive impact on learning satisfaction at the 1% confidence level; the professionalism of teachers has a positive impact on learning satisfaction at the 10% confidence level; learning interest has a positive impact on learning satisfaction at the 1% confidence level. There is a positive impact. With the improvement of curriculum content consistency, teacher professionalism, and learning interest, learning satisfaction will continue to rise. However, the effect of the autonomous initiative on learning satisfaction is not significant at the ten confidence level.

Specifically, learning interest has the greatest impact on learning satisfaction, with a partial regression coefficient of 0.505, indicating that every unit increase in learning interest increases learning satisfaction by an average of 0.505 units; the impact of course content consistency on learning satisfaction is second, The partial

regression coefficient is 0.311, indicating that every unit increase in curriculum content consistency increases learning satisfaction by an average of 0.311 units; the impact of teacher professionalism on learning satisfaction is small, and the partial regression coefficient is 0.139, indicating that learning interest increases by one unit. Units teachers' professionalism increased by 0.139 units on average. Therefore, learning interest has the greatest impact on learning satisfaction.

4.4 Analysis of Teacher Interview Survey Results

To gain an in-depth understanding of the application of blended teaching in the course of packaging design, the author conducted interviews with three teachers majoring in advertising to understand the teachers' views on the application of blended teaching and what problems they encountered in the implementation of teaching. Supplementary evidence for the specific circumstances of the application of blended instruction in the course.

4.4.1 Understanding and evaluation of blended teaching by teachers of packaging design course

Teachers believe blended teaching in the teaching process is more meaningful and valuable than traditional teaching methods. Blended teaching brings more methods and more efficient feedback speed to teaching evaluation. Teachers can publish teaching results through online teaching platforms. Resources are provided for students to learn, and teaching activities can be released through the teaching platform. In addition, blended teaching broadens the time and space before and after class. On the one hand, it provides students with preview learning resources before class. On the other hand, teachers can give students homework or problem feedback after class to supervise students' learning.

Ms Lin: I think the greatest value of using blended teaching in higher vocational education is to get timely data feedback Because we can use the online learning platform to understand the performance of the students in the entire classroom, get relevant feedback promptly, and then make specific course plan adjustments based on the real-time performance of these students.

Ms Chen: It is better to discover the learning differences among students in the classroom and to teach students following their aptitude.

4.4.2 Teachers' evaluation of the implementation process of blended teaching

Since blended teaching involves online and offline teaching design, teachers must improve their teaching ability. In terms of teaching design, teachers must first be familiar with the design of each section of the online teaching platform. In addition, teachers must arrange the teaching time reasonably, and at different teaching stages, teachers must timely adjust the duration of online and offline teaching. For teachers For this, this is a new challenge. In teaching management, blended teaching will bring

specific challenges to classroom order. Teachers must maintain classroom order and ensure teaching quality.

Ms. Lin: When designing teaching, we should focus on how to coordinate online and offline. Specifically, we need to be clear when designing which parts should be used online and which parts should be used online. Next, this needs to be designed. In addition, in the process of teaching, we must pay attention to evaluation, and we must clarify which content is suitable for online evaluation and which content needs to be carried out offline, to avoid the order of the entire course classroom being affected.

Teacher Wu: Compared with traditional teaching design, pre-class guidance, and after-class knowledge improvement links should be added to blended teaching.

4.4.3 Too much energy is spent on platform resource preparation and online evaluation

Using blended teaching is inseparable from the time and energy teachers devote. Online, teachers need to set up various types of learning resources according to the needs of the course. Some teachers have no idea about the selection of learning resources and do not choose more appropriate course resources according to the corresponding course objectives. In addition, some of the selected video resources are also long, which can easily make people feel tired. In the online evaluation process, teachers need to judge the practical assignments submitted by students one by one, which will increase teachers' workload. For teachers, it is necessary to confirm which parts of online assignments should be included in summative evaluation and process evaluation, determine the weight of each section, and make a trade-off when uploading online tasks.

Ms.Wang: Using blended teaching in the packaging design course, the most difficult thing is to grade the homework submitted by the students. Some operations are time-consuming and laborious.

Ms.Wu: Although blended teaching can record and analyze each student's homework and class participation through the platform system, the more troublesome thing is that it needs to prepare a lot of resources, which requires a lot of energy in this process.

4.4.4 Teachers believe that blended teaching should focus on classroom management

The course of packaging design belongs to the core course of advertising major, and the course itself requires proficiency in the use of graphics and images to deal with the software and make the packaging design renderings of the product-related requirements, the course itself needs to be operated by a computer. The use of blended teaching can improve students' information literacy and promote students' skill acquisition. However, the teaching activities involved in blended teaching may

distract students to a certain extent. Teachers should grasp the proportion of blended teaching time and increase the intensity of classroom management.

Ms. Lin: I think that the use of blended teaching in packaging design courses should pay special attention to teaching management,because the packaging design course is highly practical, it needs to use a computer for practical operations. In other words, this course itself is a course that uses computers to operate online, and then uses online delivery, so in this course, it itself is a kind of technical training.

Ms. Wang: In the use of blended teaching in packaging design courses, it is necessary to fully tap teaching resources, and use micro-class videos to disassemble the process steps, so that students can grasp knowledge more intuitively and clearly.

4.5 Data organization of student interviews

There are eight questions in the interview outline of this study. The selection of interview subjects and interview methods are described in the previous article. In the results of the interview, the following are the statistics and collation of the results corresponding to the topics in the interview.

Table 4-20 Organize the results of the interview question 1

I prefer blended teaching methods to traditional teaching methods		Would you like to continue using blended teaching?
Yes	20	15
No	0	5

In general, the majority of students are more inclined to use blended learning, and 20 out of 20 interviewees say they accept blended teaching. It can be seen that blended teaching methods are generally accepted. 15 out of 20 respondents said they were willing to continue using blended teaching, and 5 respondents said they were not willing to accept online learning. The overall picture looks optimistic.

Table 4-21 Organize the results of the interview question 3

attitude	Very bad	bad	normal	good	preferably
quantity	1	4	6	6	3

It can be seen that among the 20 interviewees, about 5 people think that the learning effect is not optimistic, about 6 people think that the learning effect is normal,

and about 9 people think that the learning effect is satisfactory. However, in the specific interview process, almost all interviewees believe that there are some problems in the construction of current online learning resources, such as: inhuman, insufficient functions, poor feedback mechanism, learning interaction is not high enough and so on. In particular, the problem of inadequate feedback mechanism has been raised more than 10 times. It can be seen that the construction of feedback mechanism of online learning resources is likely to be intrinsically related to the learning effect.
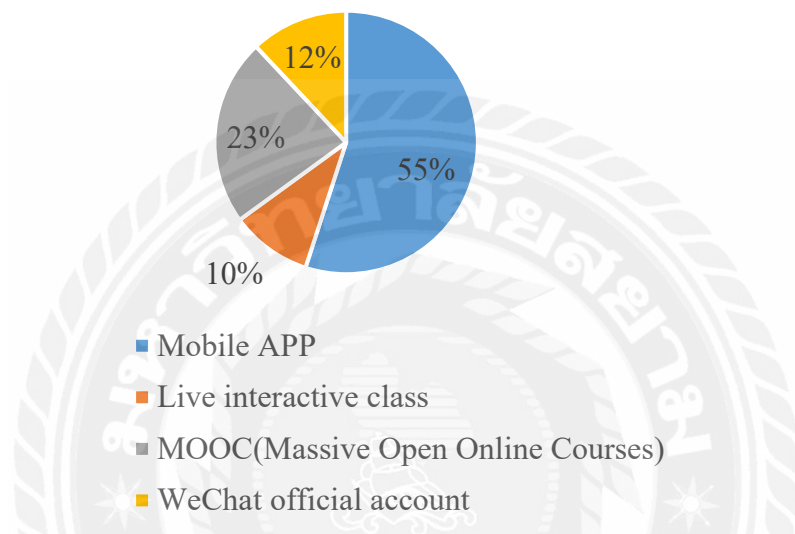
Figure 4-6 Organize the results of the interview question 4

According to the statistics after the interview, most of the network learners are more inclined to use mobile APP for network learning, and the value even reaches nearly 60%. Moreover, according to the interviewees, not only they, but also most of their classmates tend to use mobile apps for online learning as their main way of learning. In other categories, only 10% of students chose live interactive courses for online learning, wechat public accounts accounted for 12%, and online open courses accounted for 23%. It can be seen that among college students in target universities, the use of mobile APP for online learning is the mainstream way.

4.6 Analysis of Student Interview Survey Results

Regarding the application of blended teaching in our school's packaging design course, the author communicated with five students majoring in advertising design after class, mainly to understand students' feelings on the application of blended teaching in the course and students' suggestions for course improvement.

4.6.1 Students' satisfaction with learning resources is not high

Regarding the learning resources uploaded by teachers to the learning platform,

some students think that the learning resources are of little significance. On the one hand, some video teaching resources are too large, and there will be loading errors. On the other hand, students think that the online teaching resources are not closely related to face-to-face classroom teaching. high. Another part of the students think that the teaching resources in the teaching platform can be watched repeatedly, and students can check for omissions and fill in the gaps after class, so they are still satisfied with the learning resources.

Student Y: I think the resources on Xuetong teaching platform can not arouse my interest in learning, because some videos have too much memory and are slow to open, and some resources do not feel that they have much connection with textbook knowledge.

4.6.2 Students agree that online teaching activities are helpful to learning enthusiasm

Blended teaching online teaching activities can adopt more interesting and interactive teaching content and methods. Students can improve their learning effects and enrich their learning through rich and diverse learning resources, such as online learning videos and interactive courseware. colorful. Attract students' attention, enhance students' interest in learning, and promote students' voluntary participation in learning activities.

Student Z: I think teaching activities can mobilize the enthusiasm for learning, especially when uploading and sharing your own design works, and the teacher will evaluate in time, and the interaction with the teacher has also increased.

Student L: I think it can mobilize my enthusiasm for learning, especially upload the pictures of the completed design works to the platform, and wait for the teacher to give us revisions. Sometimes the teacher will let us write some thoughts on our own design.

4.6.3 Students think that the interaction under blended instruction is good

Blended teaching broadens the platform for teacher-student communication. Students can directly communicate with teachers on the online learning platform to facilitate students to solve problems promptly. In addition, the various teaching activities brought by the new teaching method can stimulate students' interest and activate the classroom atmosphere. However, some students also reported that although online teaching brings convenience, it has higher requirements for students' self-discipline, and face-to-face classrooms have a more learning atmosphere.

Student S: the activities in the blended teaching mode can mobilize enthusiasm and make the learning atmosphere active.

Student N: Under the hybrid teaching mode, the interaction between teachers and

students will be faster and more convenient, but although you can communicate with teachers online, you may not necessarily interact with teachers. I think offline teaching can better promote teachers and students. Interactive, even the school environment is more learning atmosphere.

4.6.4 Students think that teaching evaluation methods need to be diversified

A few students think it is more reasonable to include the experience value on the teaching platform in the course evaluation. However, many students have disputes, including some who believe that the experience value should be used as a consideration for the completion of the student's task and learning enthusiasm and finally included in the course evaluation. According to the students' process evaluation, some students think that the teacher can include the experience value in the final assessment, but it depends on the type of activity uploaded by the teacher.

Student W: I think the experience value should be used as a reference for our enthusiasm and task completion...

Student Y: I think the experience value can be included in the course assessment because it can stimulate enthusiasm for learning.

Student N: If the experience value is related to the performance assessment, everyone will pay attention to it. It can mobilize our enthusiasm for learning, but I think the experience value can only represent the attitude and enthusiasm for learning because as long as you do it, you can get the corresponding rewards. The experience value is still recommended to be included in the process evaluation, instead of directly taking the experience value as the assessment result.

4.6.5 Suggestions for students majoring in advertising in higher vocational colleges to apply blended teaching to packaging design courses

Blended teaching involves online teaching and face-to-face classes. For teachers, blended teaching design is also a new challenge. Students responded that teachers should do more innovations in instructional design, including uploaded learning resources and organized teaching activities. In addition, teachers should explain the teaching platform to students in detail before implementing blended teaching so that the teaching can be carried out better..

Student S: Each student has a different academic situation, blended teaching cannot be applied to all students, and the teacher may work harder.

Student N: Blended teaching needs more innovation. For the blended teaching, mobilizing our enthusiasm and initiative is the biggest difficulty. Now I think the teacher's teaching form is still relatively monotonous. Teachers should focus on developing better course content and teaching format, so that we can be more actively involved in.

After all the interviews are sorted out and all the interviewees' views and data are analyzed and classified in depth, the following results can be obtained, as shown in Table 4-22 below:

Table 4-22 The respondents' overall views on each dimension of the study were sorted out

Statistical results of each dimension	Number of people who think it is the most important factor	Number of people who consider the least important factor
Usage habit	0	6
Willingness to use	4	3
Mode of use	1	4
Experience of use	4	4
Suggestions for improvement	2	2
Usage time habit	2	1
Use effect	7	0

In the interview results, we can also see that among the 20 college students surveyed, the most concerned factor in the process of using online learning resources for learning is the use effect, and the least concerned is the use habit, use way and use feeling. It is basically consistent with the results of scientific statistical calculation of questionnaire survey results. Although the usage experience is slightly different, but considering the small difference and experimental error, it is ignored here. In general, the seven dimensions are all factors that have an impact on e-learning. Among the seven dimensions, the use effect is the most direct factor that has the greatest impact on e-learning, and it is also the dimension that has the closest connection with the other six dimensions. After the use effect, the main influencing dimensions are the use time period, the improvement suggestions, and the use experience. These four dimensions are the main influencing factors of this study. Usage habits, willingness to use, and mode of use also have an impact on learners, but they are not as important as the first four dimensions mentioned, which are all secondary influencing factors.

Chapter 5 Conclusion and Recommendation

5.1 Conclusion

Based on fully consulting many documents, this research takes constructivism, humanism and mastery of learning theory as the primary theoretical basis, aiming at the students and teachers of advertising design major in the higher vocational college where the author works through questionnaires and interviews. To understand teachers' and students' evaluation of the application status of blended teaching in the "Packaging Design" course and to explore the factors and differences that affect students' learning effects. The following conclusions can be drawn:

Conclusion 1: Using blended teaching in the "Packaging Design" course in higher vocational colleges has improved students' enthusiasm for learning the course. According to the relevant research data in the previous chapter, most students and teachers are satisfied with the attitude of blended teaching. Most students think blended teaching has advantages and applicability, and they can get better results in this mode. The learning experience improves the enthusiasm for the course. Of course, we cannot simply conclude that blended teaching is good or bad just by the student's attitudes. Most importantly, teachers and schools need to flexibly adjust and improve the blended teaching model according to the needs and situations of students so that students can learn more comprehensively, profoundly and effectively.

Conclusion 2: Using blended teaching in the "Packaging Design" course in vocational colleges can help improve students' professional ability in packaging design. Blended teaching includes a teaching mode that combines traditional teaching and online teaching. Based on traditional teaching, information technology tools are added to enrich the teaching content and form. This teaching method can improve students' independent learning ability and innovation ability; the course on packaging design is convenient, and under the mixed teaching method, students can understand and apply packaging design principles and techniques more flexibly and deeply. , to promote the cultivation of students' design ability.

Conclusion 3: The use of blended teaching in the "Packaging Design" course in vocational colleges significantly impacts students' learning. After referring to the evaluation and measurement methods of many experts, combined with the previous successful research theories, the influencing factors of the blended teaching effect were proposed, among which the independent enthusiasm, consistency of course content, teacher professionalism, learning interest, and learning satisfaction were the most critical factors for the blended teaching effect. The influencing factors of teaching students have a specific positive relationship. The data shows that among the influences of independent variables on learning effects, learning interest has the most significant impact on learning satisfaction. In contrast, teacher professionalism has a

relatively small impact. Therefore, teachers should pay close attention to these influencing factors when teaching blended. Reasonable and engaging online resources and activities can mobilize students' independent enthusiasm and interactive participation. At the same time, teachers should improve their teaching professionalism, which can improve students' learning interest to a certain extent. Compared with traditional teaching, blended teaching has significantly improved students' learning effect and student satisfaction. Teachers should actively carry out teaching innovation, use online and offline blended teaching modes to carry out teaching activities and try to improve teaching quality .

5.2 Discussion

Based on fully referring to a large number of literature and theoretical basis, this research mainly investigates the application and existing problems of blended teaching in the "Packaging Design" of advertising majors in higher vocational colleges. Further, it explores and analyzes the effects of blended teaching-learning. The elements of. Affected by subjective reasons and objective conditions, some areas for improvement in implementing this study need further improvement.

In investigating the influencing factors of learning interest, the author, based on literature analysis and expert opinions combined with his own teaching experience, determined the impact of blended teaching from five dimensions: independent enthusiasm, curriculum integration, teacher professionalism, learning interest, and learning satisfaction. Describe the current situation. So, in addition to these five dimensions, can it be described from other dimensions? This needs to be further explored and practised.

5.3 Recommendation

Teachers should take students as the main body in the blended teaching mode. For a long time, the teaching mode centred on teachers' lectures has occupied a dominant position in teaching colleges and universities in my country (Ye, 2021). This traditional teaching mode emphasizes the teacher's controlling position in classroom teaching. However, under the guidance of the hybrid teaching idea, it emphasizes students' independent and active learning and emphasizes students' active acquisition of knowledge. The "teaching" of the students is the "learning" of the students, which requires college teachers to change from the dominant position in the traditional classroom, reposition their roles and responsibilities, and establish a student-centred teaching concep.

Teachers should grasp the advantages of blended teaching. Blended teaching combines traditional teaching and modern technology, which can enrich teaching methods and improve student interaction. Teachers can help students better master the knowledge and skills of the course through online learning platforms, video teaching,

etc., and encourage students to learn and think independently. In the teaching process, the teacher should adjust the teaching content in time according to the course content and the specific learning situation of the students. Before and after class, teachers can learn about students' learning situation and performance through the online learning platform, continuously improve teaching methods and content, and ensure teaching quality and effectiveness. The problems existing in the learning process of students can be timely fed back through online or offline communication methods, and patiently explained, so that students can achieve the best learning effect.

In blended teaching, students' interest in learning is significant. Blended teaching combines the advantages of traditional and online education, enabling students to have a broader and more diverse learning experience. Students' interests and motivation are the driving force of learning. If students are interested in what they are learning, they will be more actively involved in learning and perform better. At the same time, blended teaching requires students to have a particular ability of independent learning, to find resources and learn independently, and maintaining interest in learning can also help students better develop their independent learning ability. Therefore, teachers should stimulate and maintain students' interest in learning by guiding students, diversifying learning methods and strengthening learning outcomes in blended teaching.

5.4 Further Study

This study mainly investigates the application of blended teaching in the packaging design course of advertising majors in vocational colleges and the existing problems and further explores and analyzes the factors that affect the learning effect of blended teaching. The suggestions for future research are as follows:

5.4.1 Strengthen the theoretical study of blended teaching

Scientific theory plays a positive role in guiding practice. Teachers, as designers and practitioners of blended instruction implementation providers, need to have a solid theoretical knowledge base. To strengthen teachers' theoretical study of blended teaching, first of all, learn the theoretical basis of blended teaching, such as Rogers' humanism theory and the new theory proposed by Professor Wang Zhuli.

Constructivist theory, and so on. Through in-depth study of these theories provides theoretical support for the design and implementation of blended teaching and understands that blended teaching is not a castle in the air but can be applied to teaching specific subjects. Second, learn the educational philosophy of blended teaching. As a new type of education mode, blended teaching adheres to the principle of "student-centered". In teaching practice, teachers should set students as the main body of teaching activities, create a teaching environment to stimulate students' emotional experience and cultivate innovative spirit(Chen, 2019). Next, learn the design process of blended teaching. As a comprehensive education model, teachers

should clarify what blended teaching does, which elements are mixed, and which goals can be achieved. The blended teaching studied by the author does not separate the two independent teaching modes but regards them as an organically combined whole. Based on the design characteristics of blended teaching and the growth of students, teachers combine teaching content to internalize blended teaching as their teaching system and integrate the advantages of information technology into our traditional teaching.

5.4.2 Enhancing the Enthusiasm for Applying Blended Teaching

Teachers' subjective attitude towards blended teaching, information technology operation level, and theoretical knowledge affect the effect of blended teaching in packaging design courses of advertising majors in higher vocational colleges. Teachers as designers and practitioners of blended instruction Givers must clarify the main characteristics and individual differences of educational objects. In the implementation of hybrid teaching classrooms, teachers must adhere to the combination of independent innovation and teaching resource integration, prepare teaching content in multiple channels and forms, improve the presentation of teaching content; Strengthen teaching design, optimize the distribution of online and offline teaching, and constantly create a good interactive atmosphere in teaching implementation, guide students to communicate and cooperate in learning and combine various methods to stimulate students' hybrid learning motivation. Teachers should also constantly evaluate and improve teaching effects, and explore new teaching methods and technologies to make blended teaching more effective and active.

5.4.3 Continuously strengthen blended teaching research

In the application process of blended teaching, teachers and teaching and scientific research workers must have corresponding skills and qualities, including related technical skills, educational theories, and educational methods, to be more targeted. Carry out blended teaching research. Research and practice should be combined to continuously explore and innovate blended methods and methods and continuously optimize the teaching process to improve students' learning effects and satisfaction. Taking teaching effectiveness as the fundamental foothold, continuously improving the practicability of blended teaching, and leading by teaching research to promote the development of blended teaching connotation. In short, blended teaching is an innovative teaching mode that has the advantages of traditional teaching and makes full use of modern technology to make up for the shortcomings of traditional teaching. In the process of blended teaching application, we must constantly sum up experience, explore and innovate, strengthen research, improve teaching effectiveness, and positively contribute to education and teaching reform and development.

References

Cao, L., & Hao, G. (2018). Curriculum reform of the mixed teaching mode based on the blue ink cloud class platform——taking the course "Audio and Video Editing and Processing" as an example. *Journal of Guangdong Technical Normal University*, 39(3), 80-85.

Cao, G, L. (2020). *Investigation and Research on the Application of Online and Offline Hybrid Teaching Mode in Higher Vocational Colleges* (Master's Thesis). Retrieved from https://kns.cnki.net/KCMS/detail/detail.aspx? dbname=CMFD202102&filename=1020906364.nh

Chen, Y, X. (2020). Exploring the Use of Educational Technology to Improve Students' Learning Interest. *Examination Questions and Research,* (10), 142.

Chen, G, Y. (2020). The Enlightenment of Carl Rogers Humanism Theory to Modern Education Views. *Journal of Jilin Engineering Technology Teachers College*, (03), 48-52.

Ci, J. (2021). Discussing the Strategies for Cultivating Primary School Students' Mathematics Learning Interest. *Journal of Selected Essays,* (006)*, 25-26.*

Du, D, Q. (2013) *Research on the construction of mathematical models of teaching process. (*Doctoral dissertation). Harbin Normal University*,* Harbin.

Dong, Y, Y. (2016). Construction of a networked teaching platform based on junior high school mathematics classroom. *China Educational Technology Equipment*, (17), 32-33

Ding, S, S., Xiao, F., & Xue, Y, I. (2020). Thinking and practice of mixed teaching in universities. *Journal of Beijing Education (Higher Education)*, (11), 43-46.

Fei, Y. (2019). Exploration on the evaluation of diversified mathematics teaching in junior high schools under the new curriculum reform. *Middle School Curriculum Counseling (Teacher Education)*, (21), 55.

Feng, X, Y. (2020). *Research on Design and Application of Mixed Teaching Mode in Colleges and Universities Based on Mobile Learning Platform* (Master's Thesis). Retrieved from https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202101&filen ame =1020830261.nh

Gao, Y, T. (2018). Strategies for building online learning communities based on learner experience. *Journal of Radio and Television University: Philosophy and Social Science Edition,* (1)*,* 105-108.

Gao, M, M. (2021). Research on the Educational Methods of Higher Vocational Colleges from the Perspective of Humanism. *The Road to Success,* (24)*,* 12-13.

Guan, S. (2022). *Experimental Research on Online and Offline Hybrid Teaching of Badminton in Higher Vocational Colleges* (Master's Thesis). Retrieved from https://kns.cnki.net/KCMS/detail/detail.aspx?dbname =CMFD202202&filename=1022490364.nh

He, K , K. (2004). Viewing the New Development of Educational Technology Theory from Blending Learning (Part 1). *China Audio-visual Education,* (03), 5-10.

He, K, K. (2005). New development from Blending Learning. *Journal of National Academy of Education Administration*, (09), 37-48

Huang, R, H., Ma, D., Zheng, L,Q., & Zhang, H, S. (2009). Course Design Theory Based on Mixed Learning. *Journal of Electrical Education Research,* (01), 9-14.

He, C. (2021). Exploration on Issues Related to Cultivation of Applied Talents in Advertising Art Design Under the "All Media Background". *Journal of Multimedia and Network Teaching (Mid-day Journal),* (08), 177-179.

Hao, F, Z. (2021). Application Research of Blended Teaching Mode in Packaging Design Course. *Journal of Green Packaging,* (09), 60-63.

H, L, D. (2022). Research on the Application of Blended Teaching Mode in Higher Vocational Colleges. *Journal of Science and Technology Vision,* (05), 105-107.

Huang, Y, H. (2022). *Investigation and Research on the Application of Blended Teaching in the Graphic and Image Processing Course of Secondary Vocational E-commerce Majors* (Master's Thesis). Retrieved From https://kns.cnki.net/KCMS/detail/detail.aspx ?dbname=CMFD202202&filename=1022044199.nh

Ji, X, H., Z, W, H., & C, Y, Z. (2022). "Commodity Packaging Design" Blended Course Teaching Reform and Practice. *Journal of Design Art Research,* (02), 110-114.

Jiang, L, Z. (2018). Theoretical Connotation and Practical Significance of Humanistic Education Thought. *Journal of Teaching and Management,* (27), 5-7.

Li, J, H. (2014). The localization of micro-course teaching method and flipped classroom in China. *Journal of China Education Informationization*, (14), 7-9.

Li, K, D., Kang, B, C., & Chen, C, L. (2014). Research status, content and element structure of college students' learning satisfaction. *University Leadership Wisdom*, (12), 33-35.

Lu, D, F., X, H, J., Shi, Y, M., & X, H, J. (2018). Research and Practice of Online and Offline Hybrid Teaching Mode Based on Cloud Classroom. *Journal of Jiamusi Vocational College*, (12), 280.

Leng, J., Guo, R, F., & Zhong, Y. (2018). New Development of Hybrid Teaching Mode Based on Cloud Platform. *Digital Teaching in Primary and Secondary Schools*, (04), 8-11.

Li, M, G. (2018). Blended Teaching Mode: Connotation, Significance and Implementation Requirements. *Higher Architectural Education,* (04), 7-12.

Liu, W, T & Wang, X, X. (2019). Research on Influencing Factors of Blended Teaching Satisfaction. *Modern Educational Technology.* (1),107-113.

Liu, M, J & Huang, Y, Y. (2019). The Practical Dilemma of Enterprises Participating in Internship Activities under the Mode of Industry-Education Integration and Breaking the Ice of the System——Rethinking the "Regulations on the

Management of Vocational School Student Internships". *Journal of Educational Science Theory,* (36), 39-43.

Long, H, M. (2019). Research on Teaching Reform and Innovation of Packaging Design Courses for Art Design Majors in Colleges and Universities. *Design,* (15), 102-103.

Li, Q. (2022). Research on Innovation of Packaging Design Teaching Mode Based on Blended Teaching. *Journal of Footwear Technology and Design* (3), 55-56

L, L, H., & Li, Z, H. (2023). Synchronous Interactive Classroom Presence and Its Improvement Path Research. *Journal of China Educational Informatization,* (02), 112-122.

Miao, W, J & Song, G, S. (2015). Exploration of Students' Learning Enthusiasm in Higher Vocational Colleges. *Management and Technology of Small and Medium Enterprises (Early Journal)*, (02), 279-280.

Ma, D. (2021). Research on the connotation of blended teaching from the perspective of dynamic perspective. *Journal of Asia Pacific Education*, (13), 136-137.

Pan, X, Q., & Y, G. (2021). Research on Teaching Strategies of Higher Vocational Education in the Era of Education Informatization 2.0. *Journal of Hebei Vocational Education*, (06), 35-39.

Shao, H (2021). Blended Teaching in Higher Vocational Colleges: Connotation Reconstruction, Model Innovation and Multidimensional Evaluation . *Exploration of Higher Vocational Education,* (04), 55-59+67.

Tian, W, Y & Chen, H, H. (2021). Research on Outcome-Oriented College English Teaching from the Perspective of Humanism. *Journal of Wuyi University (Social Science Edition)* (02), 88-91+94.

Wen, P, N., & Jia, G, Y. (2002). Constructivist Theory and Teaching Reform—A Review of Constructivist Learning Theory. *Journal of Educational Theory and Practice*, (5), 6-8.

Wang, J, J. (2016). Research on Blended Learning Mode in Higher Vocational Art Design Course——Taking Packaging Design Course as an Example. *Tianjin Vocational College Joint Journal* , (09), 95-98.

Wang, Y, P. (2018). *Exploration on the Reliability and Validity of Structured Interview in Public Institution Recruitment* (Master's Dissertation, Zhengzhou University). Retrieved from https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD201802&filen ame =1018109911.nh

Wang, J, Q. (2018). Practice and Exploration of Online and Offline Hybrid Teaching Quality Monitoring——Taking Shanghai Information Technology School as an Example. *Journal of China Vocational and Technical Education,* (14), 45-47.

Wang, Y, H & Hu, H, H. (2019). Exploration on the Effectiveness of Online and Offline Hybrid Teaching in Higher Vocational Colleges. *Journal of Hubei Open Vocational College,* (23), 134-135+152.

Wang, N, X. (2021). Reform and Innovation of Packaging Design Course Based on the Mixed Teaching Mode of Rain Classroom. *Journal of Industry and*

Technology Forum, (01), 157-158.

Wu, Y. (2021). *Do a good job in education and teaching "new infrastructure" and take the road of independent talent cultivation* . Retrieved from http://k.sina.com.cn/article_3164957712_bca56c1002001sb

Wang, X. (2022). *Research on the Application of Online and Offline Hybrid Teaching in School F's "New Media Marketing"* (Master's Thesis, Yunnan NormalUniversity).https://kns.cnki.net/KCMS/detail/detail .aspx?dbname= CMFD202202&filename=1022610740.nh

Xie, X, S, & Zhu, Z, L (2012). Analysis of Influencing Factors of Blended Teaching Quality in Colleges and Universities. *China Distance Education*, (10), 9-14

Xu, L, S. (2016). *Research on the Path of Ideological and Political Education for College Students in Chinese Higher Vocational Colleges* (doctoral dissertation). Jilin University, Jilin.

Xia, B, H. (2017). Application of Mixed Learning Mode in Packaging and Decoration Design Teaching. *Journal of Curriculum Education Research: Law Study and Teaching Law Study*, (11), 2-4.

Yang, W & He, F, G. (2008). New requirements for teachers' skills in blended teaching. *China Distance Education*, (06), 63-66.

Yu, H, T. (2017). Case Study on the Effect Evaluation of Hybrid Teaching Reform in Colleges and Universities——Taking Inner Mongolia University for Nationalities as an Example. *China Audio-Technology Education*, (11), 129-133.

Yan, Y, Q. (2018). Discussion on the impact of mixed learning mode on higher vocational packaging design courses. *Journal of Tiangong* , (7), 1.

Yang, X, Q. (2020). On the Enlightenment of "Mixed Teaching" to Public English Teaching in Higher Vocational Colleges. *Campus English*, (31), 99-100.

Ye, Z, M. (2021). On the Evaluation of Classroom Teaching in Colleges and Universities under the Background of Educational Evaluation Reform in the New Era. *Science and Education Literature*, (16), 53-55.

Zeng, Q, L. (2018). The Practice of Cultivating Students' Quality in Higher Vocational Colleges Based on Value-Based Education——Taking Quanzhou Light Industry Vocational College as an Example. *Journal of* Art Technology, (09), 218-220.

Zhou, W, & Zhou, Y. (2021) Teaching Reform and Innovation Practice of Packaging Design Course. *Journal of Packaging Engineering,* (S1), 261-266.

Zuo, S, W. (2021). *Research on the mixed teaching practice of "Photoshop Graphic Design Application Course" in secondary vocational schools based on Chaoxing Panya platform (*Master's thesis) Retrieved from https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202202&filen ame=1022433127.nh

APPENDIX A

Outline of Professional Interviews for Packaging Design Courses in Advertising Majors in Higher Vocational Colleges
(Student volume)

Dear students:

Hello, this is a questionnaire for the application of "Blended Teaching in Packaging Design Course", which aims to understand the students' feelings after teachers carry out mixed teaching. The questionnaire is only used for thesis research. It is anonymous and the data is strictly confidential. Please feel free to fill it out! Note: Blended instruction refers to the combination of online learning and regular face-to-face classroom learning.

First part.Basic Information
1. Gender:
A Male B Female
2. Grade:
A. Sophomore B. Junior

The second part. Evaluation of Blended Instruction (Very 5, 4, Fair 3, 2, 1)
1. Compared with the traditional face-to-face teaching mode, my opinion on the blended teaching mode is:
A. Very satisfied B. Satisfied C. General D. Dissatisfied E. No feeling
2. In the process of blended teaching and learning, the problems encountered are mainly
A. The learning resources on the platform are not ideal B. The teaching mode is single
C. The course knowledge is too difficult D. The theoretical knowledge is not combined with practice E. I don't know how to solve the difficulties
3. Through blended teaching, my mastery of the knowledge of the "Packaging Design" course
A. Not very difficult B. General C. Relatively difficult D. Difficult E. No sense
4. Through blended teaching, my participation in packaging design projects
A. Very interested B. Interested C. General D. Not very interested E. Not impressed
5. Through blended teaching, my design ability has improved
A. Very consistent B. Compliant C. Moderate D. Not consistent E. Very inconsistent

The third part.Investigation on the Influencing Factors of Learning Interest

category	item	1	2	3	4	5
Self-motivation	A1: I think I will take the initiative to preview relevant course content in advance					
	A2: I think I will take the initiative to review and summarize the knowledge points I have learned after class					
	A3: I will take the initiative to complete the homework assigned by the teacher					
Consistency of course content	B1: The content of online learning and the content of offline teaching are interrelated, and there is no contradiction, conflict or disconnection					
	B2: The learning objectives of online courses and offline courses are the same					
	B3: Able to accept the study time of online courses and the study time of offline courses					
teacher professionalism	C1: I think the teacher's explanation of the course content is easy to understand					
	C2 I think the teacher's learning plan and rhythm of online and offline teaching are reasonable and controllable					
	C3: I think the teacher's assessment method for the course is reasonable					
	C4: I think the teacher can solve our problems in time					
Learning interest	D1: I am very interested in the packaging design course					
	D2: Before and after class, I would like to take the initiative to understand the content related to the packaging design course					
	D3: I am willing to continue learning if there are new courses related to packaging design					
learning satisfaction	E1: Compared with the traditional teaching method, I prefer the blended teaching mode					
	E2: I am satisfied with the learning content of online and offline courses					
	E3: I am satisfied with the online learning platform					
	E4: All in all, I am very satisfied with the teaching effect of the packaging design course					

APPENDIX B

Outline of Professional Interviews for Packaging Design Courses in Advertising
Majors in Higher Vocational Colleges
(Teacher'svolume)

Dear teacher:

Hello: The topic of this interview is "Investigation and Research on the Application of Blended Teaching Method in Packaging Design Courses in Higher Vocational Colleges". All the contents of the interview are for research purposes only. And will not disclose your personal information, thank you very much for your support and help.

(1) Basic information

1. What is your education level?

2. Your teaching experience?

3. What is your major?

4. What is your current job title?

(2) Basic content of the interview

1. What do you think is the greatest value of using blended teaching in higher vocational colleges?

2. What do you think is the effect of implementing blended teaching in the "Packaging Design" course?

3. What do you think are the advantages and disadvantages of blended teaching compared with traditional teaching methods?

4. What do you think should be paid attention to in teaching design when implementing blended teaching?

5. What difficulties did you encounter in the process of implementing blended teaching?

6. Please make some suggestions on the application of blended teaching in packaging design course.

APPENDIX C

Outline of Professional Interviews for Packaging Design Courses in Higher Vocational Colleges
(Student volume)

Dear students:

Hello: Thank you very much for joining us for this interview. The purpose of this interview is mainly to understand some opinions of students on the application of blended teaching method in packaging design course. All interviews are for research purposes only. without disclosing students

Thank you very much for your support and help.

(1) Basic information

1. What grade are you in?

2. What is your gender?

(2) Basic content of the interview

1. When studying "Packaging Design", which piece of knowledge do you think is the most difficult to understand?

2. Compared with the traditional learning method and the blended teaching method, which teaching method do you prefer?

3. Do you think the resources on online platforms can increase interest in learning?

4. Do you think the activities on the online platform are interesting? What activities do you enjoy?

5. What do you think of the teacher-student and student-student interaction under the blended teaching mode? What problems do you think there are still existing?

6. Do you think it is reasonable for the teacher to incorporate the learning records on the online teaching platform into the course assessment results?

7. How do you think blended teaching is helpful for learning "Packaging Design"?

8. What do you think should be improved in blended teaching?