

The Effects of Cooperative Teaching Reform on Chinese English Learners' Linguistic Abilities and Non-linguistic Abilities

ZENG Zhihong^{[a,b],*}; YIN Xiaojuan^[c]; ZENG Xiaoying^[a]

^[a]School of Political Science and Public Management, Southwest University, Chongqing, China.

^[b]Post-doctoral Stations of Zhejiang University, Hangzhou, China.

^[c]Department of Foreign Languages, Minjiang University, Fuzhou, China.

*Corresponding author.

Received 5 May 2013; accepted 12 August 2013

Abstract

This paper studies the different effects of co-teaching and traditional teaching on students' English linguistic abilities and non-linguistic abilities in Chinese context. Ninety-one non-English majors in a college in south-eastern China were involved in this experiment. The results of one-way ANOVA showed that the effects of Chinese-foreign teachers' cooperative teaching on participants' linguistic abilities were significantly better than the traditional Chinese teachers' teaching. The results of questionnaires revealed that co-teaching made a greater contribution to students' non-linguistic abilities than the traditional way did. In addition, students held more positive attitudes to co-teaching than the traditional teaching. Finally, reasons that may lead to the results have been discussed.

Key words: Cooperative teaching; Traditional; Alternative; Linguistic abilities; Non-linguistic

ZENG Zhihong, YIN Xiaojuan, ZENG Xiaoying (2013). The Effects of Cooperative Teaching Reform on Chinese English Learners' Linguistic Abilities and Non-linguistic Abilities. *Higher Education of Social Science*, 5(2), 35-41. Available from: URL: <http://www.cscanada.net/index.php/hess/article/view/j.hess.1927024020130502.2792> DOI: <http://dx.doi.org/10.3968/j.hess.1927024020130502.2792>

INTRODUCTION

In recent years, in order to enable students to communicate efficiently with English in their future lives, there is a new trend to reform English teaching methods. The Ministry

of Education of the People's Republic of China encouraged universities to employ foreign scholars or experts to engage in our professional course of bilingual teaching to deepen college English education reform in 2007 (Chinese Ministry of Education, 2007). In fact, foreign teachers appeared after the Opium War, when America, Britain and other countries established religious in our country. At that time, most of the senior positions were held by the foreign teachers (Wang, 2004). As we all know, foreign teachers emphasized on the role of students in class. They encourage students to think actively, find and solve problems. As a result, the class is always vivid and dynamic. Not surprisingly, foreign teachers are not only popular in colleges but also in elementary and secondary schools.

However, the foreign teachers' teaching also exist some disadvantages. For example, they usually don't know Chinese students quite well, which made their teaching lack of purpose and pertinence. Comparative study on the different effects of native speakers and teachers as a second language learners, have made by many researchers at home and abroad. Robert Philip pointed out that it was a potential threat to the students if the native teacher was untrained and disqualified (Philipson, 2001, pp.164-165). Tammy, Jandrey, Hertel, etc. studied the learners' attitudes through a questionnaire, and found that: students prefer to choose foreign teachers to teach pronunciation and culture, but for grammar and vocabulary guidance, they prefer local teachers (Hertel & Sunderman, 2009). Zhu Jinhua discovered that foreign teachers were not suitable for teaching alone under current situation in China (Zhu, 2006). Compared with Chinese English teachers, foreign teachers have their advantages in English pronunciation and culture as well, because they are English native speakers, while Chinese English teachers know Chinese students and education system better. Some colleges made attempts to integrate the foreign teachers' teaching with Chinese English teaching. Consequently, the cooperative teaching between foreign teachers and Chinese English teachers has appeared to answer the call. Then, how about the teaching

effects of co-teaching? This prompts the author to conduct the current study. This thesis deals with the influence of Chinese-foreign cooperative teaching for non-English major students' language ability and non-language ability. The thesis consists of six parts: the first part briefly introduces the motivation and the outline of the current study. The second part gives the definition of cooperative teaching, followed by an overview of the relative studies. The third part focuses on current study, including research questions, hypotheses and method. Part four is the results of the study. The fifth is the discussion of the study. The last part is the conclusion of the study and the limitations and implications of the current study.

1. RELATIVE STUDIES ON COOPERATIVE TEACHING

In the 1960s, William M. Alexander, a pioneer of the American high school, put forward the cooperative teaching. Cooperative teaching rose from American education teaching policy—"No Child Left Behind". It aimed at improving the disability students' language at that time (US Department of Education, 2005). Later, Maroney (1995) summarized the five basic co-teaching forms, a) cooperative teaching, b) complementary teaching, c) parallel teaching, graded teaching and supervision and control of teaching (Maroney, 2009). Then, Friend and Cook (2003) divided the cooperative teaching into six types: a) one teaches, the other observes; b) one teaches, the other patrols; c) site teaching; d) the parallel teaching; e) alternative teaching; f) team teaching (Friend & Cook, 2003, pp.298-299). As for the definition of cooperative teaching, Robinson and Schaible pointed out it refers to the theory that the two teachers are responsible for the same class and complete the same tasks, namely, prepare the same lesson, teach the same contents, deal with the students' work together, and check the evaluation and examination together (Robinson & Schaible, 1995). Nowadays, many studies relate to the effects of cooperative teaching at home and abroad, especially focusing on the speaking course. Shang Lihua (2009) made an experiment in which she adopted a new way called chatting spoken class. Finally, she found out that it would bring about great benefits to students' future social life (Shang, 2009). Song Ge (2010) proposed that co-teaching would broaden students' horizons, enlarge their knowledge, enrich their culture background knowledge, and also improve their comprehensive ability to some extent (Song, 2010). Meanwhile, Bai Hua, Mou Yiwu and Lydianne Loreda (2009) enriched this field of research. They pointed out that if we viewed the situation as a whole, co-teaching has made a better influence on students' language learning, not only on their linguistic abilities, but also on their non-linguistic abilities (Bai, Mou, & Loreda, 2009). Saville-Troike Muriel (1989) put forward that co-teaching would be efficient to cultivate

the students' intercultural communicative competence through culture introduction (Muriel, 1989, pp.118-119).

However, co-teaching is not an easy activity. Takashi said that co-teaching is a rather complex activity. It demands the cooperative teachers to possess teaching experience, imagination, creativity. Moreover, it cannot lack of tacit understanding (Takashi & Kyoko, 1990). Some problems have already existed in co-teaching. Firstly, the Chinese teacher plays a dominant role in the class, while the foreign teacher's participation is not enough. Secondly, the division of their teaching is not explicit, leading to some chaotic occasions. Thirdly, the contents of the class are of wide range, but are not deep enough. Last but not least, there are few empirical studies on co-teaching, only two studies, such as Zhu Jinhua and Bai Hua, having carried out experiments and collected the relevant data to exam the effects of co-teaching. However, they used the subjects' grades in the final exams as the data. With regard to the credibility of grading system, a final exam in a certain college, the credibility of the empirical study result is needed to be confirmed. Therefore, the current study aims to enrich the empirical students in this field by analyzing the subjects' grades in CET 4 to explore the effects of co-teaching.

2. THE CURRENT STUDY

2.1 Research Questions and Hypotheses

The present study intends to examine the different effects of co-teaching and traditional teaching on students' linguistic abilities and non-linguistic abilities.

Hence, the current study addresses itself to the following questions:

- a) What effects do Chinese-foreign cooperative teaching and traditional teaching have on the students' linguistic abilities?
- b) What effects do Chinese-foreign cooperative teaching and traditional teaching have on the students' non-linguistic abilities?
- c) What are the students' feedbacks to the two kinds of teaching models respectively?

In this study, we will examine the effects of co-teaching and traditional teaching on students' linguistic abilities and non-linguistic abilities by carrying out two styles of teaching for one year, one is traditional teaching, and the other is cooperative teaching. Meanwhile, Questionnaires will be used to exam the effects of co-teaching on students' non-linguistic abilities, then students' grades in CET4 will be analyzed to exam the effects of co-teaching on students' linguistic abilities. Hypotheses and predictions deriving from these questions were:

Hypothesis one and predictions: Co-teaching will make a greater contribution to students' linguistic abilities, especially in listening and speaking.

Hypothesis two and predictions: Co-teaching will have good effects on students' non-linguistic abilities.

2.2 Method

2.2.1 Participants

Subjects in the study were 91 students in department of economics (students from Minjiang University, Fuzhou). We chose the International Trade Class of Grade 2009 (47 students) as the experimental group and students from the Financial Class as the control group (44 students). First, the English proficiency of the participants was measured by their Entrance Exam for College, and the result of Independence-Sample Test showed no significant difference ($\text{sig} = 0.544 > 0.05$); second, the participants were freshman when they took part in the experiment, so they could cooperate with teachers better. Table 1 showed the specific information of the two groups of the participants.

Table 1
Details of the Two Groups

Groups	Experimental group	Control group
Teaching models	Co-teaching (Chinese teacher A + an American teacher)	Traditional teaching (Chinese teacher B)
Number of students	44	47

2.2.2 Procedures

From October, 2009 to July, 2010, the comparative teaching experimental were carried out. During the period, the experimental group received co-teaching model, while the control group received traditional model. In co-teaching, the foreign teacher was responsible for designing listening and speaking tasks related to the topics of the textbook in the 4 integrated courses every week, while the Chinese teacher explained the vocabulary, key points and difficult sentences of the text in the same 4 integrated English courses every week. In addition, the Chinese teacher gave lectures in the English speaking and listening courses only for 2 classes per week. In other words, the foreign teacher and Chinese teacher only cooperated with each other in the integrated English courses for 4 classes per week. As for the control group, only a Chinese teacher instructed the students for 6 classes every week. In December, 2010, all the subjects took part in the CET (College English Test, Band 4), and their grades in CET 4 were collected. Meanwhile, before the

Table 2
Results of One-way ANOVA on the Scores of the CET4

Classes	Listening	Reading	Comprehensive	Writing	Total points	
Experimental class vs.	F	2.114	2.281	10.115	4.025	5.525
Financial class	P	0.118	0.028	0.001	0.181	0.021

The results of one-way ANOVA showed the differential teaching effects of the two teaching models were revealed by comparing their CET 4 grades. Table 2

experiment was finished, questionnaires (Appendix A & B) were distributed to all the subjects to study the effects of two models on their English learning. Questionnaire 1 (Appendix A) was designed for the experimental group. It consisted of 10 questions. Question 1 to question 2 asked the students to evaluate the effects of co-teaching both on students' linguistic abilities and non-linguistic abilities. For example, in question 1, the subjects were required to grade the effects of co-teaching on listening, speaking, etc. respectively (the total score for each item is 10). Question 3 to 4 involved the students' attitudes and evaluations of co-teaching. Question 5 aimed to explore the best time to begin co-teaching. Question 6 attempted to find out the biggest benefit of co-teaching for students. Question 7 made students to choose the best way of co-teaching. Question 8 required students to give the opinions about co-teaching. Question 9 to question 10 dealt with the existing problems of co-teaching and students' suggestions to solve them. Questionnaire 2 (Appendix B) was designed for control group. Question 1 to 4 were the same as those of the questionnaire 1. Question 5 attempted to find out the biggest benefit of traditional teaching for students. Question 6 required students to give the opinions about traditional teaching. The last two questions were also the same as those of questionnaire 1.

2.2.3 Data Collection and Analysis

All the subjects' grades of CET4 in December, 2010 were collected. So all together there were 91 valid samples (experimental group: 44, control group: 47). The data were analyzed by the software SPSS18.0. The results of one-way ANOVA analysis on the grades of CET4 of the two groups would be displayed in the next part.

As for the questionnaires, 16 students of the two groups, who failed to properly finish the questionnaires, were eliminated from the analysis, leaving 73 copies (69 returned copies were valid. Experimental group had 38 copies, and control group had 31 copies). The mean scores of each item in the questionnaires were calculated by the Excel, and students' feedbacks to the two teaching models were also categorized and analyzed.

3. RESULTS OF THE STUDY

3.1 The Effects of Cooperative Teaching on Students' Linguistic Abilities

summaries these findings. Experimental group performed significantly better in the reading part and comprehensive part than the control group ($p = 0.28 < 0.05$, $p = 0.01 <$

0.05). However, concerning listening score, experimental group did not perform significantly better than the control group ($p = 0.118 > 0.05$). Neither did in the writing part ($p = 0.181 > 0.05$). Consequently, the assumption that experimental class would perform significantly better in their language ability than control class was partly supported in the result of the CET 4 grades. All in all, co-teaching helped improve students' linguistic abilities, since overall performance of experimental class in CET 4 is significantly better than that of control class ($p = 0.021 < 0.05$). However, the difference is mainly revealed in reading and comprehensive part, rather than in listening, which is contradictory to our expectation. What's more, for there is no speaking part in CET4, the effects of co-teaching on spoken English can't be proved here, but we will discuss it later by comparing the results of Questions 1 in the questionnaire 1 and question1 in questionnaire 2. Table 3 shows the results.

Table 3
Students' Grading of Effects of Two Teaching Models on Students' Linguistic Abilities

Subject	Experimental group	Control group
Listening	7.97	6.1
Speaking	8.05	5.9
Reading	7.11	5.8
Writing	7.3	5.5
Culture background knowledge	8.15	5.1

Note: The full score of each item is 10.

Table 3 shows the mean scores of the effects on students' linguistic abilities according to the participants. The mean score of culture background knowledge is 8.15 and the mean score of reading is 8.05 in experimental class, while they are only 5.1 and 5.9 respectively in control group. As for reading, experimental group is only 7.11, but control class is 5.8. As we can see from Table 3 and Figure 2, experimental group held a more positive attitude to co-teaching than control group did to traditional teaching. Therefore, co-teaching has a better effect on students' linguistic abilities. Results of question 1 proved hypothesis1 from another aspect.

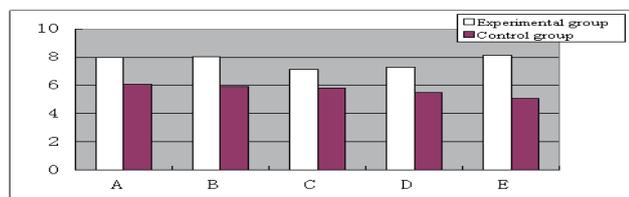


Figure 1
Students' Grading of Effects of Two Teaching Models on Students' Linguistic Abilities

Note: A = Listening; B = Speaking; C = Reading; D = Writing; E = Culture background knowledge. (The full score of each item is 10.)

3.2 The Effects of Cooperative Teaching on Students' Non-linguistic Abilities

Table 4
Effects of Two Teaching Models on Students' Non-Linguistic Abilities

Different aspects	Experimental class	Control class
Improving learning method	7.59	5.1
Stimulating learning motivation	7.80	5.0
Increasing learning confidence	7.67	4.7

Note: The full score of each item is 10.

Table 4 shows the mean scores of the influences of two teaching models on students' non-linguistic abilities according to the participants. To promote motivation to learn is graded 7.80 and to improve study method is 7.59 in experimental group, while they are only 5.0 and 4.7 given by control group. As we can see from the scores, co-teaching plays a better role in increasing the interests of learning English, improving learning methods and self-confidence. In other words, co-teaching model has better effects on improving students' non-linguistic abilities, too. Therefore, hypothesis 2 was fully supported.

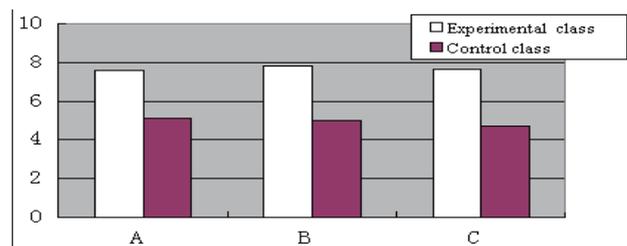


Figure 2
Effects of Two Teaching Models on Students' Non-Linguistic Abilities

Note: A = Improving learning method; B = Stimulating learning motivation; C = Increasing learning confidence. (The full score of each item is 10.)

3.3 Students' Feedbacks of the Two Teaching Models

Table 5 shows the mean score of students' overall assessment on the two teaching models. For the experimental class, the mean score is 8.2, while control class is only 5.1. As can be seen from the scores presented above, co-teaching is favored by students of the experimental group, but traditional teaching is not as popular as co-teaching.

Table 5
The Mean Score of Students' Overall Assessment on the Two Teaching Models

Groups	Experimental group	Control group
Overall assessment (mean score)	8.2	5.1

Note: The full score of each item is 10.

Table 6 shows the results of students' evaluation on the teaching process of two teaching models. The mean score of teachers' role in co-teaching is 8.71, while teachers' role in traditional teaching is 5.6. Cultivating students' self-learning capability in co-teaching class is 7.87, only 5.7 in traditional class. As we can see, the teachers played an important role in cultivating students' self-learning capability in co-teaching class.

Table 6
Students' Evaluation on the Two Teaching Models

Groups	Mean score			
	A	B	C	D
Experimental class	7.80	7.86	7.87	8.71
Control class	5.9	5.4	5.7	5.6

Note: A = method of teaching; B = contents of courses; C = cultivation of self-learning capability; D = the role of teacher in the class. (The full score of each item is 10.)

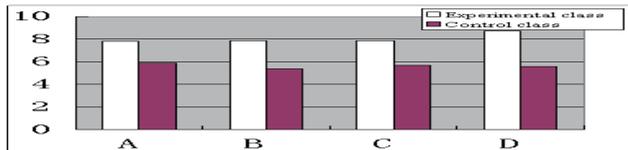


Figure 3
Students' Evaluation on the Two Teaching Models

Note: A = method of teaching; B = content of courses; C = cultivation of self-learning capability; D = the role of teacher in the class. (The full score of each item is 10.)

Table 7 shows the students' attitudes toward co-teaching, more than half of students think co-teaching can

help their English learning, 25% of them think highly of co-teaching, while only 3% of students of control group speak highly of the traditional teaching, most of them think traditional teaching doesn't improve their English grades.

Table 7
Students' Attitudes Toward Two Teaching Models

Groups	Percentage			
	A	B	C	D
Experimental class	25%	54%	16%	5%
Control class	3%	32%	48%	17%

Note: A = great; B = not bad; C = not much; D = not certain.

Table 8 shows the students' attitudes toward the biggest benefit of two teaching models respectively. 50% of students of experimental group think that co-teaching can increase their interests in English learning, only 9% of students of control group shares the same opinion. Half of the students of experimental group think that co-teaching can improve their culture background knowledge, while only 30% of students in control group think traditional teaching has the same effect. As for reading abilities, 2% of students in experimental group think so, while 24% of students of control group agree with it. Apparently, co-teaching is more effective in increasing students' learning interests and improving their cultural background knowledge than traditional teaching, but traditional teaching has better effects on improving students' reading abilities and enlarging their vocabularies.

Table 8
The Results of the Greatest Benefits of Two Teaching Models Respectively

Groups	Percentage						
	A	B	C	D	E	F	G
Experimental class	50%	34%	34%	5%	2%	7%	53%
Control class	9%	6%	6%	24%	24%	12%	30%

Note: A = Interest to learn English has increased significantly; B = English listening has been developed significantly; C = Oral English has been improved significantly; D = English vocabulary has been enlarged greatly; E = English reading ability has been improved; F = Writing ability has been improved; G = Cultural background knowledge has been improved.

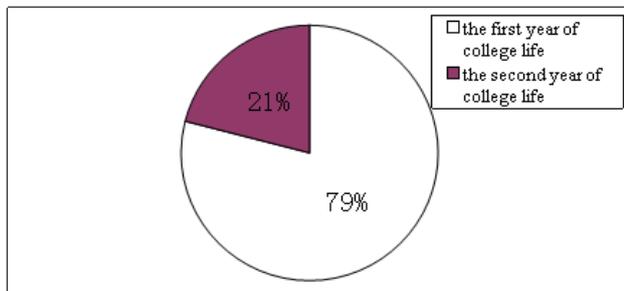


Figure 4
Percentage of Best Time to Put Co-Teaching into Practice

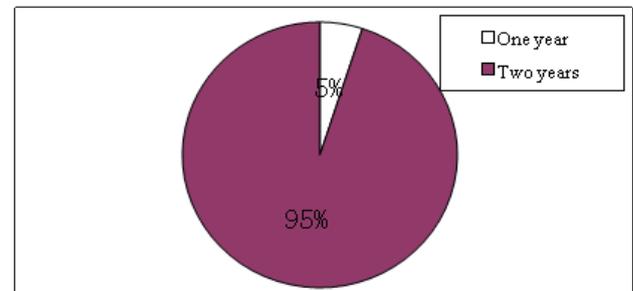


Figure 5
Suitable Duration of Co-Teaching

Figure 4 shows the students' attitudes to the best time to carry out co-teaching, 79% of students chose the first year of college as best time to start co-teaching practice, while 21% of them chose the second year. In other words, most of the subjects think the first year is more suitable to start co-teaching.

Figure 5 shows the best duration of co-teaching in college years. Only 5% of them chose one year while 95% of them think that one year is not enough, it should be two years. As we can see from the pie chart below, so the best duration time may be two years.

Table 9 shows the result of the best way to teach in co-teaching class. 55% of students chose alternative teaching, only 3% of them liked the way that one teaches while the other tours around the classroom. Clearly, the most favorite of co-teaching is alternative teaching: when one is teaching, the other gives the explanations timely.

Table 9
The Best Way of Co-Teaching

Means	A	B	C	D
Percentage	16%	3%	55%	29%

Note: A = One teaches, the other observes; B = One teaches, the other tours; C = Two teachers teach alternatively, and explain for each other timely; D = Parallel teaching, two people share the responsibilities and teach separately.

The last parts of the questionnaire are two questions about the suggestions and difficulties of the two teaching models. The participants were asked to point out the existing problems of two teaching models and gave the suggestions. Control group pointed out that teaching contents of traditional teaching are lack of diversity, so it can't stimulate students' motivation to learn. What's more, there are few opportunities for students to communicate with others in traditional classroom, so students' listening and speaking are poor. They also gave the suggestions: give students more independence, strengthen class interaction between teachers and students, enrich class contents, improve the learning atmosphere, and create more chances to communicate in English. There are two main problems of cooperative teaching. Firstly, students and foreign teachers' couldn't communicate effectively. For example, sometimes students couldn't understand the foreign teacher, but Chinese teacher didn't give explanations to students. Secondly, students were encountering a dilemma since their teaching methods were not the same. They also offered some suggestions for co-teaching: create more opportunities for students to communicate with foreign teachers, and Chinese teachers should facilitate the communication between foreign teacher and students; extend the co-teaching time and increase the number of foreign teachers.

4. DISCUSSION

From the above results, cooperative teaching has a significantly better influence on improving students'

linguistic abilities. The results of One-way ANOVA analysis showed that co-teaching out-performed than the traditional teaching model, especially in the reading and comprehensive parts in CET4. However, the significant difference did not lie in listening as expected. Main reasons may be: 1) though the two classes showed no significant difference in their English proficiency measured by their Entrance Exam for College, their linguistic skills may have discrepancies in some aspects, such as reading and translating abilities. etc.; 2) according to the results questionnaires, all the participants think co-teaching can have a good effects on their English listening. However, the foreign teacher may pay more attention to cultivate students' communicative skills rather than the exam itself. In addition, the restrictions to the question types in CET4 test, the advantages of co-teaching in improving listening cannot be shown completely in CET4; 3) although co-teaching also improved the students' speaking abilities according to their opinions. However, there is no spoken English part in CET4, the positive effects of co-teaching on spoken English cannot be proved here, but we should not ignore it.

In addition, cooperative teaching also has better effects on improving students' non-linguistic abilities, such as improving learning methods, developing motivation and confidence. We know that strong motivation to learn and confidence are the results of interaction of various factors, but motivation and self-confidence affect students' language learning in turn. To inspire the students' interest in learning English and improve students' independent learning capability are two important tasks for college English teaching. Therefore, We should stimulate students' motivation and improve the students' self-confidence to improve their academic performance.

In fact, we have found that learners hold positive attitudes toward co-teaching and hope it lasts for two years. The reasons may be: firstly, co-teaching is a newborn thing, so it may satisfy students' curiosity; secondly, foreign teachers are attractive since they have different teaching models and thinking pattern from Chinese English teachers.

CONCLUSION

This paper has studied the different effects of traditional teaching and co-teaching on students. Findings showed that co-teaching out-performed than the traditional teaching model. The experimental class performed significantly better than the control class in CET4 (college of English test, band 4). However, the significance did not lie in listening as expected. Meanwhile, the results from the questionnaires survey showed that students claimed their spoken English and listening English were greatly improved in co-teaching. In addition, co-teaching also exerted positive effects on students' non-linguistic

abilities in English learning process, including improving learning methods, stimulating motivation and increasing their learning confidence, etc. What's more, we found that learners held positive attitudes toward co-teaching and hope it lasts for two years. Nevertheless, the study also found the following several limitations: firstly, the small number of available samples has made it more difficult to extend to all levels of second language learners. Secondly, experimental students have difficulties in communicating with the foreign teacher. Therefore, we should be devoted to overcoming these obstacles to improve the effects of co-teaching in further teaching reforming practice.

REFERENCES

- Bai, H., Mou, Y. W., Lored, L. (2009). A study on the effects of cooperation between foreign teachers and Chinese teachers on students and teachers' professional growth. *The Theory and Practice of Foreign Languages Teaching*, (4), 46-54.
- Chinese Ministry of Education. (2007). Several suggestions on further deepening reforms of higher education to improve the quality of teaching. Retrieved from <http://www.moe.edu.cn/edoas/website18/25/info25425.html>
- Friend, M. & Cook, L. (2003). *Interactions: Collaboration skills for school professionals*. Boston: Allyn & Bacon.
- Hertel, T. J. & Sunderman, G. (2009). Student attitudes toward native and non-native language instructors. *Foreign Language Annals*, 42(3), 468-482.
- Maroney, S. A. (2009). Some notes on team teaching. Retrieved from <http://www.wiu.edu/users/mfsam1/TeamTchg.html>
- Muriel, S. T. (1989). *The ethnography of communication*. Oxford: Basil Blackwell.
- Philipson, R. (2001). *Linguistic imperialism*. Oxford: Oxford University Press.
- Robinson, B. & Schaible, R. M. (1995). Collaborative teaching: Reaping the benefits. *College Teaching*, (2), 57-59.
- Shang, L. H. (2009). A study on the cooperation between Chinese teachers and foreign teachers in English-speaking class. *Chinese Adults' Education*, (12), 128-129.
- Song, G. (2010). On the cooperative teaching models between Chinese teachers and foreign teachers in English-speaking class. *Modern Communication*, (4), 220-221.
- Takashi, S., & Kyoko, Y. (1990). *Team-teaching in English classrooms: An intercultural approach*. Tokyo: Kairyudo Publishing.
- US Department of Education. (2005). *NO child left behind act of 2001*. Retrieved from <http://www2.ed.gov/policy/elsec/leg/esea02/index.html>
- Wang, M. L. (2004). On the cooperation between foreign teachers and Chinese native teachers and management of those foreign teachers. *Heilongjiang Research on Higher Education*, (9), 48-50.
- Zhu, J. H. (2006). Take advantage of both Chinese native teachers and foreign teacher to improve students' English proficiency. *Foreign World*, (5), 52-56.