

A New Study Abroad Model Based on VR Technology

-- Take Spanish-speaking Countries as An Example

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Abstract

Under the influence of the international environment, many students studying Spanish choose to study abroad (Spain, Mexico, Cuba and other Latin American countries) for further studies. The choice of going abroad also faces various unstable factors, such as family economic conditions, foreign environment and so on. If VR technology can be used to realize "online teaching" and combine it with studying abroad, many problems will be easily solved. This article aims to help students who are willing to go abroad to achieve this goal in the most economical and safest environment through VR technology.

Keywords

Virtual reality; VR technology; Online education; Spanish teaching; Studying abroad.

1. Introduction

With the rapid development of society nowadays, economic and cultural exchanges between China and Spanish-speaking countries have become more frequent. Therefore, China needs a large number of excellent foreign language and foreign affairs talents, and going abroad has become the choice of many Spanish learners. There are also many conditions that need to be met to go abroad. Economic conditions and achievements have also hindered many people from going abroad. The new mode of studying abroad that combines VR and studying abroad can solve most of the problems. This article starts from the starting point of "the combination of VR and studying abroad" to provide students with a more convenient method of studying abroad.

2. Problems Faced By Studying Abroad in An International Environment

2.1. The Impact and Significance of Studying Abroad

Going abroad has a profound impact on cultural exchanges. The degree of world cultural exchanges is constantly deepening, and cultural exchanges are also an important condition for the progress of world culture, and it is an inherent requirement to promote cultural globalization and diversity. When we go out by ourselves, we are not only taking our own culture out of the country, but also an opportunity to experience and learn the culture of other countries. It will greatly promote both personal and social ideological and cultural exchanges. In recent years, China's exchanges with Spain, Cuba and other countries have become increasingly close. The two sides have gradually expanded bilateral trade exchanges, actively promoted cooperation projects such as port logistics, smart cities, and clean energy, and deepened cultural exchanges between the two countries. Therefore, Spanish-speaking talents are even more needed.

You can experience diverse education when you go abroad. Both China and the West differ greatly in teaching concepts and models. The domestic education model is test-oriented education, while Spain is a relaxed and interactive teaching, that is, the difference between active learning and passive learning. Spanish colleges and universities (especially language schools) generally arrange courses in the morning and free time after class. The school

organizes a wealth of social activities in spare time, and organizes corresponding exchange activities for Chinese students' language problems. And the student clubs are mainly based on outdoor exploration, which can not only cultivate students' ability to overcome obstacles independently, but also promote friendly exchanges between students in teamwork. Spain's long history has made it rich in cultural heritage. Apart from studying, students also have time to learn more. Of course, Chinese education also has its advanced features. Going abroad to experience diversified education is like what Mr. Lu Xun said, "using the doctrine", using the strengths of others to make up for the shortcomings of oneself. Each country has its own unique culture, beauty and architectural style. In Spain, we will see many things and beautiful scenery that have never been seen before, and encounter all kinds of people and things with different personalities. They have energy far beyond imagination and are enough to shock people. The impact of this kind of shock on life must be infinite, and it may even have the power to change life at a certain moment. There are so many beautiful things in the world that we need to explore. When we see the vast world and explore it in depth, we ourselves will become more tolerant and open.

2.2. Conditions for Studying Abroad

There are many hard and fast rules for staying abroad. For example: language scores, Commonwealth countries require IELTS scores, each school is different, generally 6.5 points or more; if you choose North America, TOEFL scores must be 90 points or more. If you are applying for undergraduate students, SAT scores are necessary; if you are applying for graduate students, GRE scores are required. Other countries require corresponding minor language grades. If you want to apply for a master's degree in a Spanish university, you need to get a DELE or SIELE B2 or above certificate; and the exchange program between our school and Costa Rica requires a GPA of 3.5 or above, which few people can meet; and Germany needs Telford General materials such as grades, [1] mentor recommendation letter, personal profile, etc.; in addition, proof of property is required. Before going abroad, you need to apply for many asset-related certificates. If you get a scholarship, you can use a scholarship certificate instead; the school will also have special requirements, and different departments may have different majors, such as enough professional course credits; students themselves need to have A certain degree of self-care ability and learning adaptability, if students do not have these abilities, they will undoubtedly add a burden to their studies, and may even be unable to complete their studies. If students have strong learning abilities, especially good language skills, they can communicate with others proficiently and integrate into local culture and life faster. This is a necessary condition to ensure that students study abroad to achieve the expected learning effect; The country's consumption level is relatively high, and the school fees are quite high for Chinese families. Therefore, the annual tuition and living expenses for studying in Europe and the United States (such as Spain) will be a large amount of expenditure. Spanish universities (such as the University of Barcelona, Barcelona) Autonomous University, University of Salamanca, Comptons University, etc.) annual tuition fees can reach 6,000 Euros. Renting and living expenses are also a lot of expenses. For many ordinary families, this is undoubtedly a need to think and measure. The problem. Whether the family's current and future economic income is sufficient to cover the basic expenses of the child's study abroad, including tuition and living expenses, should be one of the important basis for parents to decide whether to send their child to study abroad. [2]

In addition, when universities in Spanish-speaking countries assess applicants' comprehensive abilities, soft power is often the key assessment item. Soft power refers to aspects that can reflect the personal characteristics and abilities of applicants in addition to the rigid requirements such as language scores and professional application requirements. Soft power is mainly divided into academic research, industrial internship or work experience,

extracurricular activity experience, internship work experience, academic competition, volunteer activities, extracurricular practice activities, scientific research projects, experimental reports, and corporate work experience that highlight personal characteristics and abilities. On the one hand, people with these experiences are often able to stand out.

2.3. Uncertainty of Studying Abroad

There are many uncertainties in studying abroad, which are mainly reflected in the economic returns after graduation, whether they can graduate successfully, and personal safety during the study abroad period.

2.3.1. Economic Returns After Graduation

Nowadays, the days of "returnees" are getting more and more difficult. As the army of studying abroad continues to grow, foreign diplomas are gradually losing their aura, and the severe employment situation and the ever-increasing degree of "involution" are gradually depressing fresh graduates. The average base salary of students. Some students and their parents have gradually emerged from the hotly popular study abroad complex: instead of burdening heavy debts upon graduation, it is better to stay in China for university and postgraduate studies and exchange cheaper education investment in exchange for more convenient employment conditions. There are also many young people with the dream of studying abroad that are exploring a "employment first and then return to work" model. They work first after graduating from university, and after accumulating certain work experience and savings, they go abroad to study for a master's degree. This is indeed a manifestation of uncertainty in the economic returns after graduation.

2.3.2. Can You Graduate Successfully

Many foreign schools follow the "lenient entry and strict exit" standard. As the methods and teaching models of domestic and foreign colleges and universities are not the same, their investigations of students are also different. Whether it is the "strict entry and strict exit" adopted by famous foreign universities or the "lenient entry and strict exit" adopted by general colleges and universities, foreign universities are consistent in "strict exit". Students who fail to meet the requirements will not be able to graduate, and universities will not issue diplomas indiscriminately. [3] Taking the one-year master's degree in Spain as an example, when registering for course selection, you need to choose all the courses of the year. The course is roughly divided into three parts: compulsory, elective and thesis. Needless to say, the two parts of compulsory courses and thesis, elective courses are generally selected according to the subjects they are good at, and only a certain amount of credits can be taken to meet the graduation requirements. Another item related to graduation is thesis. The delivery time for graduation thesis is generally in July of the second year, but it is best to find a tutor in the first half of the semester, determine the topic of the thesis, and give yourself plenty of time to prepare the content of the thesis without delaying the course. Moreover, it is not possible to obtain a diploma immediately after graduation from a Spanish graduate student. When it is determined that the credits have been completed, go to the school secretariat to apply for a graduation certificate, fill in the application form and after the payment has been successfully completed, you will get a stamped application form. This application form is a temporary graduation certificate and officially graduated It takes one year to obtain the certificate.

2.3.3. Personal Safety During Studying Abroad

In recent years, when an increasingly large group of Chinese students have gone abroad with beautiful visions to start their study abroad career, enjoy high-quality foreign educational resources and make outstanding contributions to the economic and cultural soft power of the country where they study, study abroad Security incidents happen frequently, and their safety has not been guaranteed as it should be. According to the survey data of Kai Tak Education, in

2020, "safety factor" has become one of the most concerned factors for Chinese students when choosing to study abroad, second only to "quality of education", and concerns about safety have also led to the cooling of young students. For undergraduates and masters students, most of them do not plan to give up studying abroad, but postpone their plans to study abroad. From September 4 to 21, 2020, the global higher education analysis organization QS conducted a survey of 312 international students from 86 countries and 2,689 potential international students from 153 countries. The report shows that 69% of students admit that the international environment has affected their study abroad plans. Among them, 57% plan to postpone enrollment until 2021, and 4% said they don't want to study abroad for the time being. [4]

Behind the frequent occurrence of security incidents in studying abroad, there are individual factors, as well as factors that contribute to the deterioration and uncertainty of the global security situation. Throughout the world, refugees are rushing to Europe. While reflecting the inclusiveness of Europe, it also brings challenges to its security situation, leading to incidents in which some European countries even spend money to send refugees to neighboring countries. Among them, Chinese students studying in Europe (such as Spain) are also affected by the refugee wave. In the face of frequent robberies and even personal injuries, they do not have shelters and people who can provide them with protection of their rights. At the same time, the emergence of various negative news, such as terrorism, foreign discrimination against Asians, and the murder of overseas students abroad, has also inhibited Chinese students from going abroad.

3. Changes in Online Education

In recent years, the online education system has gradually matured, and various learning apps such as Learning Link, DingTalk, and Tencent Conference have appeared. Many universities, middle schools and elementary schools have adopted online and offline teaching methods to improve students' learning efficiency, and teachers' teaching methods have also increased live broadcast, recorded broadcast, and so on. The "White Paper on Online Learning for Chinese Teenagers" jointly issued by the Professional Committee of Educational Rule of Law of the China Education Development Strategy Society, the Youth Moral Education Research Center of Tsinghua University, and Xiguan Finance show that the online education penetration rate in 2019 is 17% in terms of the number of students. The year has been as high as 33%.

The "White Paper" pointed out that online education and offline education are not in a trade-off relationship. Under the influence of external forces in 2020, students' learning styles will suddenly change, but with the recovery of offline teaching, offline training will have a living space. It is not compressed. According to the statistics of Xiguan Finance and Economics, the number of students in K12 online courses has achieved a three-fold increase and retention. At the same time, the number of students in summer offline extracurricular training in 2020 has increased by 30% compared with the same period in 2019.

Many colleges and universities in Spanish-speaking countries have also adopted online education. Our school has a publicly funded study abroad program in Mexico. Students who cannot study abroad due to various reasons can choose to take online courses in China. However, due to the time difference, students often "turn upside down day and night", while studying foreign courses while also taking into account the Mexican courses. Learning through online courses not only fails to integrate into the local cultural environment and learn authentic oral expressions, but it becomes pressure.

4. Combining VR Technology with Studying Abroad

Based on today's more mature online education system, a new online study abroad model can be constructed to help students who want to study abroad but are limited by their family financial strength and the international environment, and this model requires VR technology.

4.1. What is VR Technology

VR technology (Virtual reality technology), that is, virtual reality or virtual simulation technology, it uses computers to generate dynamic and interactive three-dimensional images to simulate the environment, which makes people feel like they are on the scene. A major change in the interactive form and content of the machine. It is gradually applied to research in the fields of education, medicine, museums, etc., and as one of the new teaching modes in education, it surpasses the traditional teaching mode and mainly solves the teaching of "inaccessible, invisible, unmovable, and difficult to reproduce". The key and difficult issues provide educators with more teaching ideas, and at the same time improve the learning atmosphere of students and greatly improve learning efficiency.

VR technology comprehensively simulates a variety of user sensory experiences, making users feel as if they are in a realistic three-dimensional dynamic virtual environment. With the help of perception, interaction, immersion, and conception, it can provide users with an immersive reality experience. When users have strong perceived usefulness and perceived ease of use, their behavioral intentions for using technology are more obvious. The user's perception comes from the "provability" caused by sight, hearing and touch. Provability is an object attribute triggered by the subject's perception of the object. Using virtual reality technology to assist learners in their learning is to mobilize learners' sensory experience. When learners see, hear, and touch virtual objects, they can realize meaning construction from perception to understanding to consolidation.

4.2. How to Realize "Online Study Abroad" Through VR Technology

4.2.1. How Does Virtual Reality Technology Affect Learners

Under the guidance of constructivist learning theory, some scholars have proposed that the immersive experience of virtual reality technology for learners includes interactivity, immersion and presence. [5] Interactivity refers to interacting with virtual objects, events, and scenes through simple interaction mechanisms. [6] The interaction of virtual reality is a mapping of the real world, enabling learners to realize in-depth cognition and reflection through the interaction of operation and feedback. Immersive learning means that learners change their experience or ability through kinesthetic behaviors triggered by interactive objects. Creating a sense of immersion is an important way for virtual reality technology to function. In the virtual reality environment, learners can experience the advanced stages from sensory immersion to consciousness immersion. [7] Presence refers to the virtual experience of learners through complex scenes, and the experience of learning groups through continuous sensory enhancement and multi-person interaction and collaboration. This existence is the result of matching human senses with virtual inputs and outputs. It can be divided into two types: spatial presence and social presence. [8] Therefore, virtual reality, as a tool for deep interaction, can help learners continuously improve the depth of interaction.

4.2.2. How to Achieve "Online Study Abroad"

Take Barcelona, Spain as an example. If it needs to be realized in virtual reality, it is necessary to convert the current situation map of the Sagrada Familia and Mira's house into an electronic file format, and use virtual reality software to carry out a series of drawing and landscape planning and design. Use satellite positioning, site survey and distance measurement to understand the current situation and characteristics of the site, make the base map of the

landscape map, draw the village boundary line and the high line of houses, roads, open squares, etc., and import the base map into the sketch software for modeling to obtain the high Accurate models and real-time rendering can satisfy students' desire to appreciate Spanish landscape culture without leaving home. [9] At the same time, a voice system was added to it, and real-person dubbing was used to exercise students' spoken Spanish and communicative skills. Residents in Spanish-speaking countries are generally warm and hospitable. Teachers can pretend to be local residents and connect with students online to conduct real-time teaching results testing. In addition, NPCs with different era backgrounds and personalities can be added to each designated scene, such as Cervantes, Picasso, Dali and other celebrities. After interacting with them, students can learn about the history and cultural background of the scene, and learn about celebrities. The historical stories, etc., can greatly improve the overall quality of students.

4.2.3. Differences of "Online Study Abroad"

Different from the traditional class mode, students' immersion in the virtual world can arouse learning interest, enhance learning initiative, and provide students with the corresponding language environment and atmosphere. Fully feeling the meaning of language, and being able to actively express one's own feelings and experiences, is of great benefit to Spanish teaching: First, it can break through the limitations of time and space to experience history, culture, mountains, rivers and lakes, thereby establishing students' understanding of nature and traditional culture. Perceptual cognition; the second is to create a transnational real scene that allows students to mobilize a rich emotional experience while feeling the environment. They can break communication barriers in the virtual environment and naturally enter the language communication environment. Strengthen students' language communication and expression skills. Students can also share everything they have learned through online chat, and learn a wealth of knowledge while playing happily.

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