

# Guidelines for Developing Blended Learning Management in the Accounting Department of Guangxi Financial Vocational College

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**Abstract:** The purposes of this research are 1) to study on the states of blended learning management in Accounting Department of Guangxi financial Vocational College, 2) To study on the guidelines for the development of blended learning management in Accounting Department of Guangxi financial Vocational College. The population for this research was 1493 first-year students and 39 administrators and teachers in the Accounting Department of Guangxi financial Vocational College. The sample for this research was 306 first-year students in the Accounting Department of Guangxi financial Vocational College. The interviewees in this research was 5 high-level administrators in Guangxi financial Vocational College. The research instruments is questionnaire and interview. Data analysis includes descriptive statistics analysis, reliability analysis, confidence analysis. The statistics were through descriptive analysis of learning management, learning of students, learning innovation and learning support, 5 high-level administrators were interviewed. The results were found that. The states of blended learning management in the Accounting Department of Guangxi Financial Vocational College are at a high level in all four aspects. Considering the results of this research aspects ranged from the highest to lowest level were as follow: Learning management, followed by Learning support, Learning of students and Learning innovation. Guidelines for developing blended learning management in the Accounting Department of Guangxi Financial Vocational College include: 1) Teachers should improve information literacy and teaching implementation ability, and pay attention to the learning process of students. 2) Students should continuously improve the cognition and adaptability of blended learning, and carry out blended learning in depth. 3) It is necessary to continuously optimize the technical advantages of the platform and provide high-quality learning services. 4) The school provides supporting services in terms of policy, environment, and infrastructure to provide a good learning environment.

**Keywords:** Guidelines for developing, Blendedlearning, Management

## 1. Introduction

In 2012, the Ministry of Education of China issued the "Ten-Year Development Plan for Educational Informatization (2011-2020)" in order to promote the implementation of the "National Medium and Long-Term Educational Reform and Development Plan (2010-2020)" on the overall deployment of educational informatization. "Pointed out that higher education informatization is an effective way to promote higher education reform and innovation and improve quality, and it is the innovative frontier of education informatization development. It is necessary to focus on promoting the deep integration of information technology and higher education, promote the modernization of educational content, teaching methods and methods, and promote the overall improvement of the quality of higher education. With the development of information technology, the limitations of time and space have been broken, and traditional classroom teaching cannot meet the needs of teachers' teaching and students' learning time and space. Therefore, online teaching is widely used, but it also exposes many problems. How to combine the advantages of online teaching and traditional teaching has become a hot research issue. In this context, the concept of blended learning was born. In 2015, in order to solve the shortcomings and problems of online teaching, online and offline blended teaching came into being. The State Council of China promulgated the "Guiding Opinions of the State Council on Actively Promoting the "Internet +" Action", and "Internet +" has risen to the level of national strategy and has been implemented in various fields in China. The "Opinions of the Ministry of Education on Accelerating the Construction of High-level Undergraduate Education and

Comprehensively Improving Talent Cultivation Ability" promulgated by the Ministry of Education of China emphasizes that the deep integration of modern information technology and education and teaching should be promoted, and modern technologies such as the Internet and big data should be promoted in teaching and education in 2018. The application in management explores the implementation of networked, digital, intelligent, and personalized education, promotes the formation of a new form of "Internet + higher education", and uses modern information technology to promote the "overtaking" of improving the quality of higher education. The Ministry of Education of China encourages colleges and universities to build online first-class courses, offline first-class courses, and mixed first-class courses, deepen the reform of education and teaching, and point out the direction for future education. In 2021, the "14th Five-Year Plan for National Economic and Social Development of the People's Republic of China and Outline of Long-term Goals for 2035" issued by the Government of the People's Republic of China pointed out that it is necessary to deepen educational reform, give full play to the advantages of online education, and improve the lifelong learning system. Build a learning society. In the post-epidemic era, online and offline blended learning is still implemented and has become a normal teaching method in major universities. Various policies successively promulgated in China provide strong policy support for this research on online and offline hybrid teaching, which is in line with the general trend of national education and teaching reform, and escorts the smooth development of online and offline hybrid teaching.

In 2019, in the "Notice on Printing and Distributing Implementation Opinions on Accelerating the Development of Guangxi Vocational Education Informatization" issued by the Department of Education of Guangxi Zhuang Autonomous Region, it is pointed out that information technology has a revolutionary impact on education, not only changing the way of teaching and learning, but also deeply affecting The philosophy, culture and ecology of education. At the same time, there are problems such as insufficient integration of information technology and education and teaching, and low level of informatization application. Leading the modernization of education with the support of educational informatization is a strategic choice for the reform and development of my country's education in the new era. In 2022, the "14th Five-Year Plan for the National Economic and Social Development of the Guangxi Zhuang Autonomous Region and the 2035 Long-term Goal Outline" issued by the Guangxi Zhuang Autonomous Region Development and Reform Commission emphasizes accelerating the modernization of education and promoting the high-quality development of education. Guangxi Zhuang Autonomous Region attaches great importance to the development and construction of educational informatization, vigorously supports the deep integration of information technology and education and teaching, and encourages online and offline blended learning. Therefore, this study has practical guiding significance for improving the current problems of insufficient integration of information technology and education in Guangxi.

With the development of digital technology and the impact of the epidemic, online and offline hybrid teaching has been widely used. Some colleges and universities or educational companies have even developed and designed teaching software to replace the original functional platforms such as QQ and WeChat, and have become the information-based teaching platform for colleges and universities. As an important carrier of education, students' learning methods have also undergone major changes. 2020 is a critical year for China's online education. Due to the impact of the new crown epidemic, the Ministry of Education requires teachers to carry out online teaching and students to study at home. In March 2020, Guangxi Financial Vocational and Technical College began to use cloud classes, cloud classrooms, Xuetong, and Tencent conference online teaching platforms, and started online teaching and learning with the help of QQ, WeChat, and Dingding third-party platforms; during the epidemic, The online teaching platform is used interactively with offline teaching; in the post-epidemic period, online learning is still an important part of teaching and plays an important role in teaching. However, many colleges and universities are still in the perfect stage of blended learning, and the results have not met expectations. The researcher taught at Guangxi Finance Vocational and Technical College. According to the current implementation of blended teaching, combined with his own teaching experience, teacher feedback, and student performance, he found that the learning function of the platform was not fully utilized, and the learning effect of students was not obvious. To improve teaching quality, teaching effect and learning effect, it is necessary to keep pace with the times, follow the general trend, closely integrate with digital technology, constantly reform and innovate, and change traditional learning methods. Therefore, in blended learning, it is necessary to promote the efficient implementation of online and offline blended learning, so as to achieve the best learning effect and effectively implement the goal of teaching and educating people.

Regarding the pain points and support information mentioned above, therefore, the researcher is there fire interested in study guidelines for developing blended learning management in Accounting

Department of Guangxi financial Vocational College.

## **2. Research Methodology**

The data collection for objective 1: to study on the states of blended learning management in Accounting Department of Guangxi financial Vocational College. The researcher requested requirement letter form the graduate school, Bansomdejchaopraya Rajabhat University for requiring to collect the data from 306 first-year students in the Accounting Department of Guangxi financial Vocational College. The researcher distributed the questionnaire to 306 first-year students in the Accounting Department of Guangxi financial Vocational College. A total of 306 questionnaires can be returned, accounting for 100%.

The data collection for objective 2: to provide guidelines through Interviews. The interviewees were 5 administrators and teachers of the Accounting Department of Guangxi financial Vocational College, selected from 39 senior managers and accounting department administrators and teachers of the Accounting Department of Guangxi financial Vocational College. Interview methods are mainly conducted WeChator Telephone.

## **3. Research Scope**

### ***3.1. Population and the Sample Group***

#### ***3.1.1 Population***

The population of this research was 1493 first-year students and 39 administrators and teachers in the Accounting Department of Guangxi financial Vocational College.

#### ***3.1.2 The Sample Group***

According to Krejcie and Morgan sampling table, the sample group of this research was 306 first-year students in the Accounting Department of Guangxi financial Vocational College.

The interviewees in this research was 5 high-level administrators in Guangxi financial Vocational College. The qualifications of interviewees are as follows: 1) at least 5 years of working experience in education management, or 2) At least 3 years of education informatization leadership experience.

### ***3.2. The Variable***

According to the analyzed of related theories and researches, the factors that affect the effect of blended teaching are as follows:

Learning management, Learning of students, Learning innovation, Learning support

Time: September 2022 to July 2023

## **4. Research Findings**

### ***4.1 Research objective 1: To study on the states of blended learning management in the Accounting Department of Guangxi Financial Vocational College.***

Presentation of Data Analysis

General information statistics:

In the questionnaire survey, there are four questions in the first part, General information of the response, and the questionnaire survey is as follows Table 1.

Table 1: General information of the response

(n=306)			
Items	Category	Frequency	Percentage (%)
Gender	man	30	9.80
	woman	276	90.20
	Total	306	100
How much do you know about blended learning?	Know very well	7	2.29
	Better understand	39	12.75
	General understanding	112	36.60
	Do does not know much	114	37.25
	Don't understand at all	34	11.11
	Total	306	100
Which teaching method do you prefer?	Offline face-to-face classroom teaching	93	30.39
	Simple online network teaching	32	10.46
	Online and offline hybrid teaching	181	59.15
	Total	306	100
Here are some learning platforms or tools that you have used	Cloud class	301	97.73
	Dingding	283	91.88
	Learning pass	284	92.21
	Rain classroom	11	3.57
	Tencent conference	286	92.86
	QQ classroom	120	38.96
	other	64	20.78
	Total	306	100.0

According to Table 1, the researcher analyzed the data collected in the first part: General information of the response, we can see that: From the perspective of gender distribution, most of the samples are "female", the proportion is 90.20%, and "male" only accounts for 9.80%. The proportion of men and women in the accounting department itself is seriously out of balance. Most of the students in the accounting department are girls, and the proportion of boys is relatively small. Regarding the distribution of answers to the question "How much do you know about blended learning?", most of the samples are "Do does not know much" accounting for 37.25%, "General understanding" accounting for 36.6%, and "Better understand" accounting for 12.75%. Regarding the distribution of the answers to "Which teaching method do you prefer?", 58.77% of students prefer "online and offline hybrid teaching", 30.39% of students prefer offline face-to-face classroom teaching, and only 10.46% of students prefer "Simple online network teaching". Regarding the use of learning platforms or tools, Cloud class accounted for 97.73%, Tencent conference accounted for 92.86%, and Learning pass accounted for 92.21%.

Table 2: Statistical table for each variable

(n=306)					
	Dimension	M	S.D.	Level	Rank
1	Learning management	3.85	0.75	high	1
2	Learning of students	3.80	0.82	high	3
3	Learning innovation	3.79	0.79	high	4
4	Learning support	3.84	0.80	high	2
	Total	3.82	0.79	high	

From Table 2, the research results found that the students' evaluation of the states of blended learning management in the Accounting Department of Guangxi Financial Vocational College shows that the four variables are at a high level (M=3.82, S.D.=0.79). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Learning management (M=3.85, S.D.=0.75), followed by Learning support (M=3.84, S.D.=0.80), and Learning innovation(M=3.79, S.D.=0.79)was the lowest level.

*Table 3: Questions classified by variables: Learning management*

Items	M	S.D.	Level	Rank
Teachers like to use the teaching platform to carry out mixed teaching.	3.66	0.86	high	11
Teachers can skillfully use teaching platforms and tools to teach.	3.91	0.84	high	3
Teachers can effectively organize and manage the classroom.	3.91	0.84	high	3
Teachers can choose the most expressive information technology media for teaching according to the teaching content, such as audio, video, pictures, etc.	4.00	0.85	high	1
Teachers are fully prepared for class, with various teaching methods and a good classroom atmosphere.	3.94	0.89	high	2
Online and offline teaching activities are reasonably designed and conducted in various forms.	3.87	0.89	high	5
The teacher can arrange the classroom teaching link reasonably, and give more time and opportunities to you.	3.77	0.88	high	9
Teachers often use the platform to carry out interactive communication.	3.79	0.87	high	8
Teachers often urge you to think actively, cooperate kindly and show themselves through questions, discussions, group assignments, tests and other ways.	3.81	0.92	high	7
Teachers often use test activities to test the learning effect.	3.76	0.94	high	10
Online and offline learning content are reasonably divided and closely related, with different presentation methods, such as audio and video, pictures, etc.	3.88	0.86	high	4
In online learning, the resources, discussions and tasks uploaded by teachers can be connected with offline learning activities.	3.85	0.89	high	6
You can complete the study task seriously, the teacher can timely thumb up, increase the experience value to encourage.	3.91	0.87	high	3
Total	3.85	0.88	high	

According to Table3, the study found that Learning management is at a high level (M=3.85, S.D.=0.88). Among them, "the teacher can choose the most expressive information technology media for teaching according to the teaching content, such as audio, video, pictures, etc" has the highest level (M=4.00, S.D.=0.85), followed by "the teacher is fully prepared for class , various teaching methods, good classroom atmosphere" (M=3.94, S.D.=0.89), followed by "Teachers can skillfully use teaching platforms and tools to teach" (M=3.91, S.D.=0.84), "Teachers can effectively organize and manage the classroom" (M=3.91, S.D.=0.84) and "You can complete the study task seriously, the teacher can timely thumb up, increase the experience value to encourage" (M=3.91, S.D.=0.87). The lowest level is "Teacher Like to use the teaching platform to carry out blended teaching" (M=3.66, S.D.=0.86).

According to Table 4, the study found that the variable Learning of students is at a high level (M=3.80, S.D.=0.88). Among them, according to the research results, from the highest level to the lowest level is: "Compared to traditional offline teaching, blended learning brings you a better learning experience" is the highest level (M=3.84, S.D.=0.88) , followed by "Blended learning improves your ability to learn through multiple channels." (M=3.82, S.D.=0.88), "you can integrate online learning and offline learning time to improve learning efficiency" (M=3.82, S.D.=0.86) and "Do you still want to use the learning platform for learning in the future" (M=3.82, S.D.=0.87), these three questions have the same level. Next is, "blended learning can mobilize your learning interest and enthusiasm" (M=3.81, S.D.=0.86) and "blended learning can deepen your understanding and mastery of knowledge points" (M=3.81, S.D. =0.86), and the lowest level is "when studying online and offline, you can concentrate carefully and not wander off" (M=3.75, S.D.=0.90).

Table 4: Questions classified by variables: Learning of students

(n=306)

Items	M	S.D.	Level	Rank
You like the blended learning style.	3.78	0.89	high	5
Blended learning can arouse your interest and enthusiasm in learning.	3.81	0.86	high	3
Blended learning improves your ability to learn independently, and you can use learning resources for pre-class preview and review after class.	3.78	0.90	high	5
Blended learning improves your ability to learn through multiple channels.	3.82	0.88	high	2
Blended learning improves your cooperation and communication skills.	3.78	0.90	high	5
When you study online and offline, you can be focused and distracted.	3.75	0.90	high	6
You can integrate the time of online and offline learning to improve your learning efficiency.	3.82	0.86	high	2
You can actively participate in the interactive discussion, presentation and other interactive communication activities organized by teachers.	3.78	0.89	high	5
You can use the learning platform to actively communicate and discuss with your classmates.	3.79	0.85	high	4
Blended learning deepens your understanding and mastery of the knowledge points.	3.81	0.86	high	3
Compared to traditional offline teaching, blended learning brings you a better learning experience.	3.84	0.88	high	1
In the future, you will still want to use the learning platform to learn.	3.82	0.87	high	2
Total	3.80	0.88	high	

Table 5: Questions classified by variables: Learning innovation

(n=306)

Items	M	S.D.	Level	Rank
It is very important to use the Internet, electronic devices and learning platforms in the learning process.	3.89	0.84	high	1
The teacher supports you to use mobile phones and other mobile terminal devices reasonably in class.	3.83	0.88	high	4
When the campus network is unstable, the cost of online learning is within your range.	3.61	1.05	high	9
The learning platform is very convenient to use, the system is stable, and rarely fails.	3.67	0.97	high	8
The learning platform is simple and easy to operate, easy to use, and supports a variety of terminal access.	3.77	0.92	high	7
The platform functions (such as sign-in, answer, discussion, testing, etc.) are reasonably designed, with complete functions, friendly and easy to use.	3.79	0.88	high	6
The learning platform can effectively conduct classroom attendance management and improve the class attendance rate.	3.85	0.82	high	3
The answer, brainstorming, voting, testing and other functions can attract your attention.	3.81	0.86	high	5
Learning platform practice and test functions are very helpful to consolidate the learning results.	3.86	0.85	high	2
The functions of the learning platform can address your learning needs.	3.83	0.85	high	4
Total	3.79	0.89	high	

According to Table 5, the study found that Learning innovation is at a high level (M=3.79, S.D.=0.89). Among them, according to the research results, from the highest level to the lowest level is:

"Using the Internet and electronic devices and learning platforms are very important in the learning process" is the highest level (M=3.89, S.D.=0.84). It is followed by "Learning platform practice and test functions are very helpful to consolidate the learning results" (M=3.86, S.D.=0.85), and then "the learning platform can effectively conduct classroom attendance and improve the class attendance rate" (M= 3.85, S.D.=0.82), the lowest level is "When the school network is unstable, the traffic consumed by online learning is within your tolerance" (M=3.61, S.D.=1.05) , as shown in Table 6.

Table 6: Questions classified by variables: Learning support

(n=306)

Items	M	S.D.	Level	Rank
The school attaches great importance to supporting blend learning and provides a satisfactory learning platform.	3.81	0.84	high	7
The classroom multimedia equipment is advanced, and online and offline interactive access is convenient and smooth to use.	3.80	0.86	high	8
Campus Network realizes full coverage of the network and facilitates online learning.	3.82	0.93	high	6
The school network is stable and can ensure the normal use of classroom network teaching equipment.	3.72	0.97	high	9
The school supports the rational use of mobile phones and other mobile terminal devices in the classroom.	3.84	0.91	high	5
The school attaches great importance to supporting the use of the platform to carry out learning activities, and submit daily homework to improve learning efficiency.	3.86	0.86	high	3
The school supports the mid-term and final examinations through the learning platform to reduce the paper assessment.	3.92	0.86	high	1
The online learning resources provided by the school are rich in content and timely updated and highly readable.	3.88	0.87	high	2
The school opens the library and computer classrooms to facilitate blend learning.	3.88	1.00	high	2
The school has a strong mixed learning atmosphere and a good learning environment.	3.85	0.90	high	4
Total	3.84	0.90	high	

Next is "the school attaches great importance to supporting the use of the platform to carry out learning activities, submit daily homework, etc., and improve learning efficiency" (M=3.86, S.D.=0.86), and the lowest level is "the school network is stable and can ensure the normal use of classroom network teaching equipment" ( M=3.72, S.D.=0.97).

#### 4.2. Research objective 2: To study on the guidelines for the development of blended learning management in Accounting Department of Guangxi financial Vocational College.

This study conducted interviews with five managers and administrative teachers of Guangxi Finance Vocational and Technical College by telephone.

## 5. Conclusion

The results were found that the states of blended learning management in Accounting Department of Guangxi financial Vocational College in four aspects was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Learning management and Learning support, followed by Learning of students, and Learning innovation was the lowest level.

Through interviews, this study found that the five interviewees all agree with and support blended learning, and believe that blended learning has greatly improved learning effects, enriched students' learning experience, and promoted the improvement of school teaching quality and made valuable suggestions.

## 6. Discussion

The research in the guidelines for developing blended learning management in the Accounting Department of Guangxi Financial Vocational College. The researcher summarizes the conclusion details as follows:

The states of blended learning management in the Accounting Department of Guangxi Financial Vocational College are at a high level in four aspects. Considering the results of this research aspects ranged from the highest to lowest level were as follow: Learning management, followed by Learning support, Learning of students, Learning innovation. The related to the research of Zhao Lei summarized 14 influencing factors of online learners' continuous learning from four dimensions: learner characteristics, teacher characteristics, course platform characteristics and application environment characteristics, among which Continuous learning intention is the most direct reason.<sup>[1]</sup> Ozkan et al. designed a blended learning concept evaluation model in 2009, and believed that blended learning is mainly affected by three major qualities (system, service and content quality), three perspectives (students, teachers' attitudes and supporting factors).<sup>[2]</sup> Wu, Tennyson Hsia and others believe that learner characteristics, teacher-student interaction, teacher factors, content involvement, technical resources, etc. will affect the effect of blended learning. It can be seen that blended learning is a form for students to carry out learning activities.<sup>[3]</sup> All factors that can affect students' learning activities can affect the quality and effect of blended learning, that is, teachers, student factors, school learning environment, etc. In addition, there are also There are some supporting factors, such as learning platform and equipment quality, network support, etc. Therefore, in this study, the four aspects of Learning management, Learning of students, Learning innovation, and Learning support are mainly studied, and the research results are consistent with the research purpose.

Learning management was at high level. This is because teacher teaching is the most important external factor affecting the effect of students' blended learning, so improving teachers' blended teaching literacy is an important strategy to promote blended learning. The related to the research of Rasheed Abubakar Rasheed pointed out in the research that teachers face many challenges in blended teaching, mainly including teachers Technical knowledge and technical operation, information-based teaching ability, online video production, blended teaching to improve teaching beliefs, etc.<sup>[4]</sup> Sha Jingrong et al. also pointed out that teacher support plays an important role in improving college students' input into blended learning.<sup>[5]</sup> Therefore, teachers should improve mixed teaching literacy and comprehensive ability, and improve educational information literacy, including the use and management of online teaching platforms, the flexible integration of online teaching platforms and offline teaching, the design and application of online teaching videos and other resources, and technical support Classroom teaching innovation and other abilities.

Learning of students was at high level. This is because student learning is an important influencing factor affecting the level of blended learning. The related to the research of Alkış believes that learning motivation is one of the significant factors affecting the effect of blended learning.<sup>[6]</sup> Chen Jing et al. found that in the process of blended learning, learners show investment in aspects such as behavioral investment, cognitive investment and emotional investment, and the combination of individual learners and external environmental factors Under the influence, learning input changes.<sup>[7]</sup> Therefore, first of all, it is necessary to stimulate students' learning motivation, improve students' sense of self-efficacy, correct blended learning attitudes, and improve cognitive levels. Secondly, blended learning is a new learning mode in the era of information technology, but most students still do not understand blended learning, which can easily cause students to be at a loss in blended learning, and easily lead to students' low learning enthusiasm or perfunctory learning treat. Therefore, in addition to teacher system guidance, learning platform configuration and school environment, students also need to have a deep understanding of the theoretical basis, learning paradigm, advantages, policy orientation, etc. Use this information to master and adapt to blended learning. You can also broaden your horizons with the help of distance education, extracurricular practice, peer exchanges, etc., and fully familiarize yourself with the methods and techniques of blended learning in practice, and then consider implementing it. As long as students feel the superiority of blended learning in the process of learning and practice, students will be more receptive, more adaptable, and better able to improve the effect of blended learning. Thirdly, the research of Li Xiaojuan et al shows that learners' online learning behavior significantly affects the performance of blended learning, which is mainly reflected in the improvement of online learning self-efficacy, self-learning ability and knowledge construction level.<sup>[8]</sup> Therefore, in blended learning, attention should be paid to cultivating students' autonomous learning ability, and they can effectively arrange plans and implement them. The learning process should be social learning, encouraging multiple interactions, and the design of learning activities should also be



geared towards student collaboration and participation, promoting the understanding and application of knowledge through participation, collaboration, and sharing. Teachers can optimize the design of online and offline learning activities, flexibly use learning platforms to carry out teaching, integrate online and offline multiple interactions, promote students' active learning, and combine learning platforms to carry out group cooperation and create group learning activities to achieve social Learning, enhance the fun and richness of classroom activities, improve the experience of learning, and attract students' interest in learning.

Learning innovation was at high level. This is because the learning platform is the soul of blended learning. A platform with complete functions, stable system and convenient operation can often achieve twice the result with half the effort. Online resources are an important foundation and premise when carrying out blended teaching online teaching activities, and online resources can only be presented to students with the help of online platforms. Therefore, the quality and effect of the platform will affect students' enthusiasm and enthusiasm for blended learning degree. The school information technology center should improve the functions of the learning platform in time, build the multi-functionality of the network platform, introduce and establish a learning platform in line with the characteristics of the school, and provide operation training for teachers and students to help them reduce the cognitive load. , Improve learning adaptability. At the same time, it is also necessary to continuously introduce, design and develop rich learning resources, including texts, PPT courseware, pictures, videos and other forms of basic and expansive resources to meet the needs of teachers and students.

Learning support was at high level. This is because blended learning not only has high requirements for teachers and students, but also has higher requirements for network conditions and learning environment. Blended learning was born after the application of information technology in education went through the CAI stage, CAL stage and IITC stage. Its origin determines that it has high requirements for network technology and learning platforms. The related to the research of Jia Zhenxia believes that blended learning is mainly manifested in the actual classroom teaching environment with multimedia equipment as the core and the virtual learning environment with network technology as the core.<sup>[9]</sup>The school must increase investment in computer equipment, network multimedia classrooms, information assets, etc., to provide comprehensive guarantees for college students to carry out blended learning, so as to build a modern, digital, and information "highway" for high-quality learning of college students . In addition to facilities and equipment, online learning also has high requirements for information technology networks. From the interviews with school administrators, we learned that at the school level, teachers are very supportive of blended learning, but schools need to jointly improve economically, technically, and resources. If the coverage of the wireless network is still insufficient, especially in the places for students to study independently, if the wireless network equipment is improved to reduce the traffic consumption of students' online learning and other burdens, the blended learning will be better utilized effect.

## **7. Recommendations**

### ***7.1. Teachers should improve information literacy and teaching implementation ability, and pay attention to the learning process of students***

In terms of learning management, teachers are important executors of whether blended teaching can truly reflect the characteristics of flexibility, autonomy, and ubiquity. It is necessary to coordinate and design factors such as course content, learning resources, teaching time, and online and offline connections. This puts forward higher requirements for teachers' teaching attitude, teaching activities, teaching design, teaching ability, teaching information literacy, teaching innovation and other abilities. To adapt to these changes as soon as possible and well, teachers must constantly update their professional knowledge and improve their teaching ability.

### ***7.2. It is necessary to continuously optimize the technical advantages of the platform and provide high-quality learning services***

In terms of learning innovation, the learning platform is the product of the integration of information technology and education, and is an important factor influencing the implementation of blended learning. Therefore, there are many choices of learning platforms. We can compare the learning platforms with relatively high evaluations, and select the learning platforms with complete

functions and outstanding advantages to carefully build and improve them. The choice of learning platforms lies not in many but in essence. Pay attention to the inspection of platform quality, from interface navigation design to specific module content design, grasp and solve core technical problems, build multi-functionality of network platform, such as platform network fluency, completeness and ease of use of learning platform functions, improve student learning experience. Online learning terminal equipment is an important "weapon" for students to carry out blended learning, and it is necessary to ensure the learning equipment held by each student. Schools need to regularly update and add public online use equipment in formal learning places, such as multimedia equipment in classrooms. Only by improving the quantity and quality of online learning equipment can we ensure the smooth development of blended learning and realize the "seamless learning" of students in different situations study.

### **7.3. The school provides supporting services in terms of policy, environment, and basic equipment to provide a good learning environment**

In terms of learning support, 1) From the country to the school to each department, all departments responsible for organizing and managing related teaching work should, on the basis of the Ministry of Education's policy documents on blended learning, schools should step up efforts to publicize and promote blended learning. 2) The school formulates curriculum construction tasks and management systems, pays attention to solving problems such as hardware resources, equipment, and platforms in the school, and strengthens the input of manpower, material resources, and funds. 3) Organize teachers to conduct special training on the use and operation of the learning platform.

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