

Practice and Research of Improving English Listening Skills Based on Cognitive Theory

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Abstract: With several years experience of listening English teaching, the writer finds out that the teaching effect is affected greatly by the students' education background and the choosing of listening materials. In order to maximize the training effect, the writer first analyzes the factors which affect the English listening teaching effects and then put forwards a teaching method basing on the Cognitive Theory. To prove the efficiency of the new teaching method, the writer divides the students into three groups, who get tested and do questionnaires during a four-week training. The training involves application of recognition psychology and the choosing of authentic video materials. The data of the tests and questionnaires are shown in several Tables and analyzed to prove the efficiency of the new teaching method.

1. Introduction

Basing on more than ten years' teaching experience, the writer found several factors affecting the degree of participation by observing students' performances.

1) The degree of participation in listening training class was decided by their original English listening level. Higher level students could follow the rhythm of the audio material better, but the lower students almost couldn't catch the sentences of the text and participate in the training. That meant accumulated knowledge in memory was most important factor affect the performance.

2) Most of students' performance was not stable. If the topic of the material was familiar, they could participate more. That meant the material itself affect the performance.

3) When the students fully concentrated on ears, close eyes, they could capture the content more. It indicated that concentration was an element affect the performance.

4) Some students could capture several sentences and words and had no idea of the gist of the material. Their brain couldn't control the ears to keep the same rhythm with the audio material. They don't know how to listen. There is no effect of the class training for them.

To maximize the effect of the class training for helping all the students improve their listening skills, basing on the result of the analysis above, the writer found a research direction that is how to apply and choose the listening materials and how to listen. It can be explained that traditional audio listening materials will be replaced by authentic video materials. The purpose of class training is try to teach students a new way of self-training in listening which is by using eyes, ears, mouth and brain simultaneously to focus on listening.

2. Application of the Cognitive Theory

2.1. Recognition Psychology

Recognition Psychology became an important division of psychology in 70th in western society. It researches the procedure of human recognition psychology which is a main part of the human advanced psychology, such as attention, perception, representation, memory, thinking and language, etc. [1] The relationship between them is that they work together and depend on each other. Its results of research have been wildly used in education field. The core conception is that the human recognition procedure is a procedure of information processing. The most primary point of view is that “human brain is similar as the information processing of computer system.” [2] It is that the information processing system of human brain is composed by four parts. There are receptor, effector, memory and processor. First, the external circumstances put information into perception system which is reception; second, the processor processes the transformed information, rebuilds, recognizes and compares them, then stores them into memory system; third, the effector responses to the external circumstances. This theory is guiding my research of improving students’ listening skills for gist by using authentic video materials in English listening class.

2.2. To choose authentic video materials as listening material

To choose authentic video material as listening material which can stimulate both ears and eyes simultaneously. This kind of material can present the language and its corresponding images to the students at the same time. [3] Both images and language are from native speakers. When the students are watching video materials, students’ ears and eyes are receptors, two receptors are working at the same time. In a traditional English listening class, when the students are listening the audio material, only one receptor—ears are working. Obviously, the former receives more information than the latter. The students in former approach participate the listening training more actively and their attention are more focused.

Authentic video materials have two advantages.

1) Language combines with picture. The picture can visual display the content related to the gist of the language in direct way. The picture can arouse the memory experience which stored in student’s brain and warm up their schema to help them understanding the text.

2) Language combines with situation. The video expresses the proper way of language using in different situations. It is better than teacher’s explanation in words. It is more helpful to students to know the language.

2.3. The approach of training

1) The first step of training is to require students to ignore the meaning of the sentences when they are watching the video materials. At this stage, the key point is to let the brain, mouth, ear and eye work together simultaneously. When the students are watching the video materials, their eyes are working: the eyes receive images from the materials; their ears are working too: the ears receive the sound of the language from the materials; their mouths are required to read out what they hear immediately: the mouths are working with the ears simultaneously. The function of their brains is not to remember and understand the sentences, it is changed to control their ears, eyes and mouths working together simultaneously. The processor—brain is highly running, it’s a controller; the receptor—ears and eyes are receiving the information which will be double, this information will stimulate the brain twice; the effector—mouth is reacting automatically, it’s the third of brain stimulation. Meanwhile, the brain is a storage. In this new training approach, the brain is stimulated

three times by ears, eyes and mouth. It stores the information from the video materials three times.

2) The second step is to require students to keep the synchronous with the rhythm of the listening materials. At this stage, students can be trained with the help of the subtitles on the screen. The key point of this stage is to keep the same speed with the video materials. Students should read out the sentences with the same speed of the sound from the video materials. Video materials provide sound and subtitles at the same time. The brain controls the speed of the reading and hearing with the help of watching.

3) In the first and second stage, each student fully takes part in the training no matter his English listening level is higher or lower. In this way, students are offered maximized training, and then students are able to enter into the last stage. At this stage, students are required to understand the content of the video materials.

3. Project Implementation

Drawing on the discovery of the problem analysis and rationale quoted above, a project is designed to improve the students' skill of listening for gist by using authentic video material and applying eyes, ears, mouth and brain simultaneously to focus on listening.

3.1. Research tools

Five data collection instruments will be used in the research: pre-test, post-test and three questionnaire forms.

Each student of my class will be pre-tested and do pre-questionnaire before the implementation of the project while be post-tested and do post-questionnaire at the end of the project. The post-test and post-questionnaire should be similar to the pre-test and pre-questionnaire so that the results of the two tests will be comparable.

3.2. Grouping

To improve the training effect and try to find out which training activity was the most effective one for different students, the students were divided into three groups based on their performance of participation in listening activities and testing scores. Group A: participation degree over 70% (score>70); group B: participation degree between 70% and 40% (70>score>40); group C: participation degree under 40% (score<40).

1) Group A: their original English listening level was higher than average.

2) Group B:

a. If the topic of the material was familiar, they could participate more.

b. When they closed eyes, fully concentrated on ears, they could capture the content more.

3) Group C: they could capture several sentences and word and had no idea of the gist of the material. The brain couldn't control the ears to keep the same rhythm with the material. They didn't know how to listen. There was no effect of the class training.

3.3. Three activities for measuring the degree of students' participation

The training course was once a week on Saturday. Only 45 minutes could be arranged for listening training in class each week. Three activities were designed for aiming at three different stages of training to implement the training.

Activity 1: reading what you heard from the video materials and noting down the percentage of

how much you can follow up.

Activity 2: reading and counting the sentences of the video materials with the help of the subtitles on the screen and noting down the percentage of how many sentences can you count right.

Activity 3: understanding the text by listening and noting down the percentage of how much content you can understand.

3.4. General introduction to the teaching plan

The video materials are chosen as training material to improve the students' listening skills for gist. The training way is to require students to initiate ears, eyes, mouth and brain simultaneously and read out what they heard. The topics are "London is Bidding for Olympics 2012", "Yao Ming Sued Coca-Cola", "Britain vs EU" and "Challenging CEOs" from the book "CNN ENGLISH VIDEO & AUDIO", third episode, published by Beijing North Film Audio Video Company. There are two versions of this book. One is VCD version. Its audio and video are authentic. This version is chosen as a training material. It has subtitles on the screen. The other version is CD with a standard speed audio which is chosen for test.

1) Pre—stage: the video is displayed by using the projector to activate students' schema. The picture will attract the attention of the students as much as possible when they first touch the material. The picture itself expresses something without the sound.

2) While—stage: the video is played 4 times to fulfill 4 tasks.

a. The first time: the students are required to read the English subtitles on the screen follow the sound of the video material from the sound channel and ignore the meaning.

b. The second time: the students are required to count the sentences while they are reading follow the ears.

c. The third time: the students are required to close eyes and read the material follow the sound of the video. Try to think of the gist of the text. Then, let them discuss in pair.

d. The fourth time: the students are required to listen to the audio version and Table out the gist of the text.

3) Post—stage: several students are required to retell the story without the video in front of the class. The teacher provides the comments.

3.5. Questionnaire forms

The first step of training was to require students to ignore the meaning of the sentences when they were watching the video materials. At this stage, the key point was to let the brain, mouth, ears and eyes work together simultaneously. The students were asked to read out what they heard. The first question was: How much can you follow up?

The second step was to require students to keep the synchronous with the rhythm of the listening materials. At this stage, students could be trained with the help of the subtitles on the screen. The key point of this stage was to keep the same speed with the video materials. Students should read out the sentences with the same speed of the sound from the video materials. The students were asked to count the sentences while they were reading. The question was: How many sentences can you count?

In the first and second stage, each student fully took part in the training no matter his English listening level was higher or lower. In this way, students were offered maximized training, and then students were able to enter into the last stage. At this stage, students were required to understand the content of the video materials. The question was: How many contents can you understand?

4. Findings and Discussion

In this project, there were three groups. Group A had 5 students; group B had 17 students; group C had 10 students. The result of experiment data indicated that with the improvement of participation, students' academic performance would also improve. The new training method had the most affection on medium level students and each group had different improvements.

4.1. Comparing two test scores of three groups

Before the experiment, the first listening test was made and the average score of each group and overall average score of test one were calculated. After three weeks' training, the second test was made and the other average score of each group and overall average score of test two were calculated. The result of test score indicated that each group had different improvements and the new training method had the most affection on medium level students.

Table 1: Improvement Result

	Test one	Test two	Improvement
Group A	76.6	80.4	3.8
Group B	54.8	60.4	5.6
Group C	26.1	29	2.9
Overall average score	49.2	53.7	4.5

From Table 1, the writer found out that the improvement of Group B was more than Group A and Group C. The score of test one was decided by their original English listening level. The score of test two was impacted by the experiment. The improvement of overall average score was 4.5, the improvement of Group B was 5.6, there was 1.1 higher. The result of Table 1 showed that new training method had the most affection on medium level students.

4.2. Comparing three questionnaire forms of three groups

Three activities are designed for measuring the degree of students' participation:

Activity 1: reading what you heard from the video material and noting down the percentage of how much you can follow up.

Activity 2: counting the sentences of the video material and noting down the percentage of how many sentences can you count right.

Activity 3: understanding the text by listening and noting down the percentage of how many contents you can understand.

The questionnaire Table 2 was about activity 1 which was started on week one. At the end of the class, the activity was run again, so Table 2 contains three pairs of data from three weeks. Table 3 was about activity 2 which was started on week two. The way of data collection was as same as week one, so it contains two pairs of data from two weeks. Table 4 was about activity 3 which was implemented on week three. Table 4 had one pair of data from one week.

Table 2: Questionnaire on Week One

	Week one		Week two		Week three		Improvement	
Group A	72%	93%	82%	99%	99%	100%	26%	7%
Group B	57.1%	72.6%	73.5%	88.8%	82.9%	94.1%	25.9%	21.8%
Group C	25%	45.5%	35%	54.5%	50.5%	62%	25.5%	16.5%

In Table 2, the data showed that the students from three groups almost had the same progress at the beginning of the class after three weeks training. Activity 1 was not limited by the original

English listening level. In this activity, each student fully takes part in the training. In this way, students are offered maximized training.

The purpose of activity 2 was to treat the students' common problem: They couldn't catch up the rhythm of listening material so that missed the content by only using ear to listen the audio material. Prompted by the subtitles of the screen and the meaning of the picture, students would keep the same rhythm with the video material as much as possible. The data of Table 3 showed that three groups almost had the same progress at the end of the class after three weeks training. Activity 2 was not limited by the original English listening level. The date of group B was a little higher than group A and B. it showed that this training method had the most affection on medium level students.

Table 3: Questionnaire on Week Two

	Week two		Week three		Improvement	
Group A	74%	86%	84%	94%	10%	10%
Group B	64.1%	73.5%	72.4%	84.7%	8.2%	11.2%
Group C	12 %	17%	17%	27%	5%	10%

Based on former two activities, activity 3 was designed to help students to improve their listening skills. The video material could display the content related to the gist of the language in direct way. The picture could arouse the memory experience stored in student's brain and warm up their schema to help them understand the text. The data of Table 4 showed that video material was helpful in improving students' listening skills for gist. This training method had the most affection on medium level students and was also limited by students' original English level.

Table 4: Questionnaire on Week Three

	Week three		Improvement
Group A	82 %	95%	13%
Group B	63.2%	81.2%	18%
Group C	30.5 %	40%	9.5%

4.3. Comparing the improvements of second test score and the result of activity 3

Table 5 shows that with the improvement of participation, students' academic performance would also improve. The date analysis is presented clearly in Figure 1 which shows the improvement is proportionate to the participation. The new training method had the most affection on medium level students and each group had different improvements.

Table 5: Improvement of Participation

	Test score	Activity 3
Group A	3.8	13%
Group B	5.6	18%
Group C	2.9	9.5%

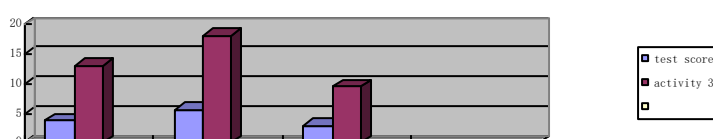


Figure 1: Improvement of Participation

5. Conclusion

Being an English trainer of company training center for several years, according to my teaching experiences, I found that students were hard to involve the English listening skills training actively. The common problem was that when they were thinking of the meaning of what they had heard, several words or sentences were missed, and the more were lost, and the less could be understood. The training effect was not efficient. To maximize the effect of the class training for helping all the students improve their listening skills, based on the core conception of Recognition psychology, I implemented an experiment for four weeks. In my project, there were two receptors: eyes and ears; one effector: mouth; the brain was a storage and a controller. [4] By using authentic video material to replace the audio material and applying eyes, ears, mouth and brain worked together simultaneously to focus on listening as a new training method, the average of students' test score improved. I designed three activities to train students' participation performance and measured the degree of their participation by using questionnaire forms, then collected the data. I divided students into three groups based on their test score, collected data by testing. After analyzing these data, I found out that with the improvement of participation, students' academic performance would also improve. Each student of my class had different progress. This training method had the most affection on group B which was the medium level students and was also limited by students' original English level. The limitation of this experiment was that the target group had some disadvantages. Students were not on the same English level. The age disparity was another element to cause the different reaction speed of the training activities. These facts might affect the accuracy of experiment data. The future study will focus on full-time students to get accuracy data to improve the training skills.

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