

The Role of Multimodal in Chinese EFL Students' Autonomous Listening Comprehension & Multiliteracies

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Abstract—This research, taking 102 Chinese sophomores as participants, examined the role of multimodal in EFL students' autonomous listening comprehension and multiliteracies. Materials consisted of a questionnaire concerning autonomous learning of listening comprehension and listening proficiency tests (a pretest and a posttest) so as to find participants' attitude towards the new autonomous listening model and the effectiveness of the model. Results indicated that the new model proved to be popular with most of the participants, able to effectively improve students' autonomous learning ability and significantly improve their listening comprehension and multiliteracies. Suggestions and implications for the results were discussed.

Index Terms—EFL reading comprehension, multimodal, autonomous listening comprehension, multiliteracies

I. INTRODUCTION

Within China researches on autonomous learning started in the 1980s, while the application of discourse analysis with multimodal in EFL teaching began in recent years. And the effect of input modal on language learning has attracted researchers' sufficient attention with the focus on the effect of different input modals on EFL comprehension and incidental vocabulary acquisition (Gu & Zang, 2011). Nevertheless, there have been few empirical studies with respect to EFL listening teaching via the combination of multi-modal and autonomous learning theory. Hence this research aims to compare the traditional teaching mode with pure videos with the multi-modal one to find the students' attitude towards the new model and the differences between the two modes or the effect of multimodal on Chinese EFL students' autonomous listening comprehension and multiliteracies.

II. THEORETICAL BASIS

Discourse analysis proposed by Harris analyzes the internal regularities of discourse activities and the relationships between them and cognitive modes., while multimodal discourse analysis is not limited to the written text but extended to other forms of expressions such as pictures, sounds, colors and cartoons (Harris, 1952, quoted in Zhu, 2007), which has become the focus of researches both within and outside China.

A. *Multimodal and Multimedia*

Halliday (1985) believed that in the particular social context, people always made the most out of semiotic resources to achieve the creation of meaning and accordingly various semiotic resources constituted multimodality (quoted in Kress & van Leeuwen, 2001, p. 80). LeVine & Scollon (2004) deemed that multimodal referred to the various modals which were used in communication, including speech, color, taste and pictures (p. 3-5). Other scholars suggested that multimodal referred to the interaction via more than two organs (Hu, 2007; Gu, 2007; Zhang, 2009; Zhu, 2008).

Media and modal are the two keywords in the multimodal discourse analysis. The former is the medium through which information communication is achieved among people, or the carrier of information, and the medium which involves more than two carriers is called multimedia (Gu, 2007). Hence multimedia is closely associated with multimodal. On the one hand, the development of multimedia technology has promoted the appearance of new form of discourse. On the other hand, multimodal discourse analysis has to turn to multimedia means for help, e.g. the transcription and analysis of sound, the interception and decomposition of dynamic image pictures and the creation of corpus, etc. Accordingly the development of multimodal discourse analysis will promote the combination of multimodal and multimedia (Xin, 2008). Hence autonomous listening model via multimodal in EFL teaching has to be supported by the multimedia technology and equipment.

B. *Multimodal and Multiliteracies*

In the 1990s, the new London Group composed of eleven linguists firstly proposed the concept of multiliteracy. They believed that with the rapid development of information technology, people had to have contact with various information of medium transmission on a daily basis, such as print, pictures and videotapes and communicate with culture groups with different backgrounds. Therefore there is need to develop students' multiliteracies in EFL teaching.

Multiliteracy is composed of five elements: (1) linguistic components, e.g. vocabulary, metaphor, structure and mood; (2) visual components, e.g. color, perspective, vector, prospect and background, etc; (3) auditory components, e.g. voice, music and video effects, etc.; (4) posture components, e.g. behavior, feeling, physical control, emotion and movement, etc.; (5) space components, e.g. ecological space, geometry space and building space, etc. (Gentle, Knight & Corrigan, quoted in Zhu, 2008).

It proves to be one of the effective methods to introduce multimodal teaching, connect multiliteracy with modal and media transition so as to develop learners' multiliteracies, achieve the interaction between the five sense organs so that learners will better adapt themselves to the multi-lives in the future (Wei, 2009).

Helgesen (2003), Rost (2002) and Richards & Schmidt (2002) all defined listening as an active process of meaning creation. In other words, The listener does not simply decode what he has heard, but also actively obtains information from what he has seen or heard and connects it with his known knowledge (Rubin, 1995). Accordingly listening teaching is the first phase of multimodal teaching and also the key stage via which multiliteracy competence is achieved. Scholars proposed some valuable suggestions for it. Kress et al. (2001, p. 42) proposed that in the EFL classroom the behavior, visual and linguistic semiotic resources introduced by teachers and students ought to be made full use of and the interaction between the resources should be promoted in order to achieve the creation and literacy of complete meanings. Healy suggested four stages for classroom teaching, namely *situated practice*, *overt instruction*, *critical framing* and *transformed practice* (quoted in Hu, 2007). Led by teachers, learners might experience, analyze and use the multimodal texts, and become subjects of the classroom teaching so as to improve their overall EFL competence.

The fact is that according to the traditional listening teaching model, learners obtain information via auditory sense or single modal, without modal transition from auditory sense to comprehension. Hence it means a modal transition to introduce oral introduction about background before listening, videos during listening and oral repetition or classroom discussion after listening. In other words, the auditory modal of input is transformed into movement and writing modal of visual nerve, vocal organ and body movement (Zhang, 2009). The transformation of modal might strengthen the internalization of the knowledge that learners have learnt and transform more input into in-take (Long & Zhao, 2009).

C. *EFL Autonomous Learning Ability*

Autonomous learning as a scientific and educational concept was born in the 1960s and has been widely accepted and advocated in the teaching field both within and outside China, and even regarded as the ultimate goal of EFL/ESL education. It is of multiple-dimension and complicated, not only a kind of competence but also an attitude, consisting of learners' autonomous choice and control of learning in an all-around way and their own planning, management, monitoring and regulation (Zhu & Deng, 2011). Shu & Zhuang (2008, p. 85-87) believed that the concept of autonomous learning was not only composed of attitude and competence, but also the environments. In other words, learners might offer themselves various opportunities and situations to practice and improve their own learning ability. Yu deemed that only when learners controlled their learning process, create their learning goal of their own accord in communication with others in authentic context, actively explore and discover, could they ultimately achieve the learning goal (quoted in Zhu & Deng, 2011).

This research tried to introduce multimodal-based autonomous listening model into Chinese English majors' listening course. About 20 minutes were spared for students' to discuss of their own will, determine what to listen to and present, how to practice, etc.

III. METHODOLOGY

A. *Questions*

There are three questions to be answered: (1) Is multimodal-based autonomous listening teaching popular with all the participants? (2) Can multimodal-based autonomous listening teaching improve learners' autonomous learning ability? (3) Can multimodal-based autonomous listening teaching improve learners' listening proficiency and multiliteracies?

B. *Participants*

The participants were 102 sophomores of non-English majors from Hubei Engineering University and divided into experiment group (51) and controlled group (51). For the experiment group, the researcher adopted the multimodal-based autonomous listening teaching mode and for the controlled one, the traditional teaching mode with pure audios. Before the experiment both of the groups took a listening proficiency test and result indicated no significant differences between them ($P > .05$). The experiment lasted about two semesters (from March, 2013 to January, 2014).

C. *Materials*

One of the instruments was questionnaire which consisted of two parts. One was about learners' attitude towards the multimodal-based autonomous EFL listening teaching, their motivation, how much time they had spent on it, method, the effectiveness of the method, their apperception and suggestions concerning the teaching mode. The other was about the advantages and disadvantages of the multimodal-based autonomous EFL listening teaching, the difficulties of the mode, learners' preference of listening materials, their views and suggestions about the teaching mode. The coefficient

of internal consistency for the questionnaire was 0.87

Other instruments were the pretest and posttest for listening proficiency. The former was designed by two teachers who taught the same grade, the latter were chosen from the previous year's CET4. Reliability coefficients for the tests were respectively 0.89 and 0.90.

All the data collected were analyzed via SPSS19.0.

D. Procedures

Before the experiment began, questionnaires were distributed to 102 participants.

The experiment group had classes in the multimedia classroom. Learners were divided into several groups and chose what they would listen and practice of their own accord. During each period, two groups presented and interacted with each other before the whole class. Three phases (before-listening, in-listening and after-listening) were designed according to Underwood (quoted in Helgesen & Brown, 2008).

Firstly, before-listening. The whole class was divided into ten groups with two groups for each presentation. Students chose topics of their own will, which covered politics, economics, culture, social hotspot and anecdotes. Autonomous creative design included role division within the group, components of items-dictation, repetition, translation, summarizing the main idea, discussion about the topic, etc. The presentation way included the length of time and the times it might need for video playing, and the order of procedures, etc. Videos might be also chosen of their own will according to the topic and the interest of the group. In addition, in order to activate participants' participation and active atmosphere, some groups would prepare some novel presents as rewards and add games such as word guessing and discrimination when listening to a song so that the listening course would become the effective classroom where multimodal-based teaching was practiced. Before class the teacher would also offer valuable directions and suggestions and assist students to choose topics so as to optimize the presentation effect of the multimodal-based classroom activities.

Secondly, in-listening. In the classroom the groups who had been well prepared would present themselves one by one. The whole class listened to the video material chosen by the group and each group played videos according to their own division and design, which might activate students' auditory, visual and tactual senses to obtain the relevant information. After each video playing, there would be some questions related to the video for students' to answer. With the increase of video playing (usually 2-4 times), there would be more exercises, such as filling in the words, repeating sentences and translating the videos into Chinese, etc., or the items with some difficulties. Some groups would choose one of the classical fragments in the video and listen to it repeatedly.

Thirdly, after-listening. When the video playing ended, there were usually extended discussions relevant to the video so as to timely process the information input, transform it into information output, enhance the impression and do the exercises that might extend students' way of thinking. This process made it possible for the information which had been input to be internalized as learners' own knowledge and taken as their own knowledge system via the interaction and communication through various senses.

When each group had finished its item presentation, other learners marked the two groups as judges did and put forward their suggestions. The teacher, as a participant, offered appropriate comments, correction and the suggestions for the future groups. This multimodal-based autonomous listening teaching model changed the previous situation in which teacher chose listening materials and learners passively accepted so that the learners became real subjects in the classroom, which at a degree avoided the traditional monotonous teaching model, learners' lack of activeness, absence of mind and indigestion of what they had taken in, etc., activated learners' activeness, creation, imagination and team spirit and greatly increased their participation.

When the experiment ended, questionnaires were redistributed to the participants from the experiment group.

IV. RESULTS AND DISCUSSION

A. Pretest

Of the 102 questionnaires, 80 were returned and valid. Results indicated that most of the participants preferred videos because of their being interesting and practical (80% learners used videos for autonomous learning and 20% used audios), yet in actual teaching there were still some problems to be solved. Firstly, there was no sufficient time for autonomous learning via videos, merely about half an hour a day for most learners (half an hour for 73.6%, an hour for 26.3%). Secondly, there was something wrong with learners' method. The pictures and movement of the videos would divert part of learners' attention (Only 23.8% learners took notes when watching the videos and were able to write down the important expressions). The above two resulted in the fact that learners' were willing to use videos for listening materials but deemed that there was no significant difference between videos and audios (50.7% thought videos were more effective and 49.7 believed audios to be more effective).

Questionnaires indicated that although learners preferred to use the videos with various forms and contents, there were no significant differences between the effects of videos and the traditional audios. Nevertheless, according to Gu's (2007) multimodal-based EFL learning model, transition of different modals may in turn activate learners' brains to memorize and understand better what they have heard. Compared with audios, videos ought to have more advantages, but results of questionnaires indicated that the advantages failed to be make full use of and that further exploration

was needed so as to make the most out of videos. In addition, learners were supposed to be directed and learn to know how to use videos for autonomous listening. Hence the researcher designed an experiment which lasted two semesters so as to exploit the advantages and maximize them.

B. Post-test

1. Question one: Is multimodal-based autonomous listening teaching popular with all the participants?

When the teaching experiment ended, questionnaires were redistributed. All of the 51 questionnaires were returned and valid. Results indicated that the students who chose videos for listening materials significant increased and 95% of them adopted positive attitude towards the introduction of videos into the classroom and claimed to have benefited from them.

2. Question two: Can multimodal-based autonomous listening teaching improve learners' autonomous learning ability?

When learners became able to better understand the videos and skillfully use them (including designing by themselves, taking notes and discussing), the effect of videos on autonomous listening was greatly increased and learners' listening proficiency also improved (see 3.2.3). Learners' attitude towards the multimodal-based teaching mode or videos as listening materials was positive. Most of the learners thought that there were many advantages for the division of students into several groups and their presentation of multimodal-based classroom via audios and videos as well as oral discussions. 65% participants thought that such classroom changed the traditional teaching mode when students passively accepted what had taught to them and improve the effect and efficiency of listening course. 82.5% deemed that the contents of their own choice were close to college life, popular with students and easily aroused their interest. 52.5% believed that in such classroom students might exploit their own advantages, share the teaching resources and cramp out the newest materials. The above indicated that under the teacher's guidance, students became more aware of the multimodal-based listening teaching, could more effectively plan, manage and organize listening course, supervise and regulate each other so as to greatly improve their listening efficiency and effect.

3. Question three: Can multimodal-based autonomous listening teaching improve learners' listening proficiency and multiliteracies?

Question three is actually the focus of the three questions. Since learners were fond of multimodal-based autonomous listening mode and their competence was indeed improved, can the new model effectively improve students' EFL listening proficiency and multiliteracies? After two semesters' experiment, the researcher compared the experiment group and the controlled group in terms of their performance in the final listening test, as table one indicated.

TABLE ONE
MEAN SCORE FOR THE TWO GROUPS IN THE FINAL LISTENING TEST

	Semester one	Semester two
Experiment group	81.638	81.767
Controlled group	75.481	76.117

Table one revealed that the mean score for the experiment group was significantly higher than that for the controlled group ($t=-6.499$, $p=0.0000<0.05$). Paired sample t test indicated significant differences between the experiment group and the controlled group in their mean scores. Further Pearson correlation analysis ($r=0.809$, $p=0.000<0.05$) revealed that the multimodal-based autonomous listening teaching mode was positively and significantly correlated to learners' performance in the test, which indicated that this teaching mode significantly improved learners' performance in the listening test. In other words, learners' visual, audio and tactual organs interacted with each other and finally improved their multiliteracies via experiencing, analyzing and using multimodal semiotic system.

V. SUGGESTIONS

From the above discussion, it could be clearly seen that multimodal-based teaching model was positively correlated to learners' autonomous learning ability as well as listening ability. Hence the researcher would like to propose some suggestions for the future EFL listening teaching.

Firstly, in the EFL listening classroom, learners should be the subjects. During the experiment, learners revealed keen enthusiasm. They were divided into several groups, chose appropriate materials and design the exercises of their own will, which was actually part of task-based teaching, increased opportunities for learners to learn the target language and promoted the meaning negotiation and emotion communication between learners (Gonzalez-Loret, 2003). Learners' self-evaluation and scoring developed their sense of pride and subject consciousness (Fang, 2011). Teaching practice indicated every time students came to class, they would bring surprises, and the listening materials and vides they chose all involved the current hot topics, proved to be popular with themselves and able to arouse learners' interest in relevant discussion. Accordingly learners' attitude towards listening course changed from the previous boring and anxious into wishful. Learners were able to give veins to their imagination and creativity. Besides the listening exercises themselves, some groups designed the items such as word guessing and filling in the song words, etc. Some prepared various interesting gifts, which activated learners' visual, auditory and tactual organs in the pleasant atmosphere, consolidated the language and culture knowledge learners had acquired in watching the videos. In addition, after the application of

multimodal-based autonomous listening teaching, learners from the experiment group also became active in other classes such as reading and writing, as the researcher observed. They actively expressed their own ideas, and the whole class became more and more cohesive and keen in team work. Therefore only learner-centered listening course with students as subjects is able to exploit students' learning potentials and maximize the beneficial effect of EFL teaching.

Secondly, in the EFL classroom teachers should be the directors. Teacher's role should be different when autonomous teaching mode is employed (Gardner & Miller, 2007: 180). Multimodal-based autonomous teaching mode does not weaken teacher's role. In contrast, it challenges teacher's autonomous learning competence. When this mode is used, after various class activities, learners expect the evaluation from the teacher. Due to the variety of topics and materials, it is required that teachers should improve their own competence of autonomous learning, be well aware of the current hot topics, have their own views of them and offer their valuable proposals. At the same time listening comprehension itself is a complicated process which involves linguistic, cognitive, cultural and social knowledge (Wang & Miao, 2003: 2). Therefore teachers have to give students continuous and theoretical directions so that students will change the past notion that listening course simply means teacher's playing audios and learners' repetition so as to improve others linguistic skills via listening and realize the good circulation of EFL learning.

Thirdly, multimodal-based autonomous listening teaching should be different from the traditional listening and speaking course. It is in reality different from the current popular visual, auditory and speaking course. Listening course emphasizes auditory modal while visual modal and oral expression are merely auxiliary means, the three modals are transmitted from one to another, offer multi-activation to the brain cells so that the input information is internalized part of learners' knowledge. Simultaneously learners actively participate in the whole teaching process, choose topics, organize the classroom activities for a period of time of their own will and turn out to be the subjects of the classroom all the time. The visual, auditory and speaking teaching mode, however, does not change the situation in which learners passively accept what has taught to them and the three modals are equal to each other with no emphasis, which may lead to the fact that learners are quite at a loss. The most important thing is that the ultimate purpose of the multimodal-based autonomous listening teaching is not only to improve learners' listening comprehension, but also their autonomous learning ability and feel the regional differences of language and culture via the interaction between teacher and students and also the multimodal texts through visual, auditory and tactual modals. In the course of making PPT and classroom presentation, learners combine the five components such as linguistic, visual, auditory, posture and spatial ones to improve their multiliteracies.

VI. CONCLUSION

From the above analysis the following conclusion can be arrived at: (1) Multimodal-based autonomous listening teaching mode is popular with most of the participants; (2) This teaching mode can effectively improve learners' autonomous learning ability; (3) This mode does effectively improve learners' listening level and multiliteracies. There are some implications for the results. Multimodal-based autonomous listening teaching mode has its own advantages. In addition, such mode can be extended to other EFL courses such as reading and writing, help increase teaching effect as well as learners' autonomous learning ability and multiliteracies. There are also some drawbacks for such mode via videos. For example, in the two questionnaires, there were some students who claimed that pictures and plots in the videos might divert their attention or they might be attracted by the plots and neglect taking notes. In other words, the interaction between visual modal and auditory modal might be neutralized and produce negative effect, which should be the focus of future researches.

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