

A Study on the Application of Learning Community in Listening Teaching for English Majors

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Abstract

Learning Identifying evidence-based teaching and learning strategies to ease teaching challenges and improve students' performance becomes increasingly important. This research investigated English majors' performance (metacognitive knowledge about listening and listening comprehension) and perception of the Learning Community (LC) in a university in the southwest of China. Based on the results of the listening test in the College English Test (CET-4), a sample of 80 students was involved in the empirical teaching. They were randomly assigned to an experimental class (EC) and a control class (CC) on average. Afterward, both groups completed a questionnaire to gauge their metacognitive knowledge about listening and a pretest to assess their listening comprehension. Then, two groups were taught using different teaching modes. The students in EC were given learning tasks in the LC environment where they were provided with interaction opportunities and evaluated by a multi-assessment system. In contrast, those in CC received traditional teaching mode, with typical instructor-based teaching and assessment. After 18 weeks of teaching, both groups were given the post-test for listening comprehension. And 12 students from EC were randomly selected and interviewed. According to the detailed analysis, students' listening comprehension developed considerably in the LC environment after a semester's instruction. But, the improvement in this aspect in EC was not significantly different from that in CC. The reason contributing to this result may be that the students in both groups were relatively weak in this aspect before the study, especially when the students in EC were weaker than those in CC. In this situation, the metacognitive knowledge about listening might not play its full role in the development of this ability within a short period of teaching. However, even so, the students' feedback for the application of LC in EC was overwhelmingly positive. They were able to develop interest, motivation, and listening comprehension, as well as metacognitive knowledge about listening while experiencing less anxiety thanks to the LC, multi-assessment and reflection. Finally, the conclusions, limitations and suggestions for further studies were provided.

Keywords

Learning community; listening comprehension; metacognitive knowledge; listening strategies; high education; listening teaching.

1. Introduction

The expectation for English majors in the 21st century is becoming higher than ever. They are expected to have teamwork skills and master professional skills in the target language (Garrison, 2015). Listening comprehension is an essential and indispensable skill for language learning (Birjandi, P., & Rahimi, 2012), and it has always been of great interest to researchers in EFL/ESL (Fiani, 2018). However, listening teaching for English majors is encountering

increasing challenges. First, the teaching approach is rigid (Shu, 2021). Taking an overview of listening teaching, teachers adopting traditional teaching approaches are not rarely found. They tend to adopt summative assessment (Wilson-Armour, 2020) to simply evaluate the outcome of listening (Fiani, 2018) without adequate guidance on metacognitive knowledge about listening. Therefore, without conscious of metacognitive knowledge about listening, or metacognitive strategies for listening (Goh, 2002), most students' listening comprehension has not developed successfully (Vandergrift, 2004)(Vandergrift, L & Goh, 2012), though they have learned English for over 10 years.

In addition, this ability has been perceived as a challenging skill to master and has increased students' anxiety (Rahimirad, 2014). Most students tend to associate low listening ability with their limited vocabulary, background knowledge, and speakers' fast speaking (Fiani, 2018). However, such association not only brings them a sense of passivity and helplessness but also makes them demotivated (Graham S., 2006). Besides, the decreasing teaching periods make listening teaching more challenging in China (Shu, 2021). This means that teachers have to assign more listening tasks than before. This will add to students' sense of failure and hopelessness (Field, 2002), and thus, seriously hinders improving their listening comprehension. Therefore, the problems in listening teaching mentioned above have been the main obstacles to cultivating English majors' listening comprehension. Then, the researchers are exploring pedagogical and methodological principles to remedy the present situation.

The existing literature reveals that Learning Community (LC) enjoys multiple merits that may help settle the present problems of traditional listening teaching mode and improve the effectiveness of listening teaching. First, the teaching in LCs is student-centered and focuses on the positive role of students (Fadeke Adeola Atobatele et al., 2024). The learners are provided opportunities and facilitated by the facilitators, including parents, experts, and teachers to organize learning activities through which, they can divergent perspectives of what they are to learn (Garrison, 2015), cultivate critical and collaborative thinking (Wen & Zhang, 2020) and the problem-solving ability (Voogt & Roblin, 2012). In addition, LCs emphasize the process of learning and employ dimensional assessments, which promote learners' engagement and persistence. The group members in LCs are evaluated by self-assessment, peer assessment (Sridharan et al., 2018b) as well as group assessment (Strijbos, 2016). During such a learning process, students' participation and persistence in learning can be stimulated (Johnston & Miles, 2004). Besides, LCs reduce negative impacts on students' learning outcomes and thus, decrease their learning anxiety (Magana et al., 2023). In LCs, students not only intensively engage in social activities with new knowledge, but also are provided with social support networks and academic resources, as well as communicative opportunities.

Enjoying merits of high participation, productive learning outcomes, overall acceptance and low learning anxiety among students within high education settings though, literature on LCs' impacts on students' listening comprehension is rarely found (Bozorgian, H., & Shamsi, 2023), and its research is still in its infancy (Su et al., 2024). Therefore, to improve the present listening teaching and solve the problems mentioned above, this study proposed a hypothesis of applying LCs in listening teaching for English majors and conducted empirical teaching in a sample of undergraduate English majors (N=80) in China. During the intervention, several association between LCs and learners' listening comprehension, listening metacognitive knowledge about listening as well as satisfaction with this empirical teaching were explored.

2. Literature Review

2.1. Literature Review of LC

The concept of community was first introduced by F. Tonennies in his book *Community and Society*. Then Earnest Boyer articulated the concept of LC in 1995 in *Fundamental Schools*

(Boyer, 1995). According to him, an LC is an organization of individuals who learn together with a shared mission and a shared vision. Then, Wenger defined an LC as a collection of individuals who share a common interest, engage in joint activities, and collaborate in a meaningful manner to enhance their learning and knowledge (Wenger, 1998). Dillenbourg further proposed that a successful LC is expected to be involved in a collaborative environment, a collaborative interaction, and a collaborative mechanism (Dillenbourg, 1999). Based on these outcomes, the following scholars came up with principles, features, and structures of a satisfying LC (Love, 2012).

The present literature emphasizes the importance of group structure (Hankins, 2022). Cornejo's research reveals that groups should be of no more than 4 members to avoid free-riding behavior (Cornejo Happel & Song, 2020). He also suggests that learners' personalities, academic abilities, and backgrounds should be considered when grouping. Also, to promote learners' engagement and motivation (Sivan, 2000), facilitators' guidance (Kaner, 2014), timely feedback and appropriate assessment design (Varela et al., 1997) are the major challenges in the application of LCs.

As LCs have been widely discussed, they have been frequently applied in teaching different settings, education management, and scientific and engineering training all over the world. At present, most studies are exploring the rationality and feasibility of LCs in different areas, and suggest that LCs enjoy an overall acceptance among learners, and enhance their sense of belonging (Peacock & Cowan, 2019). Also, LCs contribute to learners' academic performance and professional development (Salleh & Ibrahim, 2020), for the reason that learners' levels of professional knowledge, self-efficacy, and self-professional beliefs (Wen & Zhang, 2020) were positively motivated by their participation in LCs (Rumiantsev et al., 2023).

However, LCs also witness several challenges. One of the challenges in LCs is the effective design of teaching activities (De Hei et al., 2016), in which students can fully positively play their roles while teachers can minimize their role of guidance. Next, effective assessment of students' performance (Meijer et al., 2020) is another challenge. Besides, how to maximize students' acceptance and satisfaction of LCs is under investigation (Mohammed, 2020).

2.2. Literature Review of Listening Comprehension in High Education

As the researches on listening comprehension in higher education go further, much literature indicates that listening comprehension is no longer considered a passive skill or only to extract meaning from text (Fiani, 2018). Instead, it has been regarded as a skill to support the growth of other aspects of FLL including speaking and reading (Chang and Millet, 2015), and can be taught integrated with speaking or separately as a particular subject (Fiani, 2018).

To improve students' listening comprehension performance, the literature focuses on the rationality of giving metacognitive instruction and its possible impacts. Ample evidence from current researchers in EFL contexts reveals that students should be taught listening strategies (Mendelsohn, 1998), especially the appropriate strategies of metacognitive knowledge about listening (Goh, 2002) (Vandergrift, 2004), because they are contributing to students' better development of listening comprehension than those who did not receive such instruction (Vandergrift, L & Goh, 2012).

Other research in this direction has not found significant changes in listening comprehension (Goh, C., & Taib, 2006) for the possible factors of low proficiency (Rahimirad, 2014), characteristics, and context (Chen, C. C., & Huang, 2011). Currently, although there is ample evidence of metacognitive instruction in listening comprehension and metacognitive knowledge, the literature on listening on this issue remains a pedagogical gap in listening teaching (Shu, 2021), hinders the innovation of this course (Su et al., 2024), and leaves the challenges of this course mentioned above unsolved (Su et al., 2024). Besides, the available literature on listening teaching indicates that collaborative learning and blended teaching

(Rivera, 2019) are just predominant practices (Meijer et al., 2020) and that the LCs have not yet made major inroads into this course (Ng & Latife, 2022) with undergraduate English majors being relatively under-researched.

3. Research Questions:

To remedy the present issues in listening teaching, we captured a golden opportunity provided by an undergraduate course in listening in 2023, where we implemented an empirical teaching of LC. The teaching process consists of three parts, collaborative learning before, in, and after class, to answer the following research questions:

Research question 1: What is the current situation of metacognitive knowledge about listening among undergraduate English majors?

Research question 2: Does the LC help improve the learners' listening comprehension?

Research question 3: What is the acceptance of the application of the LC in listening teaching for English majors?

4. Methodology

4.1. Participants

The participants were 80 first-year English majors (M=18; F=62; mean age= 18.245 years, SD=.730) from a university in the southwest part of China¹. According to the pilot test questionnaire, all of them take Chinese as their native language and English as their first foreign language. None of them had studied abroad or received any professional systematic listening instruction or taken any particular listening-related courses.

There are three main reasons why they were chosen to be the participants. One reason is that all of them had taken the National College Entrance Examination, being at a reasonably proficient level of English to work with authentic language in listening teaching. Another reason is that they were to undertake the College English Test Band 4 (CET-4), which is one of the most distinguished large-scale English tests in China (Su et al., 2024) in the first year of college study. One more reason is that they were to take the Test for English Majors Band 4 (TEM-4) in the second year of college study. The listening test in both tests is so challenging that they had an immediate need for focused instruction. The participants were randomly divided into two classes, with 40 students in each class.

4.2. Instruments

Test

To establish the homogeneity of language proficiency, the subjects were given a listening test, which was randomly selected from the listening tasks of the CET-4 test paper. The score of the test is 100, with a higher score reflecting the learners' better listening comprehension proficiency.

Questionnaire

The questionnaire was used before the intervention to determine the student's metacognitive knowledge about listening. It was carefully designed based on the pedagogical design of this study and the definition of metacognitive knowledge about listening proposed by Christine C.M. Goh (Christine C. M. Goh, 2010), which was frequently quoted by scholars in this field (Ahmadi Safa M., 2018)(Ahmadi Safa, M., & Motaghi, 2024), shown in Table 1.

The questionnaire consists of two parts, with 23 questions in total. The first part consists of 7 questions, testing students' background information, including scores of the National College Entrance Examination. The second part consists of 16 questions, testing their metacognitive knowledge about person knowledge, task knowledge, and strategy knowledge about listening

(Table 1). This part employs a four-point Likert Scale: 1=hardly ever; 2=seldom; 3=sometimes; 4=often, with a total score of 64. A higher score reflects the learners' better mastery of these aspects.

Tested by SPSS 27.0, the results demonstrate that this questionnaire is of good reliability and validity (Cronbach's Alpha=.849, N=80), and overall validity (KM and Bartlett's Test=.769, P=.000), higher than .7. The reliability and validity for each element is higher than .7 (P=.000) (Table 2).

Table 1. Types of Metacognitive Knowledge About Listening (Christine C. M. Goh, 2010)

Person Knowledge	Self-concepts and self-efficacy about listening Specific listening problem, causes and possible solutions
Task Knowledge	Mental, affective and social processes involved in listening Skills (e.g. listening for details, gist) needed for completing listening tasks Factors that influence listening (e.g. text, speaker)
Strategy Knowledge about listening	Ways of improving listening outside class Types of cognitive and metacognitive strategies General and specific strategies to facilitate comprehension and cope with difficulties Strategies appropriate for specific types of listening task Ineffective strategies

Table 2. Descriptive Statistics of Reliability and Validity of Questionnaire

Total cases		Reliability Statistics		KMO and Bartlett's Test	
Dimension	N of Items	Cronbach's Alpha	Sig	KMO	Sig.
Dimension1	5	0.799	.000	0.762	.000
Dimension2	5	0.729	.000	0.754	.000
Dimension3	6	0.782	.000	0.732	.000
All Dimensions	16	0.849	.000	0.769	.000

Interview

After the intervention, semi-structured interviews were conducted to probe the learners' perception of the experimental experience. The interviews outlined 6 questions, among which 5 questions focused on the teaching activities designed according to the principles and the features of LCs. Another question is exploring the suggestions for the LC in EC.

4.3. Intervention Procedure:

To adhere to the research ethics regulations, the research had informed the participants of the purpose of the study, and that their participation would be voluntary before the study. Also, the researcher had promised that any personal data collected by this study would be de-identified, treated confidentially, and deleted after the completion of the study. Then, the study was supported and went smoothly at the beginning of the autumn semester of 2023.

The LC learning intervention lasted one semester, 135 minutes for each lecture, and once a week, totally 18 weeks. To minimize the empirical error, the same teacher conducted all lectures for the two classes at the same stage of the same semester. The students were taught the same learning content with the same textbook and the same teaching equipment. During the experiment, the empirical class (EC) received listening instruction in an LC, while the

controlled class (CC) received it in a traditional teaching mode, with the teacher playing the audio files, checking and evaluating students' products (Mafoon, 2020).

Careful consideration of the LC principles, features, and structure was given to the construction of the LC in the empirical study. Also, key elements: positive interdependence and individual accountability (Cornejo Happel & Song, 2020), facilitators, and barriers to engagement and effectiveness (Kaner, 2014) were put into consideration. Further, during the experiment, the facilitators (the teacher and the author) designed systems of self-assessment (Varela et al., 1997) and peer assessment (Sridharan et al., 2018a) related to the learning activities to promote learners' engagement and motivation (Li & Grion, 2019). The intervention process is demonstrated in Fig. 1.

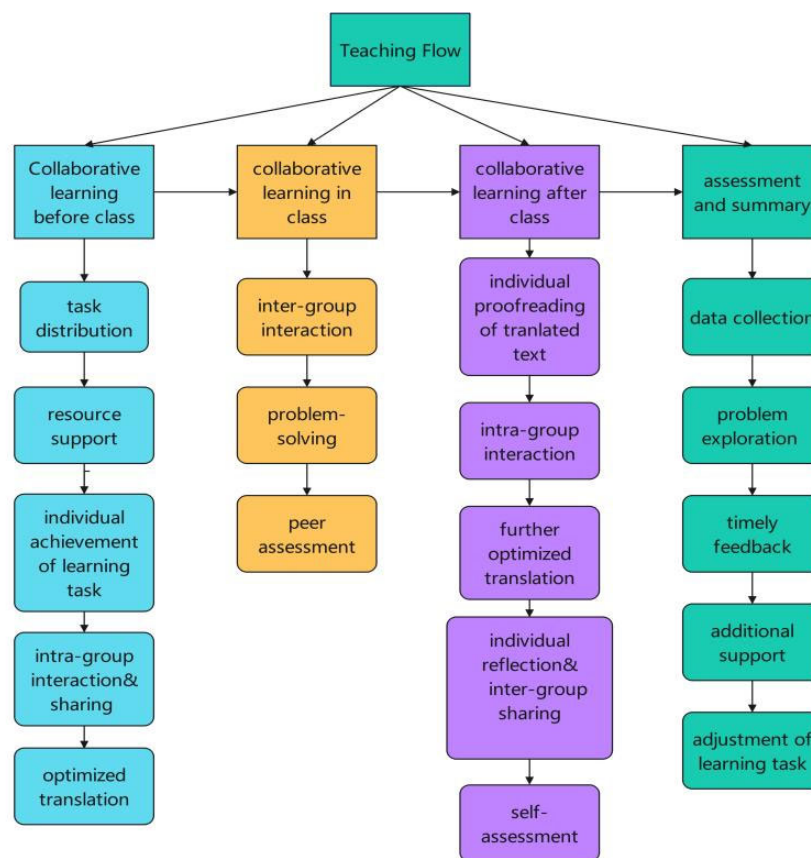


Figure 1. Teaching flow of listening teaching in LC

4.4. Data collection

The experiment was conducted during the autumn semester of 2023, and all data discussed in this study were gathered by a questionnaire, tests, and interviews. The tests were given after a pilot test. The pre-test was given in the first lecture of the semester. Students were asked to finish it within 30 minutes without checking any references. The audio file was played only once. The process of collecting data rigidly followed the gradation criteria of the listening test in CET-4. Then, the students were asked to finish the questionnaire about the metacognitive knowledge about listening within 6 minutes.

After the intervention, they were given the rest surveys in the last lecture of the semester. After that, 12 students in EC were randomly selected and interviewed during the same period of the next day. Each interview lasted for about 15 minutes. During the interview, the researcher made an effort to reduce the halo effect, and all interviews were recorded by a voice recorder with students' permission.

4.5. Statistical analyses

To answer the research questions presented above, the study adopted a pretest/post-test two-treatment design that would allow within-group and between-group comparisons (Møgelvang et al., 2023).

To answer the first question, the data from the questionnaire were analyzed to evaluate the learners' metacognitive knowledge about listening. The figures for all dimensions were calculated in detail to examine learners' metacognitive knowledge about listening.

To answer the second question, the scores of tests were analyzed to investigate the impacts of the LC activities on learners' listening comprehension. Although the participants involved in each class were over 30, a range of confirmatory analyses were conducted through SPSS Statistics 27.0 (IBM Corp, 2021). Before doing the formal t-test, the researcher ran factor analyses and tested factor structure, exploratory normal distribution, and internal consistency. Then, we conducted an independent sample t-test, a paired sample t-test, and an ANCOVA test to compare the difference between the two aspects, with the alpha value being .05 (two-tailed)(Cronbach, 1951).

To answer the third question, the data from the interviews were summarized to describe the learners' perception of the affordances and constraints of the LC in EC.

5. Results

This section collected descriptive and inferential information on metacognitive knowledge about listening, listening comprehension, and the results of the interviews given to the students in EC after the empirical teaching. All variables related to the study met assumptions of normal distribution and acceptable reliability (Cronbach, 1951) in two sets of data (shown in Table 3).

Table 3. Tests of Normality for tests in EC&CC

		Tests of Normality											
		Class	N	Kolmogorov-Smirnova		Shapiro-Wilk		Skewness		Kurtosis			
				Statistic	df	Sig.	Statistic	df	Sig.	Statistic	Std.Error	Statistic	Std.Error
Score of English in the National College Entrance Exam Questionnaire	Pre-test	CC	40	.098	40	.200*	.978	40	.600	-.489	.374	.380	.733
		EC	39	.093	39	.200*	.976	39	.550	-.421	.378	.268	.741
	Post-test	CC	40	.098	40	.200*	.976	40	.536	.384	.374	-.258	.733
		EC	39	.094	39	.200*	.992	39	.994	.003	.378	.069	.741
	Difference between tests	CC	40	.066	40	.200*	.990	40	.980	.028	.374	-.415	.733
		EC	40	.118	40	.170	.948	40	.064	.665	.374	-.263	.733
		CC	40	.088	40	.200*	.962	40	.193	-.528	.374	-.313	.733
		EC	40	.092	40	.200*	.979	40	.662	-.322	.374	.050	.733
		CC	40	.111	40	.200*	.958	40	.144	-.138	.374	-.550	.733
		EC	40	.106	40	.200*	.978	40	.613	-.198	.374	-.045	.733

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction
Pre-Q1=pre-questionnaire1;Post-Q1=post-questionnaire1.
Difference between tests= pre-test - post-test (EC, CC).

As Table 4 shows, there was no significant difference in the scores of pre-test in CC (M=56.70, SD=14.044) and EC(M=55.23, SD=14.330), $t(78)=.465$, $d=.1050$, 95% CI[-4.841,7.791],

$P=.643, >.05$. It indicates that the students' listening comprehension in both classes were at the same level and could be involved in the study.

Research Question 1: What is the current situation of metacognitive knowledge about listening among undergraduate English majors?

80 students took the survey about metacognitive knowledge about listening, with 79 valid responses shown in Table 4. The scores of the questionnaire in both classes met the assumptions of normal distribution and acceptable reliability (Cronbach, 1951)(Table 3).

According to the results of the Independent Sample T-test shown in Table 5, the scores for the two classes were significantly different ($Sig=.048, <.05$), with a difference of 3.22 in the mean score. This indicates that the situation in EC is slightly better than that in CC.

Specifically, as Table 4 displays, the majority of the two groups gave positive responses to the survey, with all 3 dimensions being levels 3 and 4. The former two dimensions are about person knowledge and task knowledge about listening. Although most students showed a rough awareness of the knowledge about the two aspects, nearly 40% of them showed difficulties in these two aspects. In addition, the average scores for these aspects were relatively low, being lower than 12 compared with a total score of 20. By contrast, more students showed a better awareness of strategy knowledge about listening, with 89.74% and 95% respectively. But we cannot ignore the fact that only around 30% of the students in both classes showed a strong agreement with the given items and that 12.82% of them in CC were unfamiliar with the aspect. In short, the data from this survey indicate that there was much potential space for improvement in their metacognitive knowledge about listening.

Table 4. Descriptive Statistics of Questionnaire

Dimension	Class	N of items	Min	Max	Sum	Mean	Level	(CC)N=39(EC)N=40	Percent (%)
Dimension 1(Q8,9,11,13,15)	CC	5	7	16	20	10.83	1	0	.000
							2	18	46.154
							3	21	53.846
							4	3	7.692
	EC	5	7	18	20	11.51	1	0	.000
							2	13	32.500
							3	23	57.500
							4	3	7.500
Dimension 2(Q16,17,21,22,24)	CC	5	5	17	20	11.80	1	1	2.564
							2	8	20.513
							3	30	76.923
							4	1	2.564
	EC	5	9	20	20	12.87	1	0	.000
							2	6	15.000
							3	29	72.500
							4	4	10.000
Dimension 3(Q12,14,18,19,20,23)	CC	6	9	22	24	16.40	1	0	.000
							2	5	12.821
							3	26	66.667
							4	9	23.077
	EC	6	14	22	24	17.23	1	0	.000
							2	1	2.500
							3	25	62.500
							4	13	32.500
Total Score						64			

Research question 2: Does the LC help improve the learners' listening comprehension?

As mentioned above, 80 students took the pre-test of CET. The scores in both classes were not significantly different ($\text{Sig}=.643, >.05$). After a semester's study, both teaching modes have produced noteworthy impacts. According to the results of the two Paired-Sample T-tests shown in Table 6, there was significant difference in the mean score of the differences between pre-test and post-test, with $\text{sig}(\text{two-tailed})=.000, P<.05$. This indicates that both interventions have produced positive impacts on the students' listening comprehension over the whole semester.

Table 6. Means, standard deviations and Paired-samples T-tests for the study variables in CC&EC.

		Mean	Std. Deviation	Std. Error Mean	t	df	Sig(2-tailed)	d
Pair 1	CC Pre-test-Post-test	-10.925	10.164	1.607	-6.798	39	.000	-1.0749
Pair 2	EC Pre-test-Post-test	-9.400	10.973	1.735	-6.478	39	.000	-.8566

To compare which intervention has produced better impacts, we employed an Independent Sample T-test. Beyond our expectation, the mean score of the post-test in EC ($M=64.63, SD=14.740$) was not significantly different from that in CC ($M=67.63, SD=12.423$), with $t(78)=.328, d=.2415, 95\% \text{ CI } [-3.068, 9.068], P=.325, >.05$. This indicates that the students' listening comprehension was still at the same level. But, what cannot be ignored is that the mean scores of two tests in EC were slightly lower than those in CC.

Table 5. Means, standard deviations, and independent-samples T-tests for the study variables in CC&EC.

		Independent-sample T-tests					
	Class	N	Mean	SD	t	P	d
Pre- test	CC	40	56.70	14.044	t(78)	.643	.1050
	EC	40	55.23	14.330	.465		
Post-test	CC	40	67.63	12.423	t(78)	.328	.2415
	EC	40	64.63	14.740	.984		
age	CC	40	18.33	.730	t(76)	.258	.2288
	EC	40	18.16	.547	1.140		
Score of English in National College Entrance Exam	CC	40	126.35	6.986	t(77)	.693	.0896
	EC	39	125.73	6.910	.396		
Questionnaire	CC	40	55.40	6.879	t(77)	.048	-.4674
	EC	39	58.62	7.318	-2.013		

To explore the possible reason for this result, two one-way ANCOVA tests were conducted. According to the results shown in Table 6, because the pre-test was a significant influential factor for the scores of the post-test ($\text{Sig}=.000, <.05, F=79.001, \text{ Partial Eta Squared}=.506$), the adjusted mean score of the post-test in EC (65.129a) did not outdo that in CC (67.121a). Besides, Table 6 also demonstrates that the scores of the questionnaire were not an inferential element to the scores of the post-test, with F being 2.977, Sig being .089, $>.05$, $\text{ Partial Eta Squared}$ being .038. It suggests that the learners' listening comprehension is greatly influenced by their

original level of listening comprehension proficiency instead of their mastery of metacognitive knowledge about listening, though the mean score in EC was slightly higher than that in CC (Table 7).

Table 7. Inferential Statistics of Post-test

Tests of Between-Subjects Effects									
Source	Class	N	Mean	SD	Adjusted Mean	Std. Error	F	Sig.	Partial Eta Squared
Pre-test of CC&EC Class Pre-questionnaire Class	CC	40	67.63	12.423	67.121a	1.525	79.001	.000	.506
	EC	40	64.63	14.740	65.129a	1.525	.852	.359	.011
	CC	40	67.63	12.423	67.029a	2.169	2.977	.089	.038
	EC	39	64.67	14.930	65.277a	2.198	.314	.577	.004

In short, the results mentioned above reveal that although the students' listening comprehension in both classes has not witnessed an obvious difference after a semester's study, its development could be influenced strongly by the learners' original level of listening comprehension before the study.

Research question 3: What is the acceptance of the application of the LC in listening teaching for English majors?

To answer this question, we interviewed 12 students from EC on the following day of the last lecture. The interview consists of 6 structured questions and several open questions.

Question 1: Have you experienced LCs in English during the past years of study?

According to the 12 interviewees, only 2 of them (Student 1, 2) had experienced LCs in the past years of study, and the former experience of LCs helped them accustomed to the present empirical teaching smoothly. But neither of them had experienced this mode in learning English yet (listening was involved in the course of English before college in China). Besides, the LC adopted in the former study was neither so well-designed nor fully applied.

Question 2: Did the activities organized in the LC help improve your interest in listening learning?

Question 3: Are you willing to learn listening in an LC in the following semester?

For the second and the third questions, all interviewees stated that the learning activities organized in the LC had interested them in this course. All of them declared their willingness to learn listening in LC in the following semester. Most interviewees claimed their anxiety over listening because of "new words" (Student 1), "fast speaking" (Student 5), and "new topics" (Student 11) before the study. While in the LC environment, students could "share the tips to catch the answers to the questions" (Student 3) and "share the background information about different topics" (Student 1), so that they were "motivated to explore beyond the given listening materials" (Student 2). All of these interactions add interest to listening learning and willingness to the following learning.

Question 4: Did the activities organized in the LC help you acquire the metacognitive knowledge about listening?

Question 5: Did the activities organized in the LC help you apply the listening strategies in listening?

Towards questions 4 and 5, 11 of the interviewees held a positive attitude that they were "motivated to discuss with members on and off-line"(Student 2), "given different tasks within

groups" (Student 3), so that "members' pronunciation"(Student 8), "listening strategies" (Student 11) as well as "motivation" (Student 12) could be improved and strengthened.

In addition, they were motivated to "remember new words" (Student 3), fulfill their tasks positively (Student 9), and "handle the challenges in the given listening tasks" (Student 7, 9).

But Student 4 also confessed that the communication among group members was quite limited oftentimes because of gaps in relevant background information about the topics, though they were willing to communicate with each other. Some students may ignore reflection after each lecture and skip reflective journals (Students 4, 7,8). This may hinder their absorption of strategies and information about listening (Student 4,7), especially those who are weak at listening (Student 4,7).

Question 6: Would you please give us some suggestions to improve the LCs in the following listening teaching?

When asked the suggestions for the LC in this study, nearly half of the students suggested adjusting the size of groups, especially to reduce the size of groups, like 2 or 3 instead of the present 4 members in a group, to enhance communication efficiency. Another 3 interviewees came up with the suggestions that the range of listening topics and the background information of relatively strange topics be extended and that the key listening strategies be further strengthened. Besides, 8 of the interviewees suggested increasing the whole teaching period and rescheduling the teaching frequency, like two periods for each lecture and twice a week.

6. Discussion

6.1. Main findings

Through constructing an LC in listening teaching for English majors, this study explored whether this mode is helpful for the learners' metacognitive knowledge about listening, listening comprehension, and acceptance of this mode. According to the results of the questionnaire, tests, and interviews, we can summarize the findings in this section.

Research question 1:

The majority in both classes had a shadow awareness of metacognitive knowledge about listening, especially about the first two aspects: person knowledge and task knowledge. Some even had no awareness of these two aspects. As high as 61.54% of them lacked confidence in listening, showing different degrees of learning anxiety. Although they knew some listening strategies, they were unable to put them into practice smoothly. They had trouble overcoming the difficulties in listening. These factors decrease their interest and motivation in learning tasks (Rahimirad, 2014)(Goh, C., & Taib, 2006).

Research question 2:

The mean scores of the post-test in both classes witnessed a significant increase compared with those of the pre-test, which reveals that two modes of instruction had produced meaningful effects on students' listening comprehension. However, the difference between the figures for the two groups was not significant. As mentioned above, one possible reason for this result is that the students' listening comprehension in both groups was at a relatively low level, (the mean scores of the pre-test were lower than 60), especially when that in EC was kind of lower than that in CC. This also proved Rahimirad's research finding (Rahimirad, 2014). What is more, metacognitive knowledge about listening may not produce an obvious positive impact on learners' listening comprehension, especially when this aspect is of low levels (Chen, C. C., & Huang, 2011), though they were provided with interactions about this aspect in the LC environment. This is also a coincidence with Han Fiani's findings (Fiani,2018). Another reason may be that the empirical teaching did not last long enough because the learning products are positively related to the frequency of learning activities (Shu, 2021) and learning periods (Su et

al., 2024). Besides, some factors, including irrational schedules (Maftoon, 2020), and ineffective communication among members (Cornejo Happel & Song, 2020) are also contributing to the unsatisfying learning products.

Research question 3:

However, the results mentioned above do not hinder the learners' overall acceptance of the LC mode in this course. The main reason is that students' learning anxiety decreases in the LC environment where they are provided with opportunities to communicate with facilitators and members frequently (Hilliard et al., 2020), and they are enjoying this innovative learning process (Magana et al., 2023). Further, this positive result not only motivates their interest and motivation to challenge the learning task (Park et al., 2019) (Park H, 2022) but also improves their development of learning ability (listening comprehension) (Cao & Yu, 2023).

6.2. Limitations and Strengths

Although this study was rigidly designed and carried out, it cannot avoid several limitations. One limitation of this study is its small size, only 80 samples. To achieve better in future research, we advise a larger participant pool. Another limitation is its short-term empirical teaching, in which the effects of the LC on the students' listening comprehension may not be fully investigated. And, the results were limited as they only revealed students' metacognitive knowledge about listening before the empirical teaching, without continuous investigation of their development of this aspect at the end of the study. Therefore, the future research desires more about LCs on this aspect and listening comprehension. Besides, this study is restricted to pre- and post-tests for data collection. Future studies are expected to adopt different instruments to collect more reliable qualitative statistics and to provide further exploration of students' listening comprehension.

7. Conclusion

To conclude, this study adds new and precious findings about LCs applied in listening teaching for English majors. It firstly designs a rigid construction of LC in this course and concludes with the positive effects of this mode on learners' learning outcomes, though its effects are not so significantly better than those of the traditional mode of teaching. Next, the findings prove that LCs are feasible and acceptable in listening teaching for this group of students. Our findings are in alignment with theories in LCs, self-confidence, interest, sense of responsibility, learning outcomes, and as well as metacognition. Finally, to promote teaching effectiveness, while constructing LCs in this course, teachers are expected to optimize learning activities and learning tasks and to consider carefully the learners' level of listening comprehension and metacognitive knowledge about listening, especially when they are relatively low in these two aspects.

Note 1 The sex distribution reflected the gender imbalance in the large population of English major students in high education.

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