

Construction and Practice of Practical Business English Teaching Environment Combining Virtuality with Reality

Jianguo Jiang^{1*}, Xin Guan¹

¹ School of Foreign Languages, Zhaoqing University, Zhaoqing, China

Email Address

156371778@qq.com (Jianguo Jiang)

*Correspondence: 156371778@qq.com

Received: 9 October 2022; **Accepted:** 12 November 2022; **Published:** 23 November 2022

Abstract:

Practical teaching is an important part of the cultivation of business English talents. However, limited by such factors as time, space and facilities, such phenomena as poor sense of real experience, weak dynamic interaction, insufficient space for imagination and creation, and weak sense of participation arise. In order to solve these problems in practice teaching, an undergraduate university in Guangdong invested to build a business English practice teaching system, which creates a practical teaching environment combining virtuality with reality, and innovates the practical teaching mode combining virtuality with reality. Its practical teaching process and results demonstrate that the practical business English teaching environment combining virtuality with reality effectively expands the teaching time and space and brings a comprehensive experience and multi-dimensionally interactive learning space for teachers and students, significantly improving the quality and effects of practical teaching.

Keywords:

Combine Virtuality with Reality, Construction of Environment, Teaching System, Practical Teaching

1. Introduction

Traditional business English teaching emphasizes theory over practice. However, it is difficult for students to gain practical experience from boring theoretical knowledge and a small number of case studies, so “applying what they have learned” has become empty talk. The reasons for this are mainly the following five points: First, limited by the site and facilities, practical teaching is forced to be carried out in ordinary laboratories, causing a big gap between the practical effect and the training requirements. Second, the application of modern educational technology is insufficient, making it difficult to break the time and space limitations between “practice” and “teaching”. Third, there is a shortage of teacher team of “dual-qualification-and-skill teachers”, resulting in the weak foundation of practical teaching guidance and the problem of disconnection between theoretical teaching and practical guidance from time to time. Fourth, limited by such factors as commercial

secrets, corporate privacy and insufficient positions, it is difficult for students to obtain first-line job practice opportunities. Fifth, the practical training mode is single, resulting in a lack of authenticity in the practical training scenario and the professionalism in the practical training content, thereby making it difficult to meet the needs of the training of applied talents in this profession.

In response to the above problems, many colleges and universities have purchased equipment, teaching platforms and teaching software to improve the practical teaching environment of business English. However, this environment generally has problems such as lack of practical opportunities for students, poor sense of real experience, insufficient imagination and creative space, and weak sense of participation, resulting in practical teaching falling into the dilemma of “teachers as the main body and students as the fetters” [1]. With the development of emerging educational technologies, the application of virtual technology has gradually moved from aerospace and medical experiments to ordinary disciplines. Meanwhile, it is increasingly a hot topic to explore the use of virtual technology to build a realistic practical teaching environment that can enhance learning experience and to explore the practical teaching mode of combining virtual simulation experiments and physical experiments. This paper takes the Business English Practice Teaching Center of our school as an example to discuss the construction ideas and operational strategies of practical teaching environment combining virtuality with reality.

2. Business English Practical Teaching Environment Combining Virtuality with Reality

Virtual technology is of particular value in building learning environments that do not only simulate the real world, but also transcend the limitations of time, space, and people’s physiological senses to restore real-world scenes [2]. The virtual technology is integrated into physical education and a practical teaching environment with the combination of virtuality with reality and complementary advantages is established. The training of the combination of virtuality and reality can effectively solve the problems such as single teaching form, lack of practical training opportunities, poor sense of real experience, and low learning efficiency in the traditional teaching process. Business English whose scenes usually have occupational characteristics is a language communication in a specific environment. The use of virtual technology to create learning scenes can enable students to predict the scene and improve on-site adaptability, thereby greatly extending the learning and practical training space [3]. Placed in this virtual or real learning situation, students acquire knowledge, skills and attitudes through practice and reflection, which are inseparable from life scenes.

The practical teaching environment of business English combining virtuality and reality is characterized as follows: 1) It is a multi-dimensional, virtual and realistic space (place); 2) Most virtual environments overlap with physical environments, which can best restore the real situation and create a rich business environment and learning atmosphere in combination with the real scene; 3) The presentation methods (from text to image, from two-dimensional display to three-dimensional presentation and from virtual experience to physical training) are diversified; 4) Rich functions and flexible interaction methods can effectively stimulate learning motivation and bring students positive emotions such as relaxed, interested and eager to participate[4,5]; 5) Students can enter this environment at any time to immersively explore and produce “learning behaviors”, repeatedly conduct simulation training, master skills and complete real training as planned to improve students’ professional quality; 6) The

student dynamics can be known in time to implement accurate teaching, achieve scientific management, optimize the teaching process, management process and learning efficiency, and improve the practical teaching quality and service management level.

3. Construction Plan

3.1. Environmental construction

Based on the principle of serving the practical teaching of business English, the practice teaching environment combining virtuality and reality aims to expand students' training space and cultivate students' professional skills and innovation and entrepreneurship ability, which can achieve all-weather and all-round practical teaching and management both inside and outside the school. Internally, it is an important place for teachers and students to practice teaching, an effective way to expand experimental training and an operating carrier of teaching reform and management services, and externally, it is the crystallization of school-enterprise cooperation, the bridge between enterprises and schools, and the cradle of industrial talent training. It includes three parts: virtual environment, real environment and intelligent environment, where virtual environment relies on virtual technology, multi-dimensional speech recognition, artificial intelligence and other technologies to create a strongly interactive, highly authentic and creative training scene with students as the main body, the real environment includes training base, mass entrepreneurship and innovation base, practice base and other places and the smart environment includes intelligent recording and broadcasting room, intelligent learning platform and WeChat official account, evaluation management system, as shown in Figure 1.

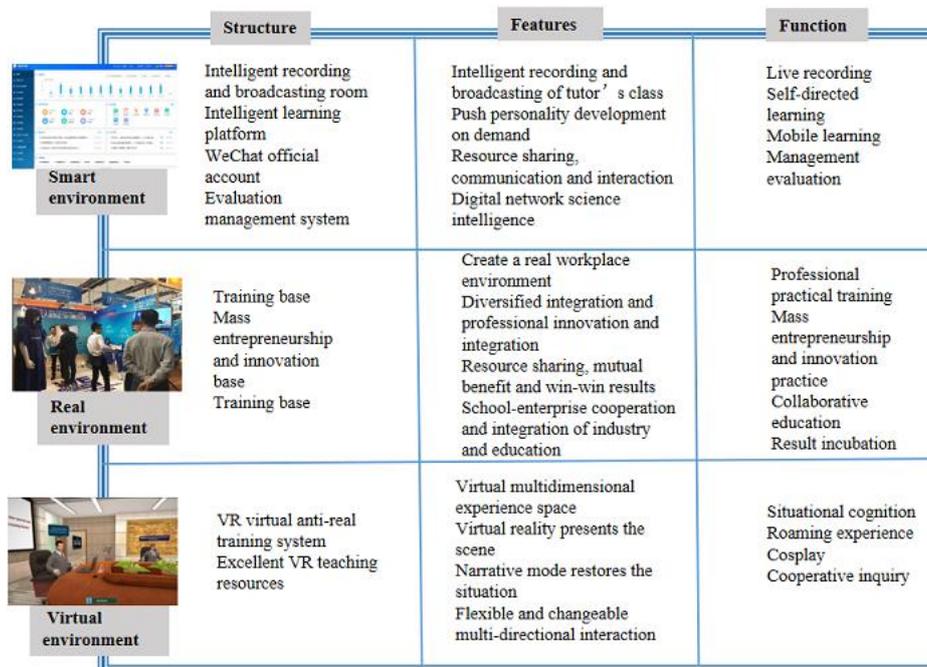


Figure 1. Practical Teaching Environment Framework of Business English Combining Virtuality and Reality.

(1) Create a virtual anti-real training environment. The virtual anti-real training system consists of “Experimental Teaching System for Business English Virtual Simulation”, “Marketing Simulation System”, “Cross-border E-commerce

Comprehensive Training Platform”, “Comprehensive Training System for International Trade” and other subsystems. This system builds virtual scenes and learning scenes, flexible and diverse interaction links and learning content with the virtual reality technology, multi-dimensional speech recognition technology and artificial intelligence technology to extend the themed modular learning of business activities to the immersive experience training of case scenarios and carry out training drills through role playing, team cooperation and other forms to create a strongly interactive, highly authentic and creative training mode with students as the main body to maximize students’ practical skills and comprehensive application ability. In the virtual environment, students really become the main body of practical training, effectively enhancing their learning interest and motivation, enhancing learning experience, and significantly improving the effect and quality of practical teaching.

(2) Build a practice base of “three realities and one incubation”, specifically including business training, mass entrepreneurship and innovation practice, corporate internship and achievement incubation base. The business training base includes 3 intelligent training rooms, namely, “Business English Comprehensive Training Room”, “International Trade Comprehensive Training Room” and “International Business Negotiation Training Room”, which can accommodate more than 200 students to carry out various comprehensive, designed and exploratory experimental training projects at the same time. The mass entrepreneurship and innovation practice base aims to improve the innovation spirit and practical ability of students in this major and to cultivate innovative and entrepreneurial talents, including “Alibaba cross-border e-commerce talent training base”, “cross-border e-commerce talent training base of Duanzhou District Bureau of Commerce, Zhaoqing” and “e-commerce training platform of Science Park, Zhaoqing University”, which are used to cultivate students’ mass entrepreneurship and innovation training projects. The “Internet maker space”, “Challenge Cup”, “Maker Guangdong” and other “entrepreneurship and innovation competitions” are carried out to improve students’ entrepreneurship and innovation capabilities. The enterprise internship and results incubation base is the crystallization of school enterprise cooperation. The internship bases currently built include a number of enterprises in Pearl River Delta such as Guangdong Aizhe Lighting Technology Co., Ltd., Shunbo Creative Industry Incubator Co., Ltd. and Shenzhen Baibaidaniu Technology Co., Ltd.

(3) Create a smart education environment. Explore the use of emerging information technology and modern educational methods to create a smart education environment. An intelligent recording and broadcasting room, a network live broadcast room, a cloud video conference room, and a teaching resource production room have been established to realize the functions of dynamic holographic recording, remote live broadcast and digital resource production of the practical teaching process, thereby breaking the time and space limitations such as teaching and learning as well as guidance and practice in traditional practical teaching, and promoting the deep integration of information technology and practical teaching. The use of intelligent learning platform and assessment management system has achieved independent learning, teaching management and intelligent assessment. Students can flexibly choose learning content according to their own development needs and actual ability level, so as to achieve individualized teaching and accurate push. By changing the traditional management mode of manual data collection and archiving, the intelligent and scientific management of platform resource optimization sharing and practical teaching operation is achieved and the intelligent assessment is achieved through

intelligent review, teacher-student assessment, data analysis and other functions. The official account is used to carry out information release and knowledge point intensive training to achieve mobile learning.

3.2. Construction of teaching system

The training objectives of compound and practical talents based on language, skills, entrepreneurship and innovation, and professional application ability have been formulated. According to the requirements of the four ability training stages of “basic practice”, “professional training”, “mass entrepreneurship and innovation expansion” and “social practice”, a number of practical teaching projects including “basic ability training”, “business skills training”, “innovation and entrepreneurship competition”, and “corporate internship” have been established, integrating and innovating the four links of cycle practice teaching mode, using a variety of ways and implementing diversified assessment. The practical teaching system is well structured and closely linked, so teachers can carry out diversified practical teaching activities according to the teaching plan and students can flexibly choose learning methods and contents according to their own development needs and actual ability level, that is, student can achieve “independent learning”, “virtual experience”, “practical training” and “collaborative generation”. Through the training of combining the virtuality with reality, the reality is really complemented with the virtuality, thereby promoting the combination of theoretical knowledge and practical operation, and significantly improving the students’ ability to solve practical problems, as shown in Figure 2.

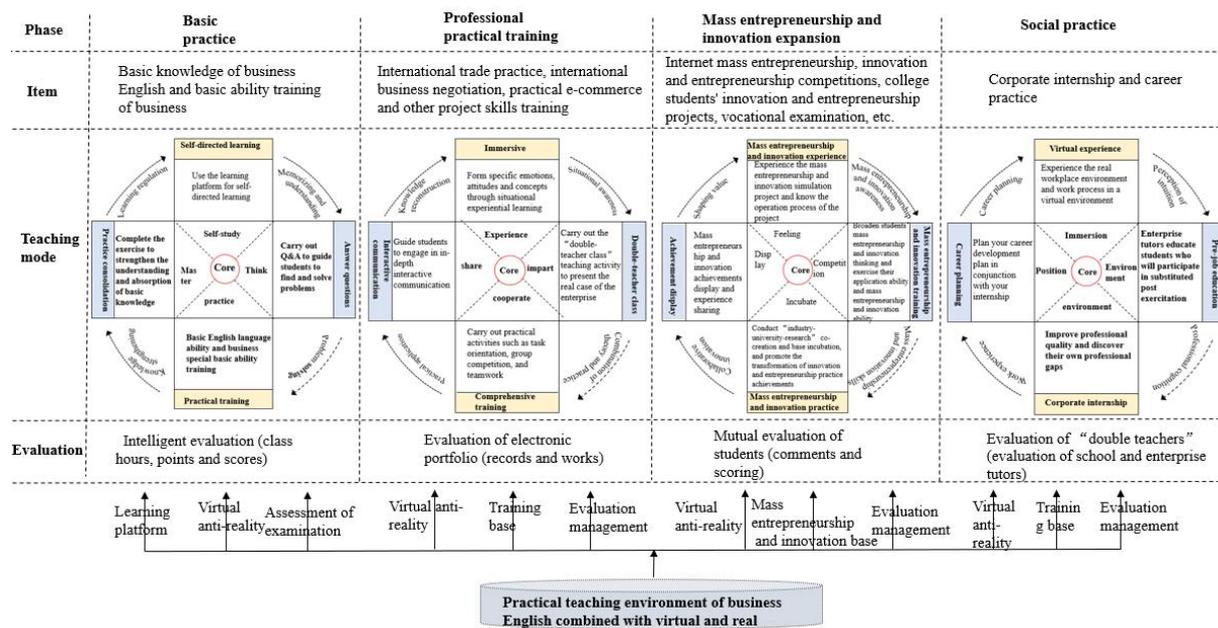


Figure 2. Business English Practical Teaching System Combining Virtuality with Reality.

(1) Teaching stage and teaching project. The practical teaching of business English follows the principle of profound foundation and emphasis on practice, and the teaching project corresponds to the progressive progression of four teaching stages. 1) Basic practice: it is mainly based on professional basic knowledge and business basic ability training, including listening, speaking, reading, writing, translation and other courses and projects, to cultivate students’ language use and cross-cultural communication skills. 2) Professional practical training: It carries out intensive

training of common business activities, business scenario simulation operation, business role performance training, including marketing, cross-border e-commerce, business negotiation and other projects, to consolidate professional knowledge, improve practical operation skills, and enrich practical work and social experience. 3) Mass entrepreneurship and innovation expansion: It focuses on the application of professional skills and innovation and entrepreneurship training, including Internet mass entrepreneurship, college students' innovation and entrepreneurship and other projects, to promote students to reasonably use knowledge and skills to solve practical problems and improve their entrepreneurship and innovation ability[6]. 4) Social practice (a comprehensive inspection of the professional knowledge, vocational skills, working ability and related quality requirements that graduates of this major should have): It focuses on corporate internship and vocational practice [7].

(2) Four-link practical teaching mode of combining virtuality with reality. The basic process of the "four-link teaching method" includes experimental observation, reading discussion, inductive summary and practice consolidation. However, its teaching process is not fixed, and it can be adjusted according to different teaching contents [8]. The four-link practical teaching mode of combining virtuality with reality organically combines virtual experiments with on-site practical training, and four teaching links are set up in each teaching stage to implement corresponding practical teaching at different teaching stages. The basic practice includes "independent learning", "answering questions", "practical training" and "practice consolidation", professional practical training includes "immersive", "dual-qualification-and-skill teachers' class", "comprehensive practical training", "interactive communication", mass entrepreneurship and innovation expansion includes "mass entrepreneurship and innovation experience", "mass entrepreneurship and innovation training", "mass entrepreneurship and innovation practice" and "achievement display" and social practices include "virtual experience", "pre-job education", "corporate internship", and "career planning". In the teaching activities of each link, in accordance with the requirements of teaching target positioning, the teaching concept of "virtual and real integration and virtual promotion with reality" is used to organically combine the virtual experiment with real practice, organically integrate the theoretical teaching with practical teaching, and effectively connect the on-campus practice with the off-campus practice.

(3) Diversified assessment methods. As an important part of the practical teaching process, teaching assessment is not only the main means to assess students' learning, test the effect of practical teaching, and achieve the purpose of practical teaching, but also the main link to measure the quality of talent training[9]. The practical teaching assessment combining virtuality with reality can realize the functions such as intelligent scoring, self-assessment, mutual assessment and teachers' comments through data collection and data analysis in the process of practice. This quantitative assessment based on data can reduce the subjective deviation of a single assessment, and has a certain degree of objectivity and fairness. In addition to focusing on summative assessment, we pay more attention to formative assessment and apply diversified assessment methods to all teaching stages. 1) Intelligent assessment: automatically generate class hours, grades, learning reports and other information through data collection and analysis such as access control clock-in, online hours, and exercise completion [10]. 2) Assessment of electronic portfolio: use electronic portfolio to record the training process of learners, such as the number of works and completion of information. Students can see their own progress and shortcomings by

reviewing their own works and teachers can also know the learning situation of each student by analyzing the electronic portfolio, so as to teach students in accordance with their aptitude. 3) Students' mutual assessment: establish students' mutual assessment standards, evaluate and motivate students with indicators such as mastery, cooperation spirit and team contribution, and adopt interactive methods such as online achievement display, offline defense report, and communication to evaluate and enhance student participation. 4) "dual-qualification-and-skill teachers" assessment: teachers evaluate students' personal performance, teamwork, project completion, etc. in the process of practice. Experts outside the school evaluate the students' ideological performance, professional ability and other aspects in the process of practice.

3.3. Teacher training

Having signed agreements with a number of enterprises, the college sends teachers to the enterprises in batches to take a temporary post, participate in the production and management activities of the enterprises, provide professional theory and technical support for the enterprises, obtain industry work experience and vocational skill level certificates through various types of training organized by the enterprises, while the enterprises accordingly send professional talents to the college to teach front-line work experience, study in the school, enrich their own theoretical knowledge, receive training on "dual-qualification-and-skill teachers" in an orderly manner, establish a mass entrepreneurship and innovation teacher training system, select teachers to participate in innovation and entrepreneurship guidance training classes, actively participate in the guidance of mass entrepreneurship and innovation competition projects, carry out innovation and entrepreneurship practice by using industry education integration projects, increase the training of "mass entrepreneurship and innovation" tutors, change teachers' smart teaching concept, encourage teachers to carry out smart teaching, innovate practical teaching mode, guide students to carry out in-depth participation, diversified interaction, and open and co-creative practical activities, and improve teachers' curriculum teaching ability and practical guidance ability [11]. After several years of efforts, the proportion of double-qualified, innovative and capable teachers has reached 80%. Several teachers have been employed as an industry consultant, vocational trainer and entrepreneurial consultant. In addition, the college has also employed many industry experts and foreign teachers to participate in teaching and guidance throughout the year. The teaching team with both high theoretical and cultural quality and strong practical teaching ability is the fundamental guarantee for the quality of the application-oriented talent training in this major.

4. Application Practice

4.1. Practical teaching cases

The course of international business negotiation is highly practical and operable. During the implementation of practical teaching, it is largely limited by the site and facilities. The practical teaching environment of business English with combining virtuality with reality can enable students to design learning tasks according to the instructors, carry out various forms of learning, deepen students' perception, memory and understanding of knowledge, enhance learning interest and motivation, enhance learning experience, and overcome students' poor sense of real experience, insufficient space for imagination and creation, and weak sense of participation. This

paper takes the experimental teaching of “International Business Negotiation--Application and Discussion of Business Negotiation Strategies” as an example for discussion. In this chapter, practical teaching focuses on students’ practical ability, so that students understand and consolidate theoretical knowledge in the process of practice, master relevant strategies and application skills of business negotiation, and form specific emotions, attitudes and concepts imperceptibly.

The teaching activities are targeted at 35 students from Class 1, Grade 2 of Business English Major in our college. Before the experiment, the students have received the theoretical teaching of this chapter, and have a relatively deep understanding of the theoretical knowledge. 4 links (each link takes 45 minutes (1 class hour)) including “immersive”, “dual-qualification-and-skill teachers’ class”, “comprehensive training” and “interactive communication” have been designed for this teaching practice. During the implementation process, the teaching objectives, teaching content, teaching process and teaching results are assessed in a formative manner, as shown in Table 1 (the figure in the table is the teaching experiment site).

Table 1. Teaching Experiment of “Application and Discussion of Business Negotiation Strategy”.

Instructional design					
	Immersive	dual-qualification-and-skill teachers’ class	Comprehensive training	Interactive communication	Formative assessment
Target	Correctly understand and master the relevant concepts of negotiation strategy	Have a preliminary understanding of the application methods of business negotiation strategy application scenes	Form specific emotions, attitudes and ideas	Inspire each other, complement each other’s thinking, and find their own gaps	Understand the students’ learning situation and discover problems in teaching in time
Content	Principle negotiation strategy, virtual-real strategy, win-win negotiation strategy, cannibalization strategy, etc	Business negotiation strategy application case study and career experience sharing	Group simulation training of business negotiation strategy application cases	Knowledge schema drawing and sharing, and practical training video playback	Whether the content is properly selected, and whether the key points, difficulties and critical points are outstanding
Process	1. Conduct experiential learning in a virtual learning environment. 2. Complete	1. Use the cloud live room for industry tutor teaching. 2. Teachers	1. Create a case scenario of “business negotiation strategy” and let learners practice in	1. Draw a mind map of knowledge points and upload it for sharing. 2. Watch the	Whether it meets the requirements of teaching content and teaching objectives;

	the task of situational learning as required and make systematic feedback evaluation. 3. Complete the after-school exercise and submit it to the system for evaluation.	in the school conduct on-site tutoring, Q&A and consolidation exercises. 3. Conduct interactive Q&A between teachers and students.	groups. 2. Teachers and other learners observe and record, and the intelligent recording and broadcasting system records the whole process. 3. Interactive comments between teachers and students.	training video for group discussion. 3. Summarize and reflect on training performance.	whether the teaching ideas are clear; whether the teaching methods are appropriate; whether the teaching objectives have been achieved.
Effect	Learners are placed in situations and gradually deepen their knowledge and understanding of concepts through repeated observation, practice, and exercise.	Learn from the advanced experience of the industry, improve the practical operation ability, and experience and form the preliminary professional judgment ability.	Strengthen students' awareness of teamwork and experience sharing, cultivate their reflective learning ability, and form a learning awareness of continuous exploration and reflection.	Students inspire each other, complement each other's thinking, mobilize the original cognitive structure, and realize and produce new cognitive structure through the internal integration of thinking.	Analyze students to form value judgments. It is conducive to guiding the development of practical teaching and effectively regulating students' learning process.

4.2. Investigation and analysis

After the teaching activities, we assessed the effect of this practical teaching in the form of questionnaires. The questionnaire is designed with the Likert five-level scale method, including 3 first-level indicators such as "learning effect", "learning experience and feeling", and "student acceptance" and 13 second-level indicators including "application of business negotiation strategies to new scenes", "realistic situation, strong sense of experience and impressive", "highly targeted teaching cases, comprehensible characteristic, acceptance and participation", to understand students' use of a practical teaching environment combining virtuality with reality, and learning effect and experience after the teaching mode. The statistical results are shown in Table 2, where the selection of "very consistent" and "relatively consistent" for the 4 second-level indicators under the first-level indicator "learning effect" reaches 80% in total, the highest option (100%) is that "students can correctly write or say the content of business negotiation strategies", showing that students have reached an extremely high level of memorization, understanding and transfer of the learned content, and the selection of "very consistent" and "relatively consistent" for other indicators has exceeded 60% in total, showing that most of the students hold a positive attitude towards the teaching environment and teaching mode. 85.7% students think they can

stimulate their own learning motivation and bring positive emotions such as interest and eager to participate, and 80% students say they are easy to adapt to this new teaching environment and 91.4% students express a strong desire to continue to participate in similar teaching activities. It is worth noting that from the lowest two options (65.7%), namely, “realistic situation, strong sense of experience and impressive” and “cultivating students’ ability to analyze and solve problems independently”, we found the virtual simulation training system also has its limitations in this teaching activity. No matter how high the reality of the virtual scene is, there will always be some differences between it and the real scene, which may be the main reason for students’ low ability to analyze and solve problems independently. Later, we will strengthen practical training in real situations, and strive to improve students’ ability to solve practical problems with “virtuality as a supplement, reality as the main” [12].

Table 2. Investigation and Analysis Results of Practical Teaching of Business English Combining Virtuality with Reality.

First-level indicator	Second-level indicator	Very consistent	Relatively consistent	Average	Rather inconsistent	Very inconsistent
Learning effect	Write or say the content of “business negotiation strategy” correctly	65.7% (23)	34.3% (12)	0.0% (0)	0.0% (0)	0.0% (0)
	Explain the definition and principles of “business negotiation strategy” in own spoken language and words	48.6% (17)	42.9% (15)	8.6% (3)	0.0% (0)	0.0% (0)
	Analyze the advantages and disadvantages of the application of “business negotiation strategy” in different scenarios, as well as its impact	40.0% (14)	45.7% (16)	11.4% (4)	2.9% (1)	0.0% (0)
	Apply “business negotiation strategies” to new scenes	34.3% (12)	45.7% (16)	11.4% (4)	8.6% (3)	0.0% (0)
Learning experience and feeling	Realistic situation, strong sense of experience and impressive	31.4% (11)	34.3% (12)	17.1% (6)	11.4% (4)	5.7% (2)

	Cultivate students' ability to analyze and solve problems independently	28.6% (10)	37.1% (13)	17.1% (6)	11.4% (4)	5.7% (2)
	Helpful for students to exchange and share learning experience	31.4% (11)	40.0% (14)	20.0% (7)	5.7% (2)	2.9% (1)
	Enhance the awareness of cooperative learning with peers	40.0% (14)	37.1% (13)	14.3% (5)	5.7% (2)	2.9% (1)
	Stimulate motivation to learn and bring positive emotions such as interest and eager to participate to students	40.0% (14)	45.7% (16)	11.4% (4)	2.9% (1)	0
Students' acceptance	Teaching cases are highly targeted and easy to understand, accept and participate	37.1% (13)	37.1% (13)	14.3% (5)	8.6% (3)	2.9% (1)
	The methods/models used in this teaching experiment are easy to accept	42.9% (15)	37.1% (13)	14.3% (5)	5.7% (2)	0
	The system (environment) is easy to use and the experimental process is clear	45.7% (16)	34.3% (12)	14.3% (5)	2.8% (1)	2.8% (1)
	Willing to continue to participate in similar teaching activities if possible	54.3% (19)	37.1% (13)	5.7% (2)	2.8% (1)	0

5. Conclusions

The construction of a practical teaching environment of business English combining virtuality with reality expands the depth of business English practical teaching, enriches students' practical experience, promotes the improvement of practical teaching effect, effectively solves the existing problems in business English practical

teaching mentioned above, and lays a solid foundation for the reform of business English practical teaching and the sustainable development of this major. In the future, the teaching environment needs to be constantly improved and changed, and the teaching methods, learning objects, teaching effects and evaluation methods supported by the teaching environment need to be deeply studied, so as to better guide the practical application and give full play to its advantages and values.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

Funding

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

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