
A COLLABORATIVE TEACHING MODEL FOR HETEROGENEOUS CLASS IN A COMPUTER-ASSISTED LISTENING COURSE

Mr. LU DINH BAO

Van Lang University

Ms. VO THI THU HANG

Van Lang University

ABSTRACT

Collaborative teaching (CT) has long been considered as an effective teaching paradigm in English language teaching (ELT) domain. However, few studies showed how co-teachers could provide additional support for lower-level students in heterogeneous CALL classes. This study aims at proposing a co-teaching model in the computer-assisted listening course, in which lower level students received a 15-minute intervention every teaching session to help them catch up with the pace of the class. The quasi-experimental research design was employed with control and experimental groups. Thirty-nine Vietnamese English-major freshmen, from two intact classes at Van Lang University, and two EFL lecturers participated in the study. The 10-week listening course was implemented with similar procedures for both groups except the fact that only deficient students in the experimental group received additional support with 15-minute interventions. The collected data from the pre-test and post-test were analyzed by t-test using SPSS software. The yielded result of the experimental group outweighed that of the control group which confirmed the effectiveness of the investigated CT model for supporting lower-level students of a diverse level class in the computer-assisted environment.

Keywords: *computer-assisted language learning (CALL), collaborative teaching, heterogeneous class*

INTRODUCTION

At the age of globalization, English language plays a pivotal role in any education system; thus, students need to be well-prepared for English communication purposes. Dudeney and Hockly (2007) pointed out that the application of ICT in classrooms could not only make students well-equipped in later working life but also help themselves be familiar with

the fast-changing of globalization. In some recent years, computer-assisted language learning (CALL) has been widely employed in the ELT domain mainly due to its efficiency in serving three aspects of language teaching: easy access and navigation, teacher workload reduction, mixed-level and large-sized class.

Concerning teaching heterogeneous classes, Vietnam's education system, in general, and ELT domain, in particular, have been confronted with mixed-level classes mainly due to the large number of students arranged in a class. This leads to the fact that teachers have been struggling with students ranging from different educational backgrounds. Reflecting on the Faculty of Foreign Languages, Van Lang University, there are two challenges for teaching freshman students. The former is students' educational and geographical background which means that there exists a growing disparity in prior English knowledge of those who come from remote areas and those who are from urban areas; the latter is freshman students, particularly those from rural regions, are more unlikely to adapt themselves with the tertiary learning environment which attributes to their lack of motivation. In searching for an optimal solution, the Faculty has proactively employed CALL in listening courses for nearly 6 years which has brought some certain improvement to low-level students. However, the aforementioned solution has not effectively shortened the gap between the high and the low-level students which leads to the fact that the *collaborative teaching* (CT) model in CALL listening course might be considered as a radical solution which is worth taking further to narrow down the gap.

In terms of supporting deficient students in mixed-level class, apart from the previous methodology which has been employed in teaching for years, CT model is likely to be a novel and effective method to resolve the current (Friend, 2013; Fenty & McDuffie-Landrum, 2011; Scruggs, Mastropieri, & McDuffie, 2007). That is to say, this teaching model has been helping teachers to share their teaching workload, namely syllabus, material, and to make use of their quality time in class to assist lower-level students.

LITERATURE REVIEW

The review of this literature focuses on two main sections: issues related to heterogeneous classroom and collaborative teaching models for this mixed-level teaching context.

Heterogeneous classroom

Teaching heterogeneous classes, a common issue for teachers and

educators, is a complex endeavor as it requires a great deal of effort to facilitate students at most in their learning process. Skehan (1998) defined a heterogeneous class as a learning environment consisting of successful and unsuccessful learners. In ELT domain, Ur (2012) generalized the definition of a mixed-ability class based on 06 aspects: language knowledge, language learning ability, motivation, learning experience, learning style, and social or cultural background. Also, several obstacles faced by teachers are listed by Ur, including classroom discipline, students' learning interest, the level of difficulty of tasks, suitable learning material, and classroom participation

Regarding these challenges, Shulman, Lotan, and Whitcomb, (1998) promoted group work as a radical teaching strategy for this educational issue. These researchers commented that group work could help enhance academic, cognitive, social and attitudinal outcomes for students which quite correspond to Ur's list of gaps between proficient and less proficient students in a class in 2012. Indeed, through group work activities, both higher-level and lower-level students could be assigned adequate tasks at the same time, creating a meaningful learning climax for mixed-ability learners. Also, as successful students are also empowered to help other less-proficient levels during group work activities, students get chances to learn from their peers.

Another solution presented is collaborative teaching. This teaching model creates much more effective teaching sessions for the heterogeneous class in comparison to the traditional classroom with one teacher (Murawski, 2009). Actually, co-teachers could share heavy workloads from a mixed-level class. Scruggs, Mastropieri, and McDuffie (2007), Fenty and McDuffie-Landrum (2011) claimed that co-teaching provides opportunities for students with difficulties to catch up with other students in the same class since these students could receive support from the instructors every time they need in the course of learning.

Regarding the current teaching context, collaborative teaching models seemed to outweigh group work activities, when it comes to the practicality of choosing an appropriate solution. The investigated listening course was implemented in computer labs which are originally designed for computer-delivered tests with desk dividers and a fairly rigid room layout so as to maximize the privacy and confidentiality during the test. As a result, the available facilities are not ready to lend themselves to a lively and dynamic class with group work activity. Meanwhile, as two teachers collaborate in one class, they are able to maximize individuals' learning with respect to difficulty deriving from

the existing facilities.

Collaborative teaching models

The following table summarizes six models in a CT classroom of Friend (2013).

Table 1

The collaborative teaching models

Model	Description
Teaming	Both teachers equally deliver the learning content to students at the same time.
Parallel Teaching	The class is split up and each teacher is in charge of half of the class
Station Teaching	The class is divided into three groups. The first two groups are taught by two teachers, and students in the third group do the revision activities or complete a project with their peers. Students should move among groups to learn needed skills and knowledge to finish the tasks or projects assigned
One Teach- One Observe	One teacher carries out the lesson when the other drifts through the class to collect data on students, making predictions for further help or intervention to struggled students.
One Teach-One Assist	One teacher is leading the lesson, while the other teacher is playing the role of an assistant to the main teacher.
Alternative Teaching	One teacher presents the lesson to most of the class and another teacher works with a small group of students with learning difficulties.

Of all co-teaching models, alternative teaching could be an appropriate alternative to the traditional classroom as it satisfies the need for supporting lower-level students in a small, intensive group. Also, other co-teaching models require quite reasonable learning space to conduct

the collaborative teaching activities, i.e. grouping, regrouping and moving between groups, whereas in alternative teaching, there are solely two groups: one small group and the rest of the class. More importantly, the amount of time for alternative teaching has to be carefully considered due to the fact that teacher-participants' teaching schedules sometimes overlap with each other; thus, it would be a time management challenge to conduct a whole session with both teachers in class.

Although collaborative teaching has gained its popularity across the language teaching domain for a while, researchers tend to focus on different models, and have yet to carry out many studies on alternative teaching. In 2015, Keeley (2015) conducted a study about student and teacher perceptions of 06 co-teaching models. The setting was in an English Language Arts classroom with 2 co-teachers and 37 students with disabilities in a junior school in America. Within 10 days, all co-teaching models were conveniently applied and the data was collected by two rubrics for the teachers and students. The data was then analyzed using ANOVA. The result confirmed the generally positive perception of both teachers and students towards co-teaching strategies despite some slight differences across models. For alternative teaching, the participants assumed that this model could generate an unbalanced classroom and deficient students could suffer long, separated sessions.

Also, Boland, Alkhalifa, and Al-Mutairi (2019) completed a study on applying co-teaching models to enhance students' overall academic English language skills. The quasi-experiment was employed as the study design with the participation of 24 female students and 02 teachers in a tertiary institution in Kuwait. After a 6-week experiment with all co-teaching models, 2 groups, control and experimental ones, sit a test to measure their improvement in 4 skills. The yielded data was analyzed by independent t-test. The result confirmed the effectiveness of co-teaching models in improving students' language performance. Despite the fact that the two studies investigated the effect of co-teaching models, yet alternative teaching model was not the prominent model of study. Also, the aims of the research did not solely concentrate on listening skill as in the current teaching context.

As discussed earlier, it is a need to conduct another research to explore the effect of alternative teaching model on assisting lower-level students and the whole class in the computer-assisted listening course. More importantly, due to the mismatching of the co-teachers' schedules, the alternative teaching model was implemented within the initial 15 minutes of each session, namely the intervention. Friend and Bursuck

(2012) suggested that the remedial grouping in alternative teaching is not necessarily carried out the entire session, but occasionally due to the needs of the students. Thus, the 15-minute intervention is an appropriate treatment for the context of research.

Research question

Does the alternative teaching model with 15-min interventions improve EFL students' listening performance?

METHODOLOGY

Settings and participants

The study was conducted at the Faculty of Foreign Languages, Van Lang University. The Faculty officially launched the Listening course on Moodle system in 2017 for Listening 1 and Listening 2 for first-year English major students. The research course was Listening 1, consisting of 10 sessions, 2.5 hours per session. "Tactics for Listening Expanding (3rd Edition) Student Book", by Jack C. Richards published in 2012, was employed as the teaching material. The English Listening 1 course, carried out on Moodle, aims to equip students with essential listening skills that enable them to be well-prepared for level B1 –CEFR examination.

With regard to the participants, there were 39 first-year students in 2 intact classes invited to take part in the research. The two available classes were named the Control Group with 18 students and the Experimental Group with 21 students. Two co-lecturers were also engaged in this research. Two groups, control and experimental, attended two intact classes one day per week, each session lasted for two hours and a half. Students in two groups were required to do homework and to review taught lectures at home after every lesson. The syllabus and the teaching material which have been applied for two classes are the same. Regarding participants' demographic, they were freshman students aged from 18-20 years old including 26 females and 13 males from two intact English classes which were conveniently drawn from the population of 900 freshmen taking in the first semester of the academic year 2019-2020. Since CT model is technically conducted by two teachers, the two intact classes must be chosen based on the flexibility of the teachers' schedule. Turning into students' English background knowledge, most students studied English from primary school to high school for nearly 12 years, whereas some of them has learned English since secondary school, around 6 years until now. They all passed the English test in National High School Graduation

Examination which was administered by Vietnam Ministry of Education and Training; however, there is one deficient point in this test in which listening skill was not directly tested. Thus, the students' listening proficiency were not drawn from the test.

Co-teaching model

Two teacher-participants collaborated in lesson planning and teaching process and professional discussion. In the course of the research, two co-teachers prepared the lesson plans, teaching materials and created the activities, namely quizzes, in the Moodle system together. The in-class teaching process was also conducted together within the initial 15 minutes for each session. After every session, two teachers spend time on self-reflection and discussion about students, especially deficient ones, the teaching and learning process for the upcoming sessions.

The 15-minute intervention was implemented in the following sequence. For each lesson, the teachers assigned an e-learning video content derived from the course book, which is a sub-skill in listening, accompanied by a quiz to assess students' level of comprehension. Students who watched the video and scored under 5 points over 10, the cut-score point, would be grouped and be applied to the treatment. In the following in-class session, while one teacher helped the rest of the class either revise the lesson or do some listening activities, one teacher would assemble deficient students, based on the result of the quiz. Within 15 minutes, the teacher retaught the content from the video and assigned an interventional quiz in Moodle to reevaluate the students' performance. After the intervention, the teacher working with lower-level students collected the data from the interventional quiz, ungrouped and left the classroom.

Research design

In the context of the research, random assignment was impractical as the researcher was able to approach two intact classes. Therefore, the present study employed quasi-experimental research, with the experimental group and the control group, as the main study design so as to endure with the limitation in choosing participants (Creswell, 2012; Griffiee, 2012). A pre-test and post-test were administered at the beginning and the end of the course to assess any discrepancies between the two groups, in terms of listening proficiency.

The application of Co-teaching model

The research procedure lasted for approximately 8 weeks from week 3

to week 10.

1 Stage 1: week 1 and week 2

In this stage, the freshman students were instructed on how to get themselves familiar with utilizing the Moodle system in the Listening 1 course. Within two first weeks, two lecturers also observed 39 participants in serving the purpose of identifying students' levels through daily conversation or student's in-class exercises. At the end of week 2, all participants were required to conduct a pre-test, employed from test 1 of the Cambridge English Preliminary 8 (Cambridge English, 2014), on the Moodle system.

2 Stage 2: from week 3 to week 10

Once the participants were accustomed to learning listening on the Moodle system, the initial 15-minute intervention was employed exclusively for the Experimental Group to collect data for research findings. On the contrary, Control Group was taught normally without any intervention.

3 Stage 3: week 10

At the end of the last session of the course, a post-test was conducted on two groups to collect final data for analysis.

Data collection and analysis

According to the Listening 1 course' objective, students finished the course are expected to obtain level B1 (CEFR) in listening skill; thus, the pre-test and post-test employed the listening sections of test 1 and test 2 from the Cambridge English Preliminary 8 of Cambridge University Press respectively.

Data collected from the pre-test and post-test were then analyzed using SPSS (version 23). Initially, an independent sample T-test was carried out to analyze the difference between the two groups on the pre-test score. After the treatment period, another independent sample T-test was conducted to measure the mean difference between the two groups' post-test data.

FINDINGS

Before applying treatment, Independent Sample T-test was run to analyze the pre-test data of the two groups. In case there was a significant discrepancy between the two groups' proficiency, the study could be deferred; otherwise the researcher could take steps further to

apply the 15-min intervention with the alternative-teaching model to the experimental group.

Table 2

Pre-test Independent Samples Test

Group	N	M	SD	MD	t	df	p
Control	18	4.196	1.111	-0.252	-0.523	37	0.604
Experimental	21	4.448	1.761				

Table 2 shows the results of the independent T-test of the pre-test stage. The Mean score of the control group (M=4.1961; SD= 1.111) is lower than that of the experimental group (M= 4.448; SD= 1.761). However, the independent samples t-test shows that this difference is not statistically significant (t (37)=-.523, P=0.604 >0.05). Hence, it can be concluded that the gap between the two groups' pre-test performance was not significant, albeit minor discrepancy. In other words, the context is qualified to conduct quasi-experimental research.

Table 3

Post-test Independent Samples Test

Group	N	M	SD	MD	t	df	p
Control	18	5.219	1.618	-1.438	-2.482	37	0.018
Experimental	21	6.657	1.946				

Table 2 and Table 3 give information about the pre-test and posttest groups statistic. The average post-test scores of the control group (M=5.219) and experimental group (M=6.657) are higher than those of pre-test, M=4.196 and M= 4.448 respectively. This means both groups show certain improvements after the course. To be more specific, in both traditional CALL classroom and Alternative teaching CALL classroom, students are able to take chances to improve their listening skills.

To be more specific, Table 3 shows the results of the independent T-test of the post-test stage. It can be seen that the average post-test score of the experimental group (M=6.657; SD=1.946) was higher than that of the control group (M=5.219; SD=1.618). The independent samples T-test of the post-test shows that the difference in the post-test of the two groups is statistically significant (t (37)=-2.482, P=0.018<0.05). Thus,

the analyzed data indicates that applying the alternative teaching model, with 15-min intervention, in CALL is more effective than the traditional CALL when it comes to the issue of enhancing student's listening proficiency.

Looking at the standard deviation data of two groups in table 2 and table 3, the increase of the data between pre-test and post-test of the experimental group is less than that of the control group. Indeed, the experimental group has the pre-test standard deviation of 1.761 and that of the post-test is 1.946, a gain of 0.185; whereas the control group's pre-test standard deviation is 1.111 and the figure of post-test is 1.618, an increase of 0.507. This could be interpreted that after the course, although the deviation among students' listening ability of the experimental group was higher than the data of the control group, indicating a much more mixed-level class, these gaps seem to be lessened within the group. Thus, the treatment shows its effectiveness in supporting lower-level students during the course.

DISCUSSION

For the research question of the study regarding whether co-teaching model improves EFL students' listening performance, the researchers ran Independent Sample T-test to determine whether there was any significant difference in the post-test scores between the control and the experimental group after the treatment. Based on data analysis and findings, it can be inferred that alternative teaching on the Moodle system with 15-minute interventions significantly improves students' listening performance in comparison with only employing Moodle on the Listening 1 course as usual. The results of the current study were in agreement with previous researchers Keeley (2015) and Boland, Alkhalifa and Al-Mutairi (2019) who concluded that co-teaching, including alternative teaching, is an effective teaching model for the heterogeneous class as it could greatly support deficient learners to keep pace with the rest of the class.

Look on another side of this study, even there could be initial evidence confirming that CT help to lessen the gaps amongst students in a mixed-level class, further studies need to be taken to justify the long-term effects of this model. Needless to say, this finding could be considered as a pivotal factor in shedding light on the application of CT model with CALL for heterogeneous class.

IMPLICATIONS AND LIMITATIONS

The research's findings have pedagogical implications for applying CT in

teaching listening on the Moodle system to support weak students and reduce teachers' workload. Moreover, this study could be a useful starting point for future research for the following aspects of teaching listening. First and foremost, further research needs to be conducted to examine the effects of CT on the Moodle system in narrowing the gaps among students' competency in a heterogeneous class so that no students will be left behind in learning progress. Second, online teaching programs could be utilized as a tool to conduct the 15-min CT intervention in order to maximize the effect of ICT in language learning. Besides, these distance-learning applications could be taken as an effective tool to deal with teachers' schedules overlapping and time conflicts. Third, to improve the effectiveness of CT, there could be a combination of alternative teaching with 15-minutes interventions and the so-called model "One Teach- One Observe". Last but not least, this 15-minute intervention could be a practical model for building up teachers' internship programs in which the teacher trainees would be in charge of the intervention section. This could not only grant opportunities for students of TESOL practice their teaching skill, under the observation of the lecturer, but also effectively reduce lecturers' workload.

Although pre-test data showed no significant difference between the two groups, the results of the study could not be generalized to different contexts, yet a source of reference. It is because this research was conducted by using quasi-experimental research and applied in small-size samples. One more limitation of this study is that students' attitude toward the application of using Moodle system in collaborative teaching listening has not been researched which leads the fact that further study regarding this matter needs to be conducted in future. Finally, with in the scope of the research, the interventions were not comprehensively support lower-level learners as some less proficient students had not been fully identified. This is due to the fact that 8 quizzes from 8 weeks are not enough to fully identify all lower-level students as some students may get 5, the cutting score, or just above it. There may be some aspects in listening that they would not perform well if there are some more time to further investigate.

CONCLUSION

The purpose of the research was to investigate how CT model could be applied in CALL Listening 1 course, using the Moodle system, at the tertiary level. It was concluded from the findings that this teaching model improved students' listening performance during the 8-week experiment. More importantly, the students' gaps were narrowed down

in the experimental group, which confirmed the effectiveness of the CT model in teaching the heterogeneous class. Also, the results of the current research reconfirmed the efficacy of employing Moodle activities on the students' listening performance. However, the positive results of this study also depend on the teachers' professional teamwork, available facilities, students' comfort of using technology, and students' ICT knowledge. Besides, the current study also contributes to the literature in terms of creating learning opportunities for every student in the heterogeneous class, especially for lower-level students and reducing teachers' workload. It is essential to conclude that collaboration in teaching and taking advantage of technology in teaching English are likely on the trend of solving the problem of mixed-level and large size classes. At the age of 21st century, in searching for an ultimate solution to deal with students' gap in learning and teachers' workload burden, collaboration in CALL climate could open a door that leads to the success of teaching and learning English.

THE AUTHORS

Lu Dinh Bao is an EFL lecturer in the Faculty of Foreign Languages at Van Lang University, HCMC. He did his undergraduate studies in English Language and Literature from University of Social Sciences and Humanities (VNU-HCM) and holds a Master of Education in TESOL from Edith Cowan University, Western Australia. His research interests include teacher professional development, e-learning, collaborative teaching, content and project-based learning.

Vo Thi Thu Hang has been committed to teaching English in several institutions in Vietnam including onsite and online English coaching and training for more than 8 years. She did her postgraduate diploma in TESOL from Open University-HCMC and holds a Master degree in TESOL from Victoria University, Australia. Currently, she is as an EFL lecturer in Faculty of Foreign Languages at Van Lang University, HCMC. Her research interests include teacher professional development, learners' autonomy, teaching integrated skills and CALL.

REFERENCES

- Alismail;McGuire. (2015). 21st Century Standards and Curriculum: Current Research and Practice. *Journal of Education and Practice*, 2.
- Boland, D. E., Alkhalifa, K. B., & Al-Mutairi, M. A. (2019, November). Co-Teaching in EFL Classroom: The Promising Model. *English*

- Language Teaching*, 12(12), 95-98.
- Cambridge English. (2014). *Cambridge English Preliminary - Preliminary English Test 8*. Cambridge University Press.
- Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (4th ed.). Pearson.
- Dudeny, G., & Hockly, N. (2007). *How to Teach English with Technology*. Pearson Longman.
- Fenty, N. S., & McDuffie-Landrum, K. (2011). Collaboration through co-teaching. *Kentucky English Bulletin*, 60(2), 21-26.
- Friend, M. (2013). *Co-Teach! A Handbook for Creating and Sustaining Effective Classroom Partnerships in Inclusive Schools* (2nd ed.). Example Product Manufacturer.
- Friend, M., & Bursuck, W. D. (2012). *Including Students with Special Needs: A Practical Guide for Classroom Teachers* (6th ed.). Pearson.
- Griffie, D. T. (2012). *An Introduction to Second Language Research Methods: Design and Data*. TESL-EJ Publications.
- Keeley, R. G. (2015, June 1). Measurements of Student and Teacher Perceptions of Co-teaching Models. *The Journal of Special Education Apprenticeship*, 4(1).
- Laar;Deursen;Dijk;Haan. (2017). The relation between 21st-century skills and digital skills:. *Computers in Human Behavior*, 4.
- Murawski, W. W. (2009). *Collaborative Teaching in Secondary Schools: Making the Co-Teaching Marriage Work!* Corwin Press.
- Scruggs, T. E., Mastropieri, M., & McDuffie, K. A. (2007, July 1). Co-Teaching in Inclusive Classrooms: A Metasynthesis of Qualitative Research. *Exceptional children*, 73(4), 392-416.
- Shulman, J. H., Lotan, R. A., & Whitcomb, J. A. (1998). *Groupwork in Diverse Classrooms: A Casebook*. Teachers College Press.
- Skehan, P. (1998). *A Cognitive Approach to Language Learning*. OUP Oxford.
- Ur, P. (2012). *A Course in English Language Teaching*. Cambridge University Press.