

## A STUDY ON ASYNCHRONOUS LISTENING INSTRUCTION IN THE EFL CONTEXT

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### Abstract

The present paper concerns itself with a study of the listening instruction in the EFL context . Different from previous research , this paper emphasizes the importance of bottom up training under the assistance of modern educational technique . The instruction model promoted by the research is the Asynchronous Listening Instruction model ( ALI ) . The empirical study shows that ALI is subjectively welcomed by the students and it demonstrates some advantages in the EFL context .

### Key words

EFL context ; English listening instruction ; bottom up ; top down ; asynchronous listening instruction ; independent samples Ttest

### 1 . Introduction

Two views of listening have dominated listening instruction over the last twenty years : the bottom up processing view and the top down interpretation view . The bottom up processing view supposes that listening is a process of decoding the sounds from the smallest meaningful units ( phonemes ) to complete texts . The process is finished in a linear fashion : the phonemic units are decoded and linked together to form words , which in turn form phrases ; phrases are linked together to form utterances , which sequentially form complete meaningful texts ( Nunan 1997 ) . Meaning itself is obtained as the last step in the process . Bottom up view emphasizes the discrimination of acoustic input , because it is the start of the linear decoding . General bottom up strategies in listening include listening for specific details , recognizing cognates , recognizing word order patterns , and etc .

In contrast to the bottom up processing view is the top down interpretation view . It suggests that listeners , employing incoming sounds as clues , actively construct or reconstruct the original meaning of the speaker by utilizing background knowledge of the topic . The expectations activated by the background knowledge could assist listeners interpretation of what is heard and the prediction of what will come next ( ibid ) . Top down strategies take account of main idea comprehension , prediction , inference and so forth .

Both bottom up and top down processes affect listening comprehension , therefore language learners need to be given opportunities to practice each of them . However , the vast majority of the current studies hammer away at top down strategy training ( Liu 1996 ; Huang 1998 ; Li 2001 ; Zhou 2002 ; Tian 2003 ; Zhou 2004 ; He 2005 ; Shi 2005 ; Yuan et al . 2006 ) , while few attempts have been made for bottom up processing ( Wilson 2003 : 335 ; Lu et al . 2004 ) . It has been found that , among the Chinese students , low proficiency students adopt contextual inference and guesswork more frequently than high proficiency students , but unfortunately , most of their guesswork is wrong ( Lu 2004 ) . Some domestic studies reveal that the Chinese college students have trouble in sound discrimination ( Jiang 2006 ; Ma 2007 ) . In a pilot study , we discover that none of the students are able to come up with relevant inference or proper

summary after they listen to the English version of a film clip (from "The Sound of Music"), but 86 % of them are successful in finishing the same tasks after the Chinese version is played. According to the students' explanation, it results from the fast delivery of the English version, which prevents them from correct sound discrimination. This indicates that efficient utilization of top-down strategies is based on sufficient bottom-up comprehension.

Although bottom-up training had been popular in listening instruction before top-down strategy training was promoted, due to the underdevelopment of computer science at the time, it did little more than the introduction to phonetics and the mechanical drills in pronunciation. Research on bottom-up training under the assistance of advanced technology has been rare. To fill this gap, the present research attempts to make an empirical study on an instruction model, which emphasizes the fundamental importance of bottom-up training, and at the same time encourages the learners to obtain practical experience of top-down strategies through practice. The model is named Asynchronous Listening Instruction (ALI) by the authors. While the embryonic form of this teaching model was already in existence in the late 20th century (Professor Li Chun from Wuhan University used the similar model at that time), no research on it has been reported yet.

## 2. Asynchronous Listening Instruction

### 2.1 Technique Support for ALI

ALI is applicable to most multi-media assistant education systems so long as the configurations allow the students to record or to retrieve listening materials from the server, to call and seek individual communication with the instructor when they have problems, and as long as the system allows instructors to monitor each student's practice. An ideal system would permit the instructor to cut into a certain student's practice when the instructor finds it necessary. Such a function operates like this: when the instructor cuts into a certain student's practice by pressing his/her seat number on the instructor's control platform, the student's listening material will automatically stop playing and he/she can only hear what the instructor is saying.

### 2.2 ALI Instruction Processes

#### 2.2.1 Preparation

Certain preliminary trainings on computer operation are necessary. Students should know how to copy or retrieve the listening materials from the server and how to play them. They should also know which button to press when they are in need of assistance. It is advisable to explain to the students beforehand the teaching process and the focus of ALI. Materials introducing listening strategies (both bottom-up and top-down strategies) could be handed out as extracurricular reading materials.

After the students get familiar with the multi-media system, the general teaching process of ALI could be carried out. It consists of four steps:

- 1) Pre-listening instruction
- 2) Learner-centered practice & instructor supervision / assistance
- 3) Task evaluation
- 4) Extracurricular follow-up practice

#### 2.2.2 Pre-listening Instruction

At the start of each class, listening tasks are assigned by the instructor and materials are recorded or retrieved from the server by the students. If the topic is alien to the students, background knowledge should be introduced.

#### 2.2.3 Learner-centered Practice & Instructor Supervision / Assistance

Learner-centered practice is assisted and monitored by the instructor. Students will control their own listening processes at the tempos that are suitable for them. They may stop at any point that hinders their comprehension and replay the part. If the students fail to solve some problems with their own efforts, they are suggested to press the "Call" button on their desks and seek the help from the instructor. Each

students' question is answered by the instructor through the microphone, without interfering with the other students' practice. The monitoring system enables the instructor to check and supervise each student's listening process. We discover that, when in trouble, students of higher proficiency tend to actively seek help from the instructor while those of relatively low level prefer to be silent. Consequently, by cutting into their listening with questions or suggestions, the instructor could offer more assistance to the low proficiency students. The instructor's assistance is offered to the high proficiency and intermediate students only when they "call in".

#### 2.2.4 Task Evaluation

Before the end of the class, answers to the questions are checked and discussed. Common questions and difficult points are also tackled at this time.

#### 2.2.5 Extracurricular Follow-up Practice

In ALI, the students each would proceed with the proper speed according to their own listening competence. Since the amount of assignment is made with the consideration of the high proficiency students, it is very likely that some intermediate students and the low proficiency students would be unable to finish all the tasks assigned in class. Thus the follow-up exercises for them is necessary. With the help of the answers offered in class, the difficulty of the listening materials is reduced, and the low proficiency students would not find the extracurricular work frustrating.

To guarantee the effective operation of ALI, the following points are important: firstly, the Pre-listening instruction should last as short as possible in order to leave sufficient time for the students to do individual practice; secondly, the amount of the assignment is set in accordance with the ability of high proficiency students, therefore students of different levels could obtain sufficient practicing materials from the assignment; thirdly, for the sake of offering efficient assistance to the students, instructors should have a thorough understanding of the students and the teaching materials. It is necessary for the instructors to know which students are in need of more supervision and assistance. Last but not least, discovering and correcting some students' bad habits in listening practice is also an important task.

### 3. Features of ALI in Contrast to Traditional Listening Instruction and Self-access Study

In the traditional listening class, listening materials are played by the instructor for the whole class to practice together. Thus, students of different levels interfere with each other because the class fails to cater to their respective needs. Even among the students with the same level of English proficiency, there exist diversified difficulties and problems. Nevertheless the students are provided with no time to tackle their own problems.

In ALI, although sitting in the same classroom, studying on the same materials at the same period of time, the students control their own listening processes and give the attention on their own difficult points. It has been mentioned that many English learners in China attribute failure in listening to their poor sound discrimination, and accordingly students in ALI are suggested to work actively to discriminate the reduced forms as well as liaisons and to familiarize themselves with the intonation of English by replaying the difficult parts. Through this process, the students would acquaint themselves with the sounds of the language forms that have caused them trouble. Even if they are not able to discriminate the sounds at the time, the acoustic sounds that have caused them trouble would leave them a deep impression. After they get the answers either from their instructor or from the reference book, they would remember the sounds. When they are confronted with these sounds again in the future, they could easily identify them. Furthermore, in ALI, high proficiency and low proficiency students no longer hold down each other, because the former could proceed at "top speed", and the latter, as they could receive timely assistance from the instructor, are highly inspired and motivated.

ALI is also different from self-access study. Since self-access study guarantees students the total freedom of choice in practicing time and content, the students usually become disoriented: they have no idea about how much they have achieved and how much the others have learned, nor do they know clearly which materials are suitable for them. Therefore "blindness in material selection" and "random practice" are usually the results (Zhang & Li 2002). In ALI model, however, all the students face the

same tasks and are under the supervision of the instructor. The high proficiency students, if they could finish the assignment within class, could have the extracurricular time fully at their own disposal; while the low proficiency students, if they fail to finish all the exercises in class, could finish the rest as the extracurricular follow-up exercises. In this way, all the students keep the same pace in general term and they would always know their position in the coordinates of the class.

#### 4. Empirical Study

A deductive research is adopted in this study to examine the effectiveness of ALI in contrast to the traditional listening instruction. Deductive research is the process of reasoning, in which a conclusion follows necessarily from the stated premises. Deductive research is hypothesis-driven and its purpose is to testify the hypothesis and form a new theory. Thus deductive research is also called hypothesis testing research (Liu 2002).

##### 4.1 Hypotheses

The hypotheses of the present research are: (1) Students subjectively accept ALI; (2) ALI is more effective than the traditional listening instruction in the EFL context.

##### 4.2 Subjects

The sample population in this study includes 130 non-English majors from Huazhong Agricultural University. The students are divided into two classes according to their majors. The two classes are randomly put into the control group and the experimental group, with 62 students in the experimental group and 68 in the control group. The two classes are taught by the same instructor.

##### 4.3 Instruments

The instruments used in this research comprise of one questionnaire and two proficiency tests.

The questionnaire is designed to elicit the students' evaluation on ALI in contrast to the traditional listening instruction. Five aspects about the teaching methodologies are offered for evaluation. The score for each item ranges from 1 to 10, with 10 the highest score for favorable evaluation. The first item is designed to check which instruction (ALI or the traditional listening instruction) offers more intensified practice. The second question measures which instruction stimulates more of the students' learning interest. The third entry determines students' feeling towards the physical environment for learning and teaching. The purpose of the fourth is to testify which instruction focuses more on the key points of the listening materials and the difficult points for the students. It is to check whether ALI is helpful to solve the students' individual problems. The last item is to obtain students' overall impression of ALI and the traditional listening instruction.

Besides the questionnaire, the instruments also include one pretest and one posttest. With the purpose of maintaining the internal validity of the experiment, both of the tests are derived from the listening part of the national College English Test Band 4 (CET4). It is a standardized nation-wide proficiency test for non-English majors. Thus the pretest and posttest are almost at the same level of difficulty and in the same pattern. The total score of the listening test is twenty points.

##### 4.4 Data Collection and Analysis

The research is carried out after the subjects have finished one term of traditional listening instruction in the university. At the beginning of the second term, the pretest is given to both of the experimental and control groups. During the second term, the experimental group is instructed by way of ALI while the control group maintains the traditional teaching methodology. At the end of the term, the posttest is given to both groups, and the experimental group is also required to complete the questionnaire, because they have experienced two different listening instruction models in the university: the traditional listening instruction and ALI. Four students are absent from class so 58 students from the experimental group complete the questionnaire.

###### 4.4.1 Pretests Comparison between the Two Groups

An Independent Samples T-test is applied to the pretests to see whether the control group and the

experimental group are at the same level when the experiment starts. The results are shown in Table 1 and Table 2.

Table 1. Descriptive statistics of the pretest

Group	N	Mean	Std. Deviation	Std. Error Mean
scorpre 1	62	8.984	2.6208	.3328
2	68	8.618	2.3942	.2903

Table 2. Independent samples Ttest for pretest

	Levene's Test for Equality of Variances		t test for Equality of Means							
	F	Sig.	t	df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	95 % Confidence Interval of the Difference		
								Lower	Upper	
Scorpre	Equal variances assumed	.338	.562	.823	128	.407	.3662	.4398	-.5041	1.2365
	Equal variances no assumed			.829	123.859	.409	.3662	.4417	-.5080	1.2404

Table 1 gives the results of the descriptive analysis of the pretest. It demonstrates that the mean value of the test scores of the control group (8.618) is not much different from that of the experimental group (8.984). From Table 2 it can be seen that  $T = .833$ ,  $p = .407$  ( $P > 0.05$ ), showing no significant difference between the two pretest means. This indicates that at the beginning of the experiment, the listening proficiency of the two classes is almost at the same level.

#### 4.4.2 Posttests Comparison between the Two Groups

Another Independent Samples Ttest is made to compare the posttests of the control group and the experimental group. The results are shown in Table 3 and Table 4.

Table 3. Descriptive statistics of the posttest

Tmethod	N	Mean	Std. Deviation	Std. Error Mean
scorpre 1	62	11.9839	2.74305	.34837
2	68	9.7059	2.38815	.28961

Table 4. Independent Samples Ttest for posttest

	Levene's Test for Equality of Variances		t test for Equality of Means							
	F	Sig.	t	df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	95 % Confidence Interval of the Difference		
								Lower	Upper	
Scorpre	Equal variances assumed	1.013	.316	5.061	128	.000	2.27799	.45013	1.38732	3.16865
	Equal variances no assumed			5.028	121.580	.000	2.27799	.45302	1.38115	3.17483

Table 3 demonstrates the results of the descriptive analysis of the posttests . Table 4 presents the Independent Samples T test for the posttests . It can be seen that the average listening comprehension score of the experimental group (11 .9839 )is much higher than the score of the control group (9 .7059 ) .  $T = 5 .061$  ,  $p = .000$  (  $< 0 .05$  ) . We can say that the results are statistically significant at the .05 level . We can reject the null hypothesis of no difference . Significant difference is found between the two means .

The results of the pretest and the posttest show that although at the beginning of the research ,both of the control group and the experimental group are at the same level in listening proficiency ,after the research significant difference is found between the two groups .

#### 4 .4 .3 Statistical Analysis of the Questionnaire

The data obtained from the questionnaire are analyzed by means of SPSS 13 .0 to testify the first hypothesis :ALI is subjectively accepted by the students . The result is shown in Table 5 . An Independent - Samples T test is executed .

Table 5 . Comparison of Experimental Group s Evaluation on ALI & Traditional Listening Instruction (10 points for each item )

Evaluation Items	Teaching Methodology	Number of Students	Mean	Std . Deviation	T	Sig . (2 tailed)
Intensiveness of practice	ALI	58	7 .90	1 .252	4 .110	.000
	Traditional	58	6 .83	1 .535		
Learning Interest Stimulation	ALI	58	7 .88	1 .452	4 .027	.000
	Traditional	58	6 .78	1 .499		
Advanced Teaching Technique	ALI	58	7 .94	1 .291	2 .068	.041
	Traditional	58	7 .41	1 .485		
Prominent Key points & Difficult points	ALI	58	8 .41	1 .257	6 .062	.000
	Traditional	58	6 .93	1 .375		
Listening Comprehension Improvement	ALI	58	8 .07	1 .106	4 .177	.000
	Traditional	58	6 .85	1 .383		

As it is shown in Table 5 ,the absolute T values are 4 .110 ,4 .027 ,2 .068 ,6 .062 and 4 .177 respectively ,and p [ Sig . (2 tailed )] values are all very low (  $p < 0 .05$  ) . The results are statistically significant at the .05 level . That indicates the means are significantly different . Since the means of the scores for ALI are all significantly higher than those for the traditional teaching methodology ,it suggests that the students welcome ALI . The students positive attitude towards the teaching model partially reduces their affective filter in class . A friendly attitude facilitates their learning .

The Standard Deviations of ALI (1 .252 ,1 .452 ,1 .291 ,1 .106 ,and 1 .257 ) are all lower than those of the traditional instruction methodology (1 .535 ,1 .499 ,1 .485 ,1 .375 ,and 1 .383 ) . This proves that the students have more concentrated opinions about ALI than about the traditional methodology .

## 5 . Discussion and Conclusion

Why is ALI more effective than the traditional listening instruction in the EFL context and why is it welcome by the students ?

In the ESL context ,English learners are virtually immersed in authentic spoken English and are consciously or subconsciously adjusted to it in daily life . Thus in the ESL context ,top down strategy training in class will be reinforced by the constant extracurricular exposure to the authentic English . The task of sound discrimination practice could be successfully done in daily life . Nevertheless ,English learners in the EFL context have little opportunity to be exposed to authentic spoken English ,which

entails intensive practice on bottom up processing in class to help the learners become accustomed to the high speed of delivery in authentic English. ALI encourages bottom up processing as it does not stop at grasping the main idea and essential information but it gives students most of the time in class to do accurate hearing and comprehension of the components of language (sounds, words and intonation).

ALI is welcome by the students since it attempts to alleviate the psychological anxiety of the students by giving them clear task assignment and offering individual and timely assistance. It tries to reduce students listening anxiety by guaranteeing them the possibility to replay any part of the listening materials whenever it is necessary. As the assistance to the students is individual, the low proficiency students do not have to worry about face losing in front of their classmates when they fail to answer some questions. High proficiency students do not have to be agitated by the repeated replay of the material that they have understood at the first listening.

On the whole, ALI proves to be more effective than the traditional listening instruction in the EFL context.

## 6. Suggestions for Further Research

The present study has answered some questions, but it has also raised some questions. Here are some suggestions for further research.

A good computer system is the basic mechanical support for ALI instruction. So far none of the systems available to the authors is perfect for ALI instruction. More or less defects are found in each system. In the future study, a more ideal computer cluster for ALI could be developed, which should be equipped with a monitoring system and an individual communicating system between the students and their instructor. The "cut into" function mentioned in the previous section is also a must. "Call" buttons should be stored to the students desks.

The present research studies the effectiveness of ALI in contrast to the traditional listening instruction. Further studies could focus on the contrastive study of ALI and top down strategy training or ALI and meta-cognitive strategy training.

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