

The Application of Web-based Autonomous-Cooperative Teaching and Learning Model for non-English Majors

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Abstract: The English teaching guideline of China - “College English Curriculum Requirements” makes it clear that cultivating students’ competence in comprehensive use of English, especially skills in listening and speaking, is the objective of college English teaching. This paper introduces a web-based autonomous-cooperative teaching and learning model in response to this requirement. Through questionnaires and interviews, this study reveals that students have a positive attitude towards web-based English learning model, but display only a medium level of autonomous learning behaviours. The analysis of some preliminary data indicates that the new model is reasonably effective in enhancing colleague English learners’ performance of language but comparatively weak in strengthening their linguistic knowledge.

Key words: autonomy; cooperation; web-based

Introduction

Since the late 1970s, the boom of learning English in China has been changing the English teaching profession in China year by year, which has embedded the development of its teaching system. In China, the traditional English teaching model (grammar-translation method) is teacher-centered (Cai, 2005). A typical scene of this model is that the teacher stands on the platform, delivers courses largely characterized by explaining language points to the students; and the students listen carefully to the teacher at their desks throughout the whole lesson. This model sounds to be rather boring. However, the teacher pays much attention to the teaching of linguistic knowledge, whereas little attention is paid to the

development of their practical use of the language. As a result, lots of students who have learned English for several years could hardly express everyday motions in target language.

Then in 2007, China National Education Institute issued “College English Curriculum Requirements” (2007), which symbolized the beginning of a fully new teaching reform concerning college English teaching. According to the new “Requirements”, the objective of college English teaching is to cultivate students’ competence in comprehensive use of English, especially their skills in listening and speaking. The new “Requirement” has also made it clear that “All the courses should be fully individual-oriented”, taking account of students’ individual learning needs at different competence levels. Also, the teaching model should develop in the direction of “individualized and autonomous learning”, and teachers should “attach particular importance to the central role of students in the teaching and learning process”, “enable students to select materials suited to their individual needs”, etc. All these requirements encourage students to learn autonomously.

Since the teaching objective in the new “requirements” particularly stresses students’ listening and speaking abilities, interactions between teachers and students, students and students, students and computers are needed in language teaching and learning process. Thus, co-operative learning would play an active and important role in language teaching (Hu, 2005). Cooperative learning (or collaborative learning) (CL) in education was originated in Britain and was later widely advocated in America and other European countries. In cooperative and collaborative learning, students generally work together in face-to-face groups. They spend large amounts of time engaging in discussion and assisting one another in understanding. This type of peer interaction increases the opportunities for meaningful communication on academic content in low-anxiety contexts. Compared with the researches on CL carried out abroad, domestic study is quite draw back and limited, especially in linguistic area. Most researches emphasize the concept, theoretic basis and teaching significance of CL with middle school students and students in the national well-known universities. So, it’s necessary to study the feasibility of applying CL to college English teaching in less famous and local institutions.

Theoretical Background

Theory of Constructivism

Constructivism is an approach to teaching and learning based on the premise that cognition learning is the result of “mental construction”. In other words, students learn by fitting new information together with what they already know. Construction theory emphasizes how a learner builds up or constructs knowledge in their mind. It also stresses a learner’s necessity in interactions to achieve learning objectives. Construction theory claims that learning is not the passive acceptance of knowledge which exists “out there”, but that learning involves the learner’s engaging with the world (Hein, 1991). Learning is no longer a stimulus-response process but a natural process of which, each learner actively selecting, analyzing and synthesizing new information on the basis of his previously existing understandings and beliefs to discover and construct his own meanings and interpretations. Thus, the learner is put at the centre of the learning and teaching process. The teacher’s role in this process is to provide students with opportunities and incentive to build up knowledge by themselves. So the teacher becomes a coordinator, a facilitator, an advisor, a tutor and a coach. Most importantly, the teacher becomes a learner along with his students, and the teaching process becomes a learning process for the teacher too (Murphy, 2000).

Constructivism functions as enlightenment to modern education. The advocates on various kinds of learning (e.g. learner-centeredness, knowledge construction, cooperative learning, task-based learning, discovery learning and so on) have become important qualifiers for education in the new century. Constructivism also offers language teaching a basis where teachers derive approaches and methods.

Theory of Autonomy

Early in the 1980s, Holec (1981) first introduced theory of learner autonomy into foreign language teaching area. He gives learner autonomy a rather far-reaching definition: “the ability to take charge of one's own learning”, which he then specifies as “to have, and to hold, the responsibility for all the decisions concerning all aspects of this learning”. Holec’s learning process includes (1) determining the objectives, (2) defining the contents and progression, (3) selecting methods and techniques to be used, (4) monitoring the procedure of

acquisition to be properly communicated (rhythm, time, place, etc) and (5) evaluating what has been acquired. According to Holec, learning is an individual process: learners are all different, their backgrounds and experiences vary and they will consequently encounter new knowledge, presented to them either by the textbook or the teacher, in different ways.

Based on Holec's explanation, the author of this thesis tends to view the term of autonomy as the willingness and the ability to take charge of one's own learning as well as educational goal which learners are always trying to achieve in the field of language learning. In order to achieve the goal of autonomy, learners learn to assume the responsibility for their own learning - they learn to make decisions in these aspects: objective determination, contents choice and progress planning, methods selection, procedure monitoring, and evaluation. During this process, learners are placed at the centre of all learning activities.

Nowadays, web-based computers provide the most suitable environments for promoting learner's autonomy, they are regarded by Warschauer (1996) as "the most recent innovation to be linked with the promotion of autonomy", which "when appropriately used, do show potential to promote student autonomy, increase classroom equality, and help students develop a critical learning perspective". And the potential may become true only through careful designing of the curriculum and creative practice of the EFL teachers and learners.

In this paper, a model will be introduced to integrate constructivism and learner autonomy into EFL teaching.

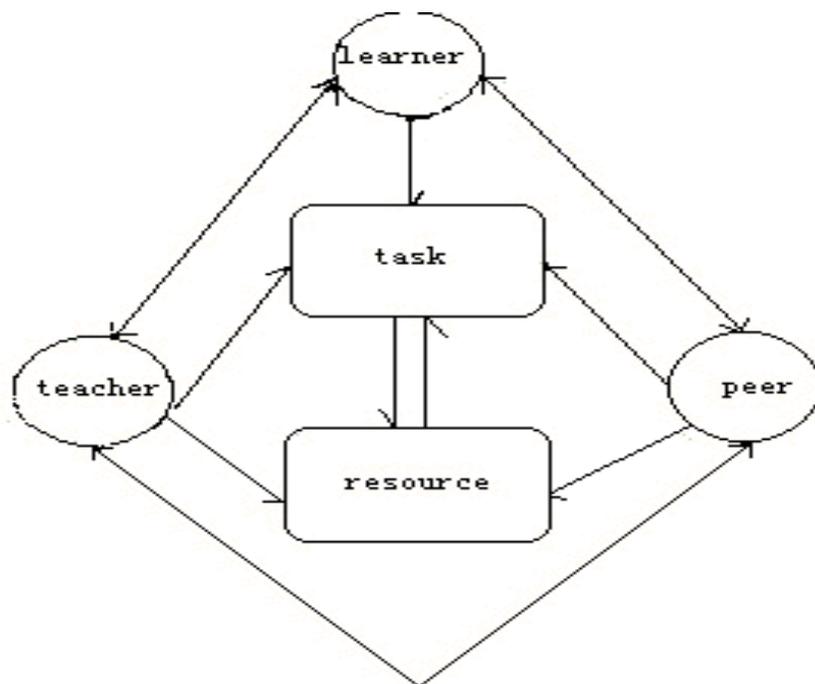
Experimenting Procedure

Brief Description of the Model

Based on the requirements of the new "Requirements", a Web-based Autonomous-Cooperative Teaching and Learning Model is developed. This model aims at improving students' comprehensive use of language, especially their listening and speaking competence. As its name suggests, the new model emphasizes both students' autonomous learning and cooperative learning. Cooperative learning mainly refers to the cooperation between students

in one group and among groups, and also the cooperation between learners and the teacher. Figure 1 shows their relationship clearly.

Figure 1: Relationships in cooperative learning



The bottom layer is resource, constituted by textbooks and inclusive CD-ROMs, reference books, magazines, newspapers and all the information accessible from a net-based computer. The middle layer is task. It includes all the activities in class or out of class designed by the teacher. The top layer is composed of a learning circle, constituted by the learner, the teacher and the learner peer with the learner as the centre, which demonstrates “learner-centeredness”. The learner can be any student in the class and learner peer is any other classmate. Learning resource is put at the bottom to show that it is the foundation of language learning. To accomplish the task, “learner” and “peer” will cooperate with each other, which can be shown by the arrow between them, to search for resources and accomplish the task. The difference between traditional grammar translation method teaching model and the suggested autonomous-cooperative teaching and learning model is illustrated in Table 1.

Table 1 Comparison between Traditional Grammar Translation Method Teaching Model and Autonomous-Cooperative Teaching and Learning Model

Item	Grammar Translation Method Teaching Model	Autonomous-Cooperative Teaching & Learning Model
Teaching objective	To cultivate students' reading competence and certain listening, speaking, reading, writing and translating ability	To cultivate students' competence in comprehensive use of English, especially performance in listening and speaking
Teaching method	Teacher explanation (Teacher-cantered)	Self-study + teacher assistance + face-to-face teaching(learner-cantered)
Teaching Resource	Textbook	Textbook + courseware + electronic resources + internet resources
Classroom activity	Question and answer	Cooperative study between groups
Learning place	In class	In class + out of class
Learners learning method	Listening to the teacher	Learning autonomously and cooperatively
Students role	Passive knowledge receiver	Autonomous learner, cooperator
Teachers role	Knowledge transmitter	Facilitator, observer, instructor, learner, evaluator

Compared with the traditional teacher-centred, lecture-based, and classroom-confined teaching approach, the autonomous-cooperative teaching and learning model has the following features:

- Shift of the learner and the teacher role;
- Emphasis on both interaction and cooperation;

- Emphasis on both in-class learning and after-class learning; and
- Enhancement of autonomy.

Research Methodology

The research lasted for one term (16 weeks) and the textbook we adopted was *Experiencing English (Book one)*.

Two classes of more than one hundred non-English majors from an ordinary university in China were involved in this study. One class of 54 students were taken as the experimental group works in small groups and with cooperative learning as the principal teaching approach; the other, the control group with 56 students received conventional whole-class instruction most of the time and adopting interaction method for part of the teaching.

From their entrance examination scores, we can see that there is no great difference in their English proficiency ($p=0.538 > p=0.005$).

Table 2 Differences In English Proficiency Between Two Classes

	N	Mean	Std. Deviation	Sig (2-tailed) p
Eg	54	83.94	17.15	0.583
Cg	56	82.10	18.12	

Eg= experimental group Cg= control group

N= number of students Std. Derivation= standard derivation

Learning Process

Before class, the teacher required each group to collect related information on the topics set in the text book. Students were asked to preview the whole unit through group working, marking the difficult language points and discussing with group members about these language points and text structure. They were also asked to prepare a three-minute oral presentation on findings after group discussion.

During the class, the teacher first allocated 20 minutes for the groups to represent their group findings by PowerPoint. Then the students were asked to listen to the dialogues in “listen and talk” part and were required to make similar dialogues using words and expressions listed in communicative task quickly. The following part was to analyze the text which was accomplished through the exploration and cooperation of the learners with the assistance and guidance of the teacher. As for the language points, the teacher did not explain explicitly one after another but restated some key points, idiomatic expressions and sentences difficult to interpret in each part by asking students to paraphrase or translate them into Chinese.

After text learning, students were required to scan it once more to find the answers to the content comprehension questions given at the end of the text. Afterwards students were guided through practicing asking and answering these questions in small groups again. Then the teacher took the lead of the students and finished some exercises selectively. Before the class was over, students were required to prepare for a debate which would be carried out between groups the next class.

After the study of the text, the teacher made affirmative comments. Meanwhile, problems in presentations and group working were exemplified. The assessment served as a way to provide the learners with feedback so as to reassess their approach or to motivate them to make further progress.

Thus, by carrying out group preparation out of classroom and group learning within class setting, the teaching procedures were completed by the active interaction at two levels: interaction between the learners; and interaction between the teacher and the learners. All the activities are learner-centred and task-based. The teacher only offers guidance, advice and assessment. The learner has become the planner of his performance. Both autonomous learning and cooperative learning are valued.

After class, students have to summarize the problems of their group during pre-class learning and in-class learning and offer some solutions. They also cooperate with each group member to finish the tasks assigned by the teacher and preview the next lesson, same procedures as described in previous text.

Data Analysis on the Test

Data of the scores of the control group and the experimental group in the achievement test were available after examination. The final examination consists of listening comprehension (30%), reading comprehension (40%), vocabulary and structure (10%) and translation (20%). In order to test the significant differences in the students' scores between experimental group and control group, the test results are analyzed with the software SPSS 11.0(Statistic Package for Social Science). The statistical analysis results are presented in Table 5 below, including the performance of the learners in listening, reading, vocabulary & structure and translation respectively.

Table 5: Results Of The T-Test

**S.D.= STANDARD DEVIATION SIG.= SIGNIFICANCE

	mean		S.D.		t	Sig. (2-tailed) p
	Eg	Cg	Eg	Cg		
Final exam (full score 100)	72.59	71.44	12.19	13.99	0.456	0.649
Listening (full score 30)	18.24	16.20	4.86	5.01	2.171	.0032
Reading (full score 40)	32.89	33.25	5.35	6.83	-0.308	0.759
Vocabulary & structure (full score 10)	6.69	7.67	1.98	2.07	-2.528	0.013
Translation (full score 20)	14.67	14.70	4.07	3.77	-0.040	0.968

In statistics, the significant differences occur only when the probability (p) is below or equal to 0.05. The figures of probability in Table 5 p=0.649 in final exam, p=0.759 in reading comprehension and p=0.968 in translation indicate that there is no significant difference in terms of the students' performance in final exam and their reading and translating ability. But, the figure p=0.032 in listening and p=0.013 in vocabulary and structure do show that there's a significant difference in the learners' performance in listening and vocabulary & structure in final exam. Such results demonstrate that the

suggested model does have effects in enhancing the learners' pragmatic skills (the skills of applying language into practice) of listening; while the traditional teaching model is more effective in enriching learners' linguistic knowledge (basic knowledge about language, e.g. word, sentence, structure, grammar) about vocabulary and structure.

Several reasons may account for the results:

1) The Autonomous-Cooperative Teaching and Learning Model focuses on the pragmatic skills rather than the linguistic knowledge. Consequently, the performance of the experimental group is not so satisfactory in the final examination, which mainly focused on linguistic knowledge and pragmatic skills like speaking and writing are neglected.

2) The learners are not used to autonomous learning and their autonomous learning ability is quite low. Hence, they may feel upset and even give up learning at the beginning.

3) The Autonomous-Cooperative Teaching and Learning Model, which emphasizes learner-centeredness and interaction, creates more opportunities for the learners to use English in class. Their pragmatic competence in listening and speaking benefits a lot from such kinds of activities. If speaking is included in the exam, the significant difference in their scores versus control group may become more obvious.

Benefits and limitations of the Autonomous-Cooperative Teaching and Learning Model

During the experiment, a couple of benefits and limitations of the Autonomous-Cooperative Teaching and Learning Model are revealed.

Firstly, through autonomous and cooperative learning, students get more chances to engage themselves in their English both in class and out of class, but some students feel at loss when asked to learn autonomously even with the assistance of the group members.

Secondly, with busy activities in class, students no longer feel dull and sleepy. More and more students have much to say in group discussion. But the class is difficult to handle, especially in terms of time control. For example, some presentations are too long and some students' pronunciation is too poor to be understood by other students.

Thirdly, though they can speak fluent English in class and are able to understand others well, some students, especially students with low English proficiency, still feel that they haven't been benefited much because few grammatical points are mentioned in class.

Implications

The results and findings of the present study have led to important implications for EFL teaching in the Chinese classroom context.

As suggested by the model, autonomous and cooperative learning is quite effective in improving students' pragmatic use of English. At the same time this model is weak in strengthening students' linguistic knowledge. Comparatively, the traditional language teaching method, which emphasizes students' linguistic competence, is more effective in enriching learners' linguistic knowledge about vocabulary and structure. Thus, while using the suggested model, the teacher should also allocate certain time to strengthen students' English foundation by systematically introducing grammar to them and requiring them to do related exercises. English teachers should be flexible in choosing different teaching ways according to teaching objectives and learners.

In this learner-centred model, the teacher's function is not weakened but strengthened. The teacher has to research extensively and collect significant amount of teaching materials, tirelessly scheme out the courseware, carefully design tasks, skilfully organize activities, creatively produce friendly and relaxed atmosphere to make sure for the smooth run of the class activities, and sensibly assess the learners' performance so as to motivate each individual. The success of such a course demands a more capable teacher, who does not only possess a good command of updated linguistic knowledge, cultural knowledge, and computer knowledge, but also understand the learners' needs, wants, and can maximally satisfy them. Only a courageous explorer and a life-long autonomous learner can fulfil such high requirements. So, EFL teachers must become autonomous learners themselves.

It is not sufficient for one individual researcher to carry out the research on his/her own. It calls for teachers in cooperation to take part in the long-term project. Hence teacher training should be incorporated for teachers to be armed with pedagogical theories and to help them initiate their own classroom investigations. Thus, teachers may become self-

directed researchers in their own work. Only through the consistent teacher's professional development in the form of cooperative endeavour, can college English teaching progress along the continuum of development.

Conclusion

Owing to the limitations, the results reached in this paper can only be tentative. However, the researcher still expects that the effect of the Autonomous-Cooperative Teaching and Learning Model on fostering learners' autonomy and performance of language will be further proved in the future research and trial, and the outcome of this exploration may become helpful to other EFL practitioners, especially who are paying attention to college English teaching in regular institutions.

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