Article

Teaching Application of Computer Virtual Reality Technology in International Education of Chinese Language[*]

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Abstract

With the rising status of China in the world, the status of Chinese language in the world is also increasing. International education of Chinese language can adapt to the trend of economic globalization and promote the development of China in the world. At present, in the international education of Chinese language, the curriculum mainly focuses on theory teaching, the teaching staff needs to be further strengthened, the teaching method is relatively single, and the teaching material content cannot keep up with the development of the times. In the application of the computer virtual reality technology in the Chinese international teaching, the classroom instruction is arranged according to the normal language learning habits, the realistic environment is constructed for the spoken language teaching, and the real classroom and the virtual world are combined to carry on the teaching. Teachers should also improve their teaching level, so as to better promote the development of international education of Chinese language.

Keywords

Computer Virtual Reality Technology • International Education of Chinese Language • Teaching Application

With the acceleration of globalization and the rapid development of the economy in China, China enjoys the rising status in the world and more exchanges with other countries, and thus the status of Chinese language in the world is also rising increasingly. More and more foreigners begin to learn Chinese, which has created good conditions for the international promotion of Chinese (Lit & Shek, 2007). The promotion of Chinese international education, on the one hand, can meet the needs of other countries for Chinese talents, and on the other hand, it is an effective means of communication for the internationalization of Chinese education. International education of Chinese language can well adapt to the trend of economic globalization, constantly enhance the influence of Chinese culture on other countries, enhance the international status of China, and promote the international development of China (Tsai, 2015).

With the constant development of science and technology, the computer virtual reality technology has been widely used in many fields. The computer virtual reality technology is the most important development direction of multimedia technology, mainly for providing users with an immersive sensory experience (Hu, Lv, Xie, Sun, & Yuan, 2017; Peng *et al*., 2014). At present, the computer virtual reality technology has also been applied in international education of Chinese language, which greatly improves the quality of Chinese international education and teaching. We should make full use of high-tech means and techniques to promote the continuous development of Chinese international education.

Computer Virtual Reality Technology

Virtual reality technology is a computer system created by a computer to experience a virtual world. It acts on the users through the vision, hearing, smell, touch and so on, producing the immersive experience. Virtual reality technology integrates various kinds of high-tech technical categories such as graphic image processing, data processing, intelligent technology, network technology and voice processing. It is the further development of simulation technology in contemporary society (Zhang *et al*., 2015).

The virtual reality system is mainly composed of a detection module, a three-dimensional model, a feedback module, a sensor, a control module, and others, as shown in Figure 1.
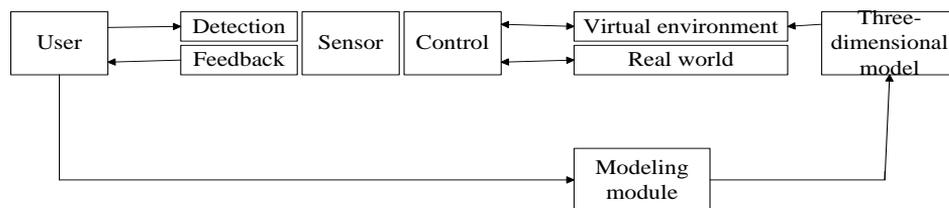

Figure 1. Composition of virtual reality system.

Virtual reality technology has the characteristics of multi-perception, existence, interactivity and autonomy. These features enable the users to enter an interactive and three-dimensional dynamic simulation environment formed by a computer, and produce some inspiration to the users through the interaction of the users with the simulation environment, and with the help of the person's own perception and recognition of the things being

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contacted, so as to obtain the various spatial information and the existing logical information in the simulated environment more accurately (Jian, Qi & Xin, 2011).

Current Situation of Chinese International Education

The international teaching of Chinese language is mainly provided for learners whose mother tongue is not Chinese. At present, Chinese international teaching shows a stronger trend of diversity, specialization and practicality (Liu *et al*., 2017).

Curriculum focuses on theoretical teaching

China pays more attention to the language teaching theory in the curriculum of Chinese international education. Whether it is an elective course or a compulsory course, China attaches great importance to the theory and practice of language teaching, which accounts for the highest proportion, and the proportion of second language acquisition courses is also higher. Compared with the developed countries abroad, the curriculum of China is close to that of the UK, as shown in Table 1 and Table 2.

Table 1
A comparative Analysis of Compulsory Courses

Country	Language courses	Second Language Acquisition Theory and Practice	Language Teaching Theory and Practice	Other cultural courses
USA	34.74%	6.21%	43.23%	15.82%
Britain	19.43%	16.52%	36.52%	27.53%
China	0.00%	30.00%	40.00%	30.00%

Table 2
A Comparative Analysis of Elective Course

Country	Language courses	Second Language Acquisition Theory and Practice	Language Teaching Theory and Practice	Other cultural courses
USA	35.82%	27.16%	6.94%	30.08%
Britain	12.06%	5.46%	31.97%	50.51%
China	7.83%	29.15%	36.71%	26.31%

The teaching staff needs to be further strengthened

There are some problems in the teaching staff of Chinese international education, which need to be further strengthened, mainly from two aspects: first of all, the number of Chinese teachers in international education needs to be improved. At present, the number of Chinese learners at home and abroad is increasing greatly every year, but the number of Chinese teachers is far from meeting the needs of students. Taking the development of China's Confucius Institutes overseas as an example, starting from the establishment of the first Confucius Institute in Korea in 2004, by 2017, 536 Confucius Institutes and 1,196 Confucius Classrooms have been set up around the world, as shown in Figures 2 and 3. More than 2,000 Chinese teachers are required each year to meet the international teaching needs of Chinese language (Wan, Wong & Zhan, 2013). On the other hand, the level

of Chinese teachers in international education needs to be improved. At present, many Chinese international teachers were just graduated from colleges or universities, they only received a short period of training, but lack teaching experience, affecting the improvement of teaching quality.

The teaching method is relatively single

At present, because of the influence of the traditional Chinese teaching, the international education of Chinese language still takes the traditional classroom teaching as the main teaching method, the teachers deliver the course orally on the platform, pay attention to the grammar and vocabulary, and emphasize the writing, but lack the colloquial teaching. This teaching method is relatively single, and the learning process of students is dull and boring. There is a big gap between this teaching method and the flexible and cheerful learning classroom in foreign countries. Therefore, it is not conducive to the promotion of students' interest in Chinese learning (Wu, Zhou, Li, Yi & Yi, 2015).
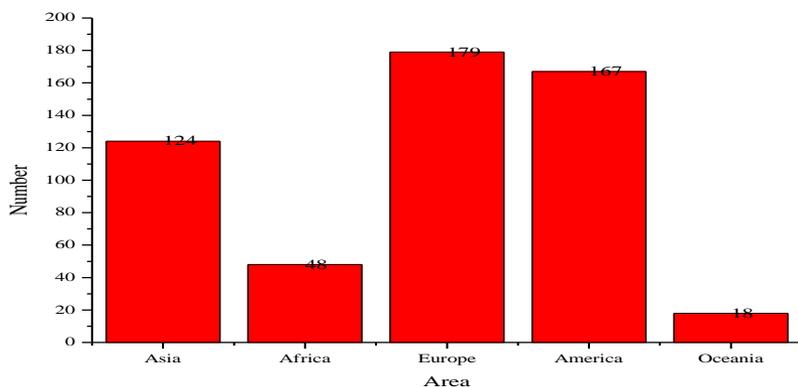

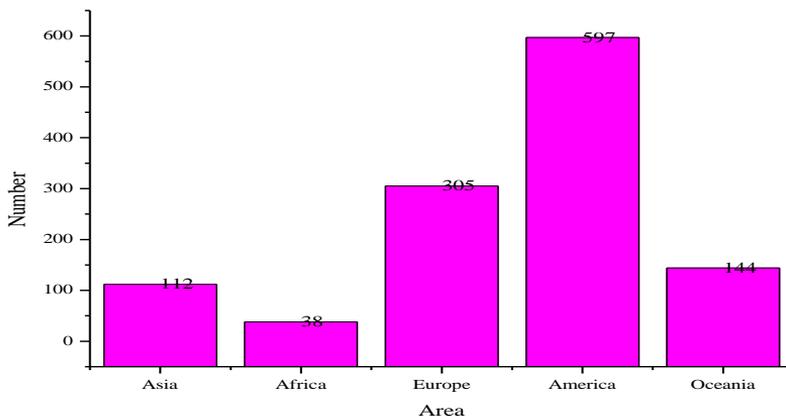*Figure 2.* Quantity distribution of Confucius Institutes on continents in 2017.

Figure 3. Quantity distribution of Confucius Classroom on continents in 2017.

The contents of the teaching materials cannot keep up with the development of the times

Despite the rapid development of Chinese international education, the application of teaching materials has not been adapted to the development of the times, the teaching materials are relatively old, the contents have not been updated in time, and there are no features that can reflect internationalization, so students in other countries are not interested in such teaching materials. In addition, in many textbooks, the notes in the text are in English, but Chinese learning has developed rapidly in other countries except for the English-speaking countries, as shown in Table 3. It is not conducive for teachers and students to make effective exchange of teaching materials in non-native language.

Table 3
Top Ten Countries in the Number of Confucius Institutes

Sort	Country	Confucius Institutes	Confucius Classroom	Sort	Country	Confucius Institutes	Confucius Classroom
1	USA	121	362	6	France	17	3
2	Britain	31	96	7	Germany	14	4
3	Canada	24	20	8	Japan	13	6
4	Korea	19	5	9	Australia	12	42
5	Russia	17	5	10	Thailand	12	14

International Teaching of Chinese Language under Virtual Reality Technology

The application of computer virtual reality technology in Chinese international teaching is not for the purpose of enhancing the attraction, increasing the entertainment, and simply promoting the classroom education to the network, but most importantly, for establishing a learning environment for practicing Chinese daily spoken language.

Arrange classroom teaching according to normal language learning habits

For the beginners of Chinese, it is not necessary to force them to communicate orally from the beginning. After having the basic ability in spoken language and beginning the word study, it's good to complete each exchange task arranged by teachers through listening, speaking, and reading and then practice writing again (He, Xu & Zhu, 2011).

Constructing a realistic environment for oral English teaching

A virtual reality environment for Chinese spoken language learning can be established with computer virtual technology. Through this virtual reality environment, students can engage in dialogue with computers, and through repeated exercises, master some vocabulary, grammar, and others necessary in daily life to a certain extent (Liu *et al*., 2016). In this process, the computer can record the spoken language habits of the students, correct the wrong spoken language in time, and adjust and arrange the learning courses of the spoken language

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in time according to the actual learning conditions of the students, so as to achieve a better learning effect and promote the continuous improvement of students' spoken English.

Teaching of combing real classroom and virtual world

Teachers can improve the students' reading and writing ability through the teaching in the classroom, and can improve the students' writing greatly, and the virtual environment established by the computer virtual technology is mainly to cultivate and improve the students' primary spoken language level and make up for the shortage of classroom teaching to some extent. The teacher's instruction on the students can be an effective supplement to the teaching of computer virtual technology, and answer the difficult problems that students have in the process of learning Chinese spoken language. At the same time, the computer is used to evaluate the effect of students' oral English learning reasonably, and make a reasonable learning plan and scheme according to the students' actual situation.

Improve the teaching level of teachers

The increasingly widespread application of the computer virtual technology in the international teaching of Chinese puts forward higher requirements for the teaching level of teachers, and thus teachers' teaching content and methods will be changed to a certain extent. Teachers should design individualized teaching plans according to the actual conditions of different students, and at the same time, make a correct judgment based on the analysis of the effects given by the computer on students' study, so as to make effective learning plan for students to improve their language learning level. This requires teachers themselves to have a strong theory of Chinese language, but also a thorough understanding of the actual learning of students.

Conclusions

(1) At present, in the Chinese international education, the main characteristics are that the curriculum is based on the theory teaching, the teaching staff needs to be further strengthened, the teaching method is relatively single, and the teaching material content cannot keep up with the development of the times.

(2) In the application of the computer virtual reality technology in the Chinese international teaching, the classroom instruction is arranged according to the normal language learning habits, the realistic environment is constructed for the spoken language teaching, and the real classroom and the virtual world are combined to carry on the teaching. Teachers should also improve their teaching level.

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