



Mobile Interactive Translation Teaching Model Based on “Internet +”

Fang Qiao

Graduate School, Xi'an International Studies University, Shaanxi 710128, CHINA

Hongyin Wang

Graduate School, Xi'an International Studies University, Shaanxi 710128, CHINA

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ABSTRACT

Nowadays, we have entered a new era of globalization and information. The new information technology featured by Internet and computer has permeated every sphere of our lives and affected our viewpoint of consuming and life-style. As for translation teaching, the traditional translation-teaching model cannot satisfy the needs of modern education. In China, the translation teaching based on Internet has become the norm. And more and more people have accepted the mobile learning model. Under such background, this study analyzes the features of mobile teaching and constructs a new model of mobile interactive translation teaching from the perspective of constructivism. The paper also preliminarily testified the new model by taking three different social interactive tools that are most popular in China as example, that is, WeChat, QQ, and Micro-blog. The result shows that this new model based on “Internet +” can improve translation teaching and learning.

Keywords: translation teaching, M-learning, Internet+, interaction

INTRODUCTION

Ma Huateng, the CEO of Tencent, first put forward the concept of the “Internet +” publicly in his article which published in the “People’s Daily” on April 21, 2014. He believed that “Internet +” is a trend, and “+” stands for connecting the Internet with the traditional all walks of life (Wang, 2016; Liu, 2017). Premier Li Keqiang first proposed “Internet + Plan” in the “Government Work Report” at the beginning of 2015, which means that the “Internet +” has been raised to the national strategic level. At the two sessions in 2015, Ma proposed to accelerate the “Internet +”. In this proposal, he explains the “Internet +” as “making use of the Internet platform, information and communication technology to join the Internet and the industries, including the traditional ones together so as to create a new ecology in the new field.”

THE EFFECTS OF “INTERNET +” ON EDUCATION

As with many other industries, education has been greatly influenced by the Internet, and the concept of “Internet +” has brought revolutionary shocks and challenges to traditional educational ideas. The widespread use of the Internet, especially the development of big data, cloud computing and mobile internet technology is profoundly changing the face of education, to promote it to the digital, network and intelligent direction. (Agrawal, 2011) How to confront the education with the “internet+” and then adapt to it? How to promote the level of public education service and elevate the quality of education through the exploration of scientific model of “Internet +

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Correspondence: Fang Qiao, *Graduate School, Xi'an International Studies University, Shaanxi 710128, China.*

✉ 1320450417@qq.com

Contribution of this paper to the literature

- This paper tries to construct a new model which emphasizes students' feedbacks and the interaction between teacher and students, which makes up the deficiency of previous model that neglects student's feedbacks.
- This paper makes an empirical research on the new model which proves the feasibility of the model.
- The mobile tools are diversified in the experiment and comparison is made between those mobile tools, which helps teacher to choose a more suitable way.
- This paper applies the model interaction model based on "Internet+" to the translation teaching, which fills the gap in translation teaching.
- This paper discusses the impact of Internet on translation teaching and tries to construct a new model of mobile interactive translation teaching.
- Experiments have been done to testify this new model by comparing WeChat, QQ and Microblog and the results turn out that the model is positive for translation teaching.

education"? These are not only the unavoidable problems in the process of deepening the reform of education, but also the realistic tasks placed in front of the educators.

To understand the "Internet +" from the perspective of education, we should see that this trend not only innovates the educational technology, but changes the learning and teaching model and has a deep impact on the educational philosophy and system. The effects of "Internet +" thinking on education can be summarized into the following points according to Duță (2015). (1) The closed education resources have become open. Traditional mode of educational resources has been centralized in a relatively closed physical space – the campus, confined to the classroom, libraries, laboratories and other places to meet the needs of a fixed population. The Internet, with its powerful storage and interactive technical advantages, quickly absorbs knowledge and information in a short time, becoming an unprecedented repository of information in human history, and the repository can be expanded constantly. (2) The multiple education institutions have become more diversified. In the traditional education, the school is the main carrier (institute). However, educational resources are re-located and integrated with the help of the Internet +, and the school education has been deeply influenced by social education institutions, new educational organizations due to their flexibility, free of charge and other advantages. (3) The passive learning changed into active. In the traditional teaching model, students are placed in the classroom to do their learning according to the school curriculum. However, they can learn anywhere and anytime, getting rid of full dependence on the classroom and books, under the environment of Internet as long as the network can be linked. During learning, people can choose their own courses and share lessons, and the learning process and outcomes can be assessed by themselves and others. (4) The teaching mode has been changed from indoctrination to interaction. The Internet has changed the traditional teacher-centered mode of teaching and students' dependencies on teachers are significantly reduced as teachers are no longer the only source of knowledge. Teachers are now more focused on communication and feedback.

MOBILE LEARNING

With the popularity of wireless coverage and smart phones, the Internet is developed from the "computer era" to "mobile Internet era". According to statistics (2015) the 39th "China Internet Development Statistics Report", released by the China Internet Network Information Center (CNNIC), China's mobile Internet users increased progressively year by year, as shown in [Figure 1](#).

Until December 2016, Chinese Internet users has reached 731 million, occupying 53.2 percent of the total population, equivalent to the total population of Europe. Among the 95.1 percent netizen who used the mobile phones to access the Internet, the students have accounted for 46.4 percent. The rate of students' ownership of smart phone is much higher than the computer. Compared to the computer-based registration MOOC (Massive Online Open Course) platform, learning with wireless mobile devices is clearly more portable and extensive, that is also the reason of Mobile learning's appearance.

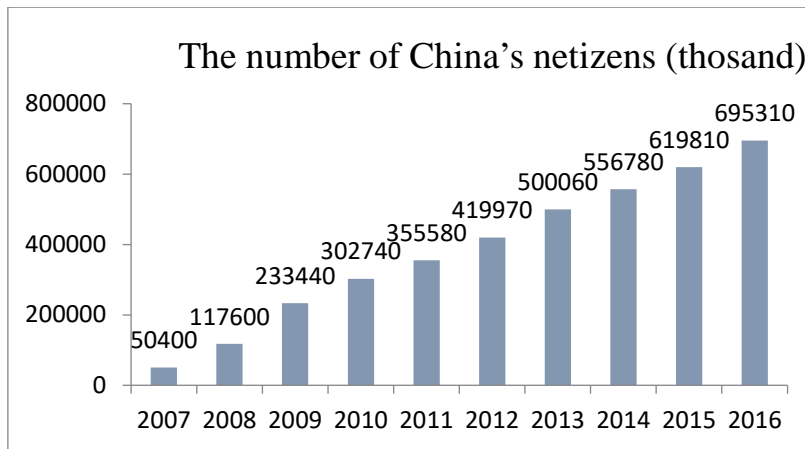


Figure 1. The number of China's netizens

Mobile learning, written as M-Learning, was introduced to China in 2000 by Boticario (2000), an Irish distance education expert. In Boticario's opinion, the next generation of learning will shift from distance learning and e-learning to mobile learning (Ally, 2016; Lim, 2016; Huang, 2015). As the name implies, mobile learning is different from traditional learning lies in its focus on "mobile", terminal equipment, learning environment, the realization of technology is mobile. Learners are not limited to follow the schedule time to stay the designated classroom with the computer (Boticki, 2015; Yang et al., 2017). Moldovan (2014) and other scholars suggested that the terminal equipment of mobile learning should be portability, wireless and mobility. Smart phones are the most widely used tool for mobile interaction with their vast presence and superior performance. Dye et al. (2001) argue that "mobile learning is a learning that happens at anytime and anywhere with the help of a kind of mobile computing device, which must be able to effectively present learning content and provide a two - way communication between teachers and learners in the process of learning." The New Media Consortium Horizon Report (Johnson et al., 2013) in 2013 predicts that mobile learning will be the mainstream in the near future. It can be seen that mobile learning will become a new trend of conforming to the times. The way of how the mobile interactive teaching and learning model works is showed as follows (see Figure 2).

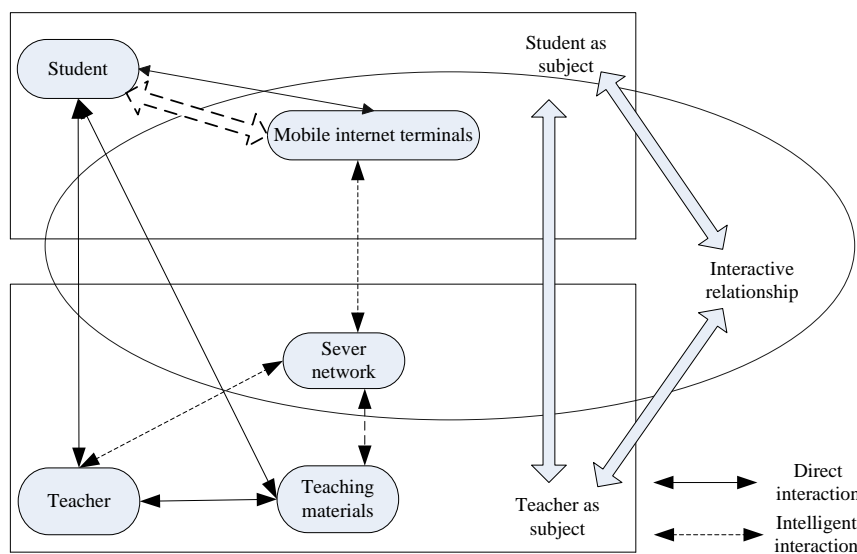


Figure 2. The network structure of mobile interactive teaching and learning

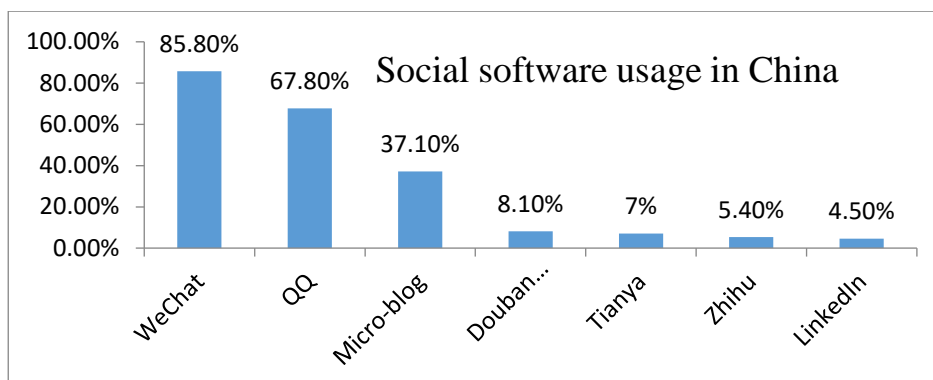


Figure 3. The social software usage in China

Currently, the main M-learning model in China has following types: (1), M-learning through SMS; (2), M-learning through multimedia mail; (3), M-learning through learning software; (4), M-learning through online browsing; (5), M-learning through interactive software. The first four types are less real-time, single-form, and relative expensive. Compared with the first four types, the last type has more advantages, such as powerful interaction, low cost, easy operation and real-time. Thus, the last type is a comparatively ideal for mobile teaching. However, the effect of interactive depends greatly on specific interactive software. In China, the most popular social software are WeChat, QQ and Micro-blog (see [Figure 3](#)).

In the past decade, the trend of Chinese translation teaching revolution is “student-centered” and “taking advantage of Information network technology”. Thus, this study aims to construct a new translation teaching model based on “Internet +” and M-learning.

THE CONSTRUCTION OF MOBILE INTERACTIVE TRANSLATION MODEL BASED ON “INTERNET +”

Theoretical Basis

Constructivism is a branch of cognitive psychology, which was first proposed by the Swiss psychologist Piaget. Constructivism learning theory holds that “collaborative learning” plays a key role in the construction of knowledge meaning. It emphasizes the interaction between students, teachers and students, and the interaction between students and teaching content and teaching media.

Constructivism holds that students are the main body of cognitive activities, not the passive recipients of external stimuli and knowledge (Al-Huneidi, 2012; Luneeva & Zakirova, 2017). The learning and development of learners occur in the interaction with others, and the important role of interaction in foreign language teaching is supported by a lot of empirical researches (Gopnik, 2012; Gilakjani, 2013). Constructivism emphasizes the design of learning environment that in the process of learning, teachers should provide learners with a variety of resources including various types of teaching media and teaching materials and encourage learners to explore and complete the meaning construction so as to achieve learning goals (Denton, 2012; Ertmer, 2013). The importance of this interactive teaching concept used in translation teaching, both domestic and foreign scholars have expounded. The importance of interaction for teaching in translation has been paid more and more attention by experts and scholars in translation field. Kiraly (2000) believes that the essence of teaching of translation is interaction, which is a dynamic interactive process to enhance learners’ autonomous ability. However, in traditional translation teaching, the interaction between teachers and students is limited by the classroom and limited by the number of teaching hours that the chances of interaction are seriously insufficient. Although the traditional E-education of teaching can extend the teaching mode from the classroom into extra-curricular, due to the dependence on wired network and constraints of computers, the teaching effect is greatly reduced.

Table 1. Main functions of interactive tools

Module	Main functions
(1) Private chat	Chatting one-to-one. It supports voice input, text input, file-sending, Video Call and audio call.
(2) Group chat	Chatting in-group. Other functions are as same as (1).
(3) Moments/Qzone	Sharing related materials and experiment.
(4) Official Accounts	Posting related material on certain subjects regularly.
(5) E-mail	Sending and receiving e-mail which can be one-to-one and one-to-many.
(6) Group-sharing	Used in QQ. Saving files for sharing in group

Main Functions of Interactive Tools

At present, some interactive tools that are widely used for M-learning have some common functions listed as follows (see [Table 1](#)).

From the main functions of social platform showed above, we can see that interactive M-learning is no longer limited to specific time and space. Students can learn, share and communicate as long as they have mobile phone.

The Construction of Mobile Interactive Translation Teaching Platform Based on "Internet +"

The paper tries to construct an Internet plus mobile interactive translation-teaching platform based on main functions of interactive tools, which forms a new teaching model showed in [Figure 4](#). Teacher can design different interactive steps under the guidance of Constructivism Theory.

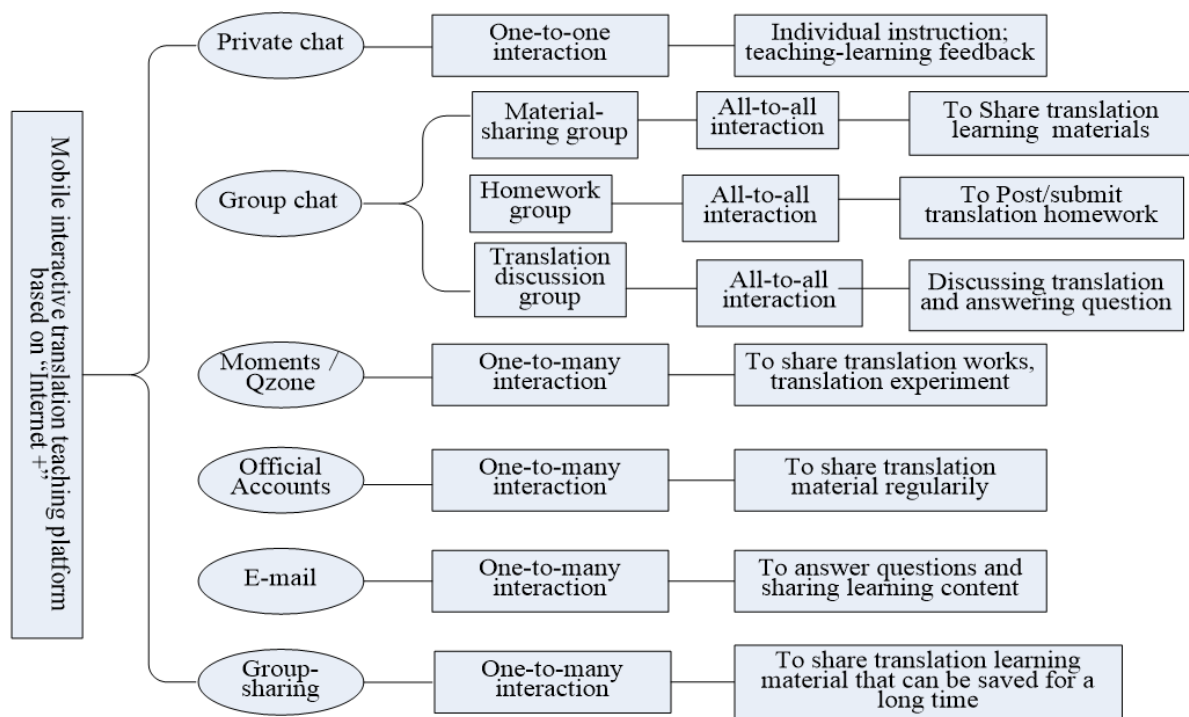


Figure 4. New teaching model based on "Internet+"

The private chat module is one-to-one interaction. Teacher can instruction individually and get teaching-learning feedback. The group chat module is all-to-all interaction. According to the needs of teaching, teacher can build different groups, such as translation material-sharing group, homework group and translation discussion group. Moments (in WeChat)/Qzone (in QQ) module is a one-to-many interaction. Teacher and student can share what they learned, such as translation theories, translation works and translation experience. Official Accounts is mainly used by teacher to share translation materials on different topics regularly. It is also one-to-many interaction. Teacher can use E-mail to share material, answer questions, and collect homework. Compare with private chat, E-mail seems less convenient and less effective in terms of answer students' questions. Group-sharing is mainly used to share files that can be saved for a long time so that students can check the files anytime.

Those functions applied by the platform aim to improve the efficacy of interactive teaching and make translation teaching more convenient. Moore proposed three different interaction types, that is, interaction between teacher and student, interaction between student and student, and interaction between student and learning material (Michael, 1989). The three types of interaction run through the whole model.

EMPIRICAL RESEARCH ON MOBILE INTERACTIVE TRANSLATION TEACHING MODEL BASED ON THE "INTERNET +"

In order to test whether the new mode can promote the interaction in teaching of translation and effectively improve the students' translation ability and can be accepted by the students, we applied the new mode to the translation course, and conducted the applied experimental research for one semester. As WeChat, QQ and Microlog are most frequently used by Chinese, they are taken as typical mobile learning tools here. Through the experimental treatment, excluding the interference of experimental factors, we explore the distinctiveness of the actual effect on experimental factors for the different academic levels of students in aspects such as mathematics achievement and autonomous learning ability.

Experimental Subject

This teaching experiment is based on the third-year students of undergraduate university in five parallel classes who taking the public course of English-Chinese translation taught by me, 160 students as a total to be the object. My school is an ordinary university located in Xi'an with multimedia classrooms and campus network. Among the five classes, Class 1 is the control class and classes from 2 to 5 are the experiment classes, and there are 32 people in each class and the sex ratio is basically the same. And after the initial placement test, there is no significant difference in the overall translation ability of students in each class. For all the junior students who participated in the experiment translation classes, it was their first time to attend translation class and they had never experienced internet-assisted teaching before.

Experiment Preparation

Before the teaching experiment, I created the "translation teaching Micro-blog" and asked the students of the experiment to create their own "translation learning Micro-blog", and I added "translation teaching Micro-blog" being my follower, based on which I created a "translation learning space". At the same time, for different experiment classes, we take different communication tools, such as sharing of WeChat groups and QQ groups, which are mainly managed by the teacher and in the groups, there are sufficient link resources, including the classic translation works study links, English interpreting audio and video links, translation corpus links etc., ensuring that all the information received by different communication tools is the same.

Experiment Parameters

- a. Objective Hypothesis: Implementing the teaching based on the autonomous interactive teaching model, aiming to achieve the objectives as follows, 1) to enhance students' autonomous learning ability, 2) to improve the students' translation achievements, 3) to improve students' learning motivation, 4) to promote students' flexibility of the use of learning methods and 5) to ensure the learning hours of each student the courses are the same in this semester.
- b. Control Variables: Independent Variable: an interactive teaching model based on autonomous learning; Dependent Variable: primary dependent variable-students' autonomous learning ability and their translation achievements.

To control the interference of the teachers, teaching materials, and other unrelated variables on the experiment to the greatest extent, the task of English translation teaching in the experiment class and the control class is still handled by the teacher, and five classes are required to be consistent with the teaching content, teaching progress and the teaching hours in class, including 16 teaching weeks, and class hours per week are 2 hours. The only difference is that the control class is taught with the traditional teaching mode and Experiment class 2 is taught with the new teaching mode. Class 2 uses Micro-blog as the communication tool, Class 3 uses WeChat as the communication tool, Class 4 uses QQ as the communication tool and Class 5 uses all the three communication tools.

Experiment Process

The experiment began in September 2016, ending in January 2017 for one semester. The teaching content of one semester is divided into 16 units, and each unit is strictly conducted as the above four steps. In order to urge the students to continuously and actively participate in all aspects, the teacher has set strict examination standards. And in order to compare the experiment results, before and after the experiment, the Chinese-English translation ability tests were conducted relatively. In order to ensure the reliability of the test results, both the pretest and the post-test were conducted by the same senior translation teacher who does not participate in the study. The test items were both Chinese-English translation, and the two sets of questions were in the same difficulty. In order to ensure the fairness and reliability of the score, after the examination, the three external translation teachers who do not participate in the study are strictly graded according to the score, and the score is not written directly on the test paper, so as not to cause interference to other raters, and the average score of the three teachers is the final score. The result data is analyzed and processed by the social science statistical software SPSS 16.0 to test whether the new mode can effectively improve the students' translation ability. The interaction between the experiment class on the Internet platform and the interaction between English and Chinese translation class in the first semester of the class is compared vertically, and the interaction between the class and the control class is compared horizontally to know whether the new mode can promote the interaction in teaching of translation.

RESULTS ANALYSIS AND DISCUSSION

Analysis of Results

The teaching experiment of interactive teaching model based on autonomous learning is based on the students' learning model and teacher's teaching model as the independent variable and the students' translation performance as the dependent variable. After the teaching experimental study of one semester, the results of the pre-test and post-test comparison of the experiment class and the control class are as the table below.

From **Table 2**, we can see that the average pre-test scores of the experiment class and the control class are slightly different, but with the independent sample t test, there is no significant difference (value of t is about -0.019, value of p is about 0.98 and more than 0.05), that is to say, the level of Chinese-English translation ability of the students in the first five classes is almost the same. While the average scores of the control class and the experiment class were significantly different, the average grade of the control class improved by about 2.06, while the improved scores of the experiment classes are between 7.93 and 10.96. After the independent sample t test, the results show

Table 2. Comparison pretest and protest average scores between experiment class and control class

Class (number)	Application	Pre-test Average grade	Post-test Average grade	Variation
Control class 1 (N = 32)	Traditional teaching	73.61	75.67	+2.06
Experiment class 2 (N = 32)	Micro-blog	73.52	81.45	+7.93
Experiment class 3 (N = 32)	WeChat	73.64	83.37	+9.73
Experiment class 4 (N = 32)	QQ	73.39	82.60	+9.21
Experiment class 5 (N = 32)	Combination of the three	73.59	84.55	+10.96

that there are significant differences between the two classes. The results show that the Chinese-English translation ability of the experiment classes is significantly higher than that of the control class. In addition, after the pre-test and post-test scores of the students in the experiment classes were tested with paired samples t test, the results showed that the scores of the experiment classes were significantly different, that is, after one semester’s teaching experiment, the translation scores of the experiment classes improved significantly. The improvement of teaching with Micro-blog was 7.93, compared with 9.73 and 9.21 of which teaching with WeChat and QQ, improved in small amount, but the increase of the Experiment class 5 used combination tools was 10.96. This shows that the new model is more effective than the traditional model in the cultivation of students’ translation ability. And different communication tools can play a complementary role among each other.

Discussion of the Subjects

The new model can effectively promote the interaction of teaching of translation and the traditional translation-teaching mode is more conducive to improve students’ translation ability, and can be accepted by the students. The main reasons are as follows.

Firstly, interactive teaching can effectively promote the construction and cultivation of students’ translation knowledge. The new model emphasizes the interactions between students and teachers, students and learning resources in teaching of translation, which will penetrate in the whole process of teaching of translation, no matter it is in-class or extracurricular, and it is translation practice, question answering, information resource sharing or translation review, interaction can be carried out at any time. Interaction makes the relationship between teachers and among students become more harmonious, which is conducive to improve the effect of teaching of translation. Secondly, the mobile teaching based on the Internet can really break the restriction of time and space, and realize the ubiquitous teaching of translation. The teaching space extends from the classroom to any place outdoors, the teaching time changes from fixed to anytime and it really gets rid of the shackles of space and time on interaction under the traditional teaching mode. In addition, through the comparison of different communication tools, it is found that QQ which is with group-sharing is better than Micro-blog which is with only one-one and one-more that can be more conducive to teaching interaction. The use of the complementary function between the communication tools can better solve the traditional mode of teaching interaction under the lack of a single problem, the interactive opportunities greatly increased, and the efficiency greatly improved, thus it promotes the development of students’ translation ability.

CONCLUSION

The mobile interactive translation teaching based on the mobile Internet can solve effectively such problems as deficiency of interaction that exists in traditional translation-teaching model and limitation of classroom. Teacher and students can use mobile phone or other mobile communication equipment to communicate at any time and any place. The interaction between teacher and students, student and student, students and learning material become more diversified, personalized, flexible and dynamic. Under the guidance of the teacher, students can construct translation knowledge to improve translation ability through communication with others. Meanwhile, it helps to cultivate critical thinking, creative ability, teamwork spirit, and awareness of sharing. The

new model based on internet and mobile learning is complementary to the traditional class and computer and network assisted instruction. It facilitates the effect and efficiency of translation teaching.

Though this new model has great effect, some limitations cannot be ignored. In this research, due to limited conditions, the experimental samples are relative small. Then the experimental subjects major in other disciplines rather than translation. The experimental subjects can be studied in a more full-scale way. Besides, the participation of teacher, including the degree of the participation and the way teacher participate, can influence the effect in a way. Therefore, the study needs further work on it.

REFERENCES

- Agrawal, D., Das, S., & Abbadi, A. E. (2011). Big data and cloud computing: current state and future opportunities. *International Conference on Extending Database Technology*, 65, 530-533. doi:10.1145/1951365.1951432
- Al-Huneidi, A., & Schreurs, J. (2011). *Constructivism Based Blended Learning in Higher Education. Information Systems, E-learning, and Knowledge Management Research*. Berlin Heidelberg: Springer, 581-591p. doi:10.1007/978-3-642-35879-1_74
- Ally, M., & Tsinakos, A. (2014). Increasing access through mobile learning. *Commonwealth of Learning & Athabasca University*, 64(3), 225-227.
- Boticario, J. G., & Gaudio, E. (2000). Towards a Personalized Web-Based Educational System. MICAI 2000: Advances in Artificial Intelligence. Springer Berlin Heidelberg, 1793, 729-740. doi:10.1007/10720076#page=743
- Boticki, I., Baksa, J., Seow, P., & Looi, C. K. (2015). Usage of a mobile social learning platform with virtual badges in a primary school. *Computers & Education*, 86(C), 120-136. doi:10.1016/j.compedu.2015.02.015
- Denton, D. W. (2012). Enhancing instruction through constructivism, cooperative learning, and cloud computing. *Techtrends*, 56(4), 34-41. doi:10.1007%2Fs11528-012-0585-1?LI=true
- Duță, N., & Martínez-Rivera, O. (2015). Between theory and practice: the importance of ict in higher education as a tool for collaborative learning. *Procedia - Social and Behavioral Sciences*, 180, 1466-1473. doi:10.1016/j.sbspro.2015.02.294
- Dye, A., Solstad, B., & Kodingo, J. A. (2003). *Mobile education-a glance at the future*. http://dye.no/articles/a_glance_at_the_future/in
- Ertmer, P. A., & Newby, T. J. (2013). Behaviorism, cognitivism, constructivism: comparing critical features from an instructional design perspective. *Performance Improvement Quarterly*, 26(2), 43-71. doi:10.1002/piq.21143
- Gilakjani, A. P., Lai, M. L., & Ismail, H. N. (2013). Teachers' use of technology and constructivism. *International Journal of Modern Education & Computer Science*, 5(4), 49-63. doi:10.5815/ijmecs.2013.04.07
- Gopnik, A., & Wellman, H. M. (2012). Reconstructing constructivism: causal models, bayesian learning mechanisms, and the theory theory. *Psychological Bulletin*, 138(6), 1085-1088.
- Huang, Y., & Chiu, P. (2014). The effectiveness of a meaningful learning-based evaluation model for context-aware mobile learning. *Brit. J. Educ. Techn.* doi:10.1111/bjet.12147
- Johnson, L., Adams Becker, S., Cummins, M., Estrada, V., Freeman, A., & Ludgate, H. (2013). *The nmc horizon report: 2013 k-12 edition*. New Media Consortium. <http://files.eric.ed.gov/fulltext/ED559366.pdf>
- Kiraly, D. C. (2001). *A social constructivist approach to translator education: empowerment from theory to practice*. St. Jerome Pub.
- Liu, Z. (2017). *China's strategy for the development of renewable energies*. Energy Sources, Part B: Economics, Planning, and Policy, 1-5. doi:10.1080/15567249.2017.1336813
- Luneeva, O. L., & Zakirova, V. G. (2017). Integration of Mathematical and Natural-Science Knowledge in School Students' Project-Based Activity. *Eurasia Journal of Mathematics Science and Technology Education*, 13(7), 2821-2840. doi:10.12973/eurasia.2017.00720a
- Moldovan, A. N., Ghergulescu, I., & Muntean, C. (2014). Learning assessment for different categories of educational multimedia clips in a mobile learning environment. *Journal of Power Sources*, 196(23), 9931-9938.

- Moore, M. G. (1989). Editorial: three types of interaction. *American Journal of Distance Education*, 3(2), 1-7. doi:10.1080/08923648909526659
- Statistics, C. I. (2015). *China internet network information center*. <http://www.cnnic.net.cn/>
- Wang, Z., Chen, C., Guo, B., Yu, Z., & Zhou, X. (2016). Internet plus in china. *It Professional*, 18(3), 5-8. doi:10.1109/MITP.2016.47
- Yang, D., Tseng, Y., & Wang, T. (2017). A Comparison of Geometry Problems in Middle-Grade Mathematics Textbooks from Taiwan, Singapore, Finland, and the United States. *Eurasia Journal of Mathematics Science and Technology Education*, 13(7), 2841-2857. doi:10.12973/eurasia.2017.00721a

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