

THE EFFECT OF FORMAL SCHEMA ON COLLEGE ENGLISH LISTENING COMPREHENSION IN EFL¹

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Abstract: Listening comprehension used to be thought of as a passive skill, and listeners were called as “tape-recorder” (Anderson & Lynch,1988). But in fact it is an active process, in which what the listener wants to get is an adequate understanding of what the speaker said and what the speaker meant. To achieve this purpose, English listeners should utilize contextual clues, background knowledge and depend on many learning strategies. Active listeners will understand what the speakers said with relevant background knowledge and their particular purpose. In recent years, there has been a lot of progress English listening teaching in China, and studies on application of schema theory into listening comprehension have become more and more popular in both pedagogical theory and experiments. Schema is one of major factors that affect people’s listening comprehension. The present study, with second-year non-English majors as subjects, aimed to investigate the effect of formal schema on college English listening comprehension. It was found that when there is a lack of relevant formal schema, there will be a short-circuit of listening comprehension. It is also proved that activation of formal schema improves college students’ listening comprehension. Therefore, it is necessary to improve college students’ language skills and help them build up relevant formal schema as well.

Key words: formal schema, listening comprehension, college English

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PENGARUH SKEMA FORMAL TERHADAP PEMAHAMAN MENYIMAK BAHASA INGGRIS PADA KELAS BAHASA INGGRIS SEBAGAI BAHASA ASING

Abstrak: Pemahaman menyimak sebelumnya seringkali dianggap sebagai keterampilan pasif, dan para pendengarnya disebut “alat rekam” (Anderson & Lynch, 1988). Tapi, kenyataannya, menyimak adalah proses aktif, dimana apa yang diinginkan pendengar adalah pemahaman yang memadai terhadap apa yang dikatakan oleh penutur dan maksud dari penutur. Untuk mencapai tujuan ini, para penyimak bahasa Inggris harus memanfaatkan petunjuk-petunjuk kontekstual, pengetahuan latar belakang dan bergantung pada berbagai strategi belajar. Para penyimak aktif akan memahami apa yang dikatakan penutur dengan pengetahuan yang relevan dan tujuan khususnya. Akhir-akhir ini, ada banyak kemajuan dalam pengajaran menyimak di Cina, dan kajian-kajian mengenai penerapan teori skema pada pemahaman menyimak telah menjadi semakin populer baik dalam teori maupun eksperimen pedagogik. Skema adalah salah satu faktor utama yang mempengaruhi pemahaman menyimak orang-orang. Kajian ini, dengan mahasiswa non-bahasa Inggris tingkat dua sebagai subyeknya, bertujuan menyelidiki pengaruh dari skema formal terhadap pemahaman menyimak bahasa Inggris di perguruan tinggi. Ditemukan bahwa ketika ada kekurangan akan skema formal yang relevan, akan ada “hubungan arus pendek” dalam pemahaman menyimak. Terbukti juga bahwa aktivasi skema formal meningkatkan pemahaman menyimak para mahasiswa. Karena itu, penting untuk meningkatkan keterampilan-keterampilan bahasa mahasiswa dan juga membantu mereka membangun skema formal yang relevan.

Kata kunci: Skema formal, pemahaman menyimak, bahasa Inggris perguruan tinggi

Listening comprehension is an important skill in the daily verbal communication, and cultivating students' listening ability is also one of the major goals of China's college English instruction. Therefore, listening comprehension has become a focus of some researchers and an increasing number of studies have been conducted with Chinese students from various perspectives. According to the cognitive psychology, listening comprehension is not merely data

processing, but an interactive-compensatory cognitive process, in which the bottom-up and top-down comprehension mechanism work together for the listeners to work out the meaning of the materials. A significant amount of research suggest that it is the top-down information processing ability that distinguishes good listeners and poor listeners (Teng, 2006), and schema is one of major factors that affect people's listening comprehension (Li ,

2005).

Many researchers emphasize the activation of relevant schemata before listening (Zhou, 2002; Zhou, 2010; Tian, 2005; Dong, Liu, 2005; Gao, 2005). There are studies which deal with the application of schema theory into English listening teaching (Wang, 2004; Chen, 2007; Cui, 2003; Sun, 2008; Li, 2006; Hu, 2008). However, these researches mostly focus on the effect of linguistic schema and content schema on listening comprehension (Shi & Lv, 2004; Zhou, 2002), ignoring the significance and the application of the formal schema in the listening comprehension, although some scholars have noticed the effect of formal schema on listening comprehension (E, 2009). Since college students are confronted with so many different types of listening texts, such as fables, simple stories, scientific texts, newspaper articles, poetry, and so forth, it is highly necessary to explore the effect of schema on listening comprehension from the experimental point.

The schema theory is a theoretical model to explain the psychological procedure of comprehension. It was first put forward by German psychologist Kant in 1781. But, it is generally believed that the modern schema theory was proposed by German psychologist Bartlett (1932) according to Gestalt psychology, and was perfected by American artificial intelligence expert Rumelhart. Rumelhart (1980) explained schema as a group of "knowledge structure which interacts each other" or a group of "chunks which build up cognitive ability", which is stored and organized hierarchically in long-term memory. Schema theory claims that

listening comprehension is not a passive process, but a process in which listeners work positively and consistently to adjust the background knowledge in their mind to strengthen their understanding of the input information and then reconstruct it. The relevant knowledge in the listeners' mind will evoke their motivation for listening. When new information and existing background knowledge are matched and fit into the appropriate slot, the schema is believed to be activated (Markham and Latham, 1987). The familiar context will help listeners make predictions of the content, effectively understand the words, phrases and sentences and adjust the understanding. And, finally, based on the previous knowledge the new information is fully understood by the listeners and becomes part of the knowledge structure in the listeners' mind for future use.

Though there are many definitions and forms of schemata, they have something in common (Howard: 1987; Baddeley: 1997). Based on schema theory, different scholars classified it into different types. But generally, Rumelhart's classification is preferred by most of the researchers, in which he has identified three types of schema: linguistic schema, content schema and formal schema.

Linguistic schema or language schema refers to learner's prior linguistic knowledge. In other words, linguistic schema refers to the basic knowledge of language about vocabularies, grammars and sentence structures, as well as the cohesive devices, such as substitution, ellipsis, conjunction, lexical cohesion and so on. Linguistic schema is the most basic stage during the whole process of

listening. They play an important role in the understanding of the text. Any listening strategies or skills would be useless for the listeners who lack basic knowledge of language. Poor linguistic schemata make the obstacle, hindrance even short-circuit for the listeners to understand the meaning of the text quickly and correctly (Clarke, 1980; Hudson, 2006). Therefore, the more linguistic schemata listeners possess in their minds, the faster and clearer they acquire information. And obviously they will understand the text better.

Content schema refers to the background knowledge of the text. According to Carrell & Eisterhold (1983), they might include topic familiarity, culture knowledge and previous experience and so on. Language is not the simple combination of vocabularies, grammar points and sentence structures, but also the bearer of different levels of the culture. Language is not the simple combination of vocabularies, grammar points and sentence structures, but also the bearer of different levels of the culture. A text on a familiar topic with background knowledge is better recalled by EFL students than an unfamiliar topic without background knowledge. Therefore, the content schema can facilitate the listeners' comprehension of a text, enabling them to make prediction, choose information and remove misunderstandings. So, lacking content schema is supposedly a major factor which causes listening difficulty.

Formal schema refers to "background knowledge of the formal, rhetorical organizational structures of different types of texts" (Carrell, 1983). In other words, "formal schemata are

background knowledge about differences among rhetorical structures, such as differences in genre, differences in the structure of fables, simple stories, scientific texts, newspaper articles, poetry, and so forth" (Carrell and Eisterhold, 1988). Each type of text has its own conventional structure and semantic peculiarity. In the process of discourse comprehension, listeners or readers may always encounter different genres with different characteristics (narration, description, problem-solution pattern, general-specific pattern, etc.).

However, until now, too many researches have been focused on the effect of linguistic schema and content schema on listening comprehension, ignoring the significance and the application of the formal schema in the listening comprehension. Since college students are confronted with so many different types of listening texts, such as fables, simple stories, scientific texts, newspaper articles, poetry. Therefore, the present study tries to explore, from the experimental point, whether lack of formal schema will lead to their various degrees of "non-comprehension" (Carrell and Eisterhold, 1988), and whether it can accelerate the entire process of listening comprehension if the relevant schema can be built up. Thus, it is necessary to study the role of formal schema in discourse comprehension.

METHOD

The study mainly tries to explore whether formal schema will exert a positive influence on listening comprehension or not. Specifically, the present study tries to reveal whether Chinese college students possess the relevant and appropriate formal schema

of narration and argumentation, whether the lack of the relevant and appropriate formal schema makes obstacles or non-comprehension for the listeners in their listening comprehension, and whether the activation of relevant formal schema improves college students' listening comprehension. The present study was conducted with two classes as subjects, which had been randomly selected from 48 classes. All together 90 students from the Beijing Institute of Petrochemical Technology participated in the study, all of whom are non-English major Chinese native speakers and the second-year students from B level classes². The two classes were randomly assigned as Class A with 42 students and Class B with 48 students serve as experimental class and control class in turn. The two classes of students shared the same instructor. Neither had received any instruction in schema theory. There was no significant difference between the overall performance in listening in the final term examination. This can ensure the validity of the experiment.

Three experimental instruments were employed in the present study to obtain relevant data, namely, listening comprehension test, questionnaire and informal discussion about the formal schema. Firstly, there was a listening comprehension test, which consists of ten questions and goes in the formal way. Then, a questionnaire was administrated in order to find out the subjects' knowledge of formal schema and

problems in their listening. The questionnaire contains four questions, concerning whether the textual knowledge can help them understand the passage, obtain enough information and get them concentrated or not. Besides, there is one open question, which requires students to explain whether the teaching intervention made any difference on their understanding of the passages. Finally, after the test, four students respectively coming from Class A and Class B were randomly selected to join in an informal discussion, where they had a further study about the effect of formal schema on the listening comprehension.

To ensure the validity of testing, the present study adopted the used test papers of CET4 in China, which is a national English test to assess the language ability of non-English majors in colleges and universities. In this study, the listening tests from two test papers were chosen (the December version in 2007 and the June version in 2009). The tests were composed of three expositions, varying from children adoption, health insurance to bird feeding and two argumentations, differing in the structures and one biography, whose formal schema may be unfamiliar to students. The listening tests were divided into two parts, the December version in 2007 as Part A, and the June version in 2009 as Part B. During the experiment, the two classes were required to take both listening tests, one with invention in schema knowledge and the other with no activation of schema knowledge concerned.

To avoid any possible unfavorable interference and influence, the experiment was carried out in their

² The freshmen of this institute were required to take a placement test right after their registration. They were then assigned to three levels of classes, A, B or C according to their performance in the test. Students in Class B were normal students with the needed basis for college English study, while students in Class C have to receive remedial instruction to make up for the lack of knowledge and skill.

normal class with the subjects' own instructor as the administrator. Due to the specialty of listening comprehension test, the subjects' usual language lab can be considered as the most appropriate place to carry out the listening experiment. In the language lab, each subject can put on their own earphones to listen to what is played independently, which would free the subjects of the possible disturbance of the noise outside. In addition, the familiar environment may make the subjects behave as usual as they did in their normal English listening class. The experiment was conducted with the following steps. For Class A, firstly the students were assigned to listen to Part A and answer the questions. Secondly, the instructor guided the students to the introduction to the structures of these three passages in Part B. Finally, the students listened to Part B and to predict, according to the first few sentences they caught about the structure and the content of the passages. They were then encouraged to pay more attention on the relevant information, leaving out those irrelevant information, and then answered the ten questions. Different from Class A, students in Class B received instruction in schema knowledge when they listened to Part A, but with no invention concerning Part B. At the beginning, students were assigned to listen to Part B and answered the ten questions. Then, the instructor introduced the structure of the three passages in Part A. Students were then required to predict the content of the passages, paying more attention on the relevant information, leaving out those irrelevant information, and then answered the ten questions.

FINDINGS AND DISCUSSION

The study found that college students lack relevant formal schema, which created their obstacles to their listening comprehension. According to the questionnaire and informal discussion distributed and carried out after the test, Chinese college students lack basic textual knowledge, which results in their unawareness of knowledge of different text types and genres. To be specific, they failed to understand the structures of exposition, argumentation and biography. Students didn't know how many parts the passages about *bird feeding* and *children adoption* should include and how the passages develop. To be worse, most students were not aware of the function of the three stories mentioned in the listening passage, which were actually intended to explain why I say I need a new set of friends and beginning to get tired at Leo 's excuse. Listening comprehension is not a passive process, but a complicated psychological process of the listeners to actively select and construct the message of the text. During the process of listening, the listeners may make use of the rules of that particular genre of the text to help him better understand the material. Therefore, only by providing and activating the students' formal schema can they improve their listening proficiency.

The role of formal schema in listening

The present study suggests that building formal schema can improve students' listening competence and it may make a difference in their listening comprehension, which could be perfectly demonstrated by the results of the questionnaire. About 70% of the

participants agreed that provision of relevant formal knowledge was helpful for their understanding of the passages. 68.9% of the participants thought that provision of formal schema could help them focus themselves on the core information. And 88.8% of the participants who were given some corresponding introductions to formal schema claimed that textual knowledge could help them obtain information (*see* Figure 7).

In the present study Class A and Class B were required to complete all the listening passages in both Part A and Part B, each of which includes 3 listening passages. To explore the effect of schema activation, a contrastive study was conducted. It was found that

students from Class A and B showed a big difference in their understanding of passage two (an exposition in Part A) and passage three (a biography in Part A), while they showed no significant difference in the understanding of passage one (an exposition about children adoption in Part A), due to the fact that students are not familiar with the key words related to “adopt”. There was a significant difference in the total scores of these three passages in Part A between Class A and B (*see* Figure 1). But Part B listening tests showed no obvious difference between the two classes (*see* Figure 2), which may prove that provision formal schema did not produce the desired effects at all.

Independence Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	95% Confidence Interval of the Difference	
							Lower	Upper
Exposition 1	Equal variances assumed	4.039	.048	-1.578	88	.118	-.77337	.08885
	Equal variances not assumed			-1.553	77.562	.125	-.78111	.09658
biography	Equal variances assumed	.289	.592	-2.196	88	.031	-.80502	.04022
	Equal variances not assumed			-2.184	83.993	.032	-.80745	.03779
Exposition 2	Equal variances assumed	.140	.709	-2.480	88	.015	-.68086	.07509
	Equal variances not assumed			-2.486	87.172	.015	-.68013	.07582
Total score for Part A	Equal variances assumed	.988	.323	-3.959	88	.000	-1.74779	.57959
	Equal variances not assumed			-3.973	87.392	.000	-1.74582	.58156

Figure 1: Comparison of scores of Part A for Class A and B

Independence Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	95% Confidence Interval of the Difference	
							Lower	Upper
Exposition 3	Equal variances assumed	1.316	.254	-1.906	88	.060	-.71728	.01490
	Equal variances not assumed			-1.907	86.549	.060	-.717221	.01484
Argumentation 1	Equal variances assumed	4.662	.034	-1.631	88	.106	-.68662	.06757
	Equal variances not assumed			-1.613	83.806	.111	-.69132	.07227
Argumentation 2	Equal variances assumed	2.082	.153	.771	88	.443	-.22528	.51099
	Equal variances not assumed			-.784	87.026	.435	-.219483	.50520
Total score for Part B	Equal variances assumed	.729	.396	-1.723	88	.088	-1.34570	.09570
	Equal variances not assumed			-1.710	87.785	.091	-1.35205	.10205

Figure 2: Comparison of scores of Part B for Class A and B

The Activation of Formal Schema

It was found that in both Class A and B provision of formal schema had resulted in a significant difference on students' understanding of expositions. But in terms of overall performance, activating relevant textual knowledge exerts a greater effect on students' listening in Class B than that in Class A (see Figure 4 and Figure 5). From Figure 4 and Figure 5, we can see that the mean score of

Class A is 0.0238, while the mean score of Class B is 0.5625. This phenomenon may be related to students' language levels, because students in Class B, majoring in humanities and social science, have a higher language level than those in Class A. It was revealed at the same time that formal schema had not produced any effect due to the students' language levels.

Paired Samples Test

	t	df	Sig. (2-tailed)	Paired Difference				
				Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	
							Lower	Upper
Pair 1 exposition 1-expositon 2	4.545	89	.000	.6000	1.25241	.13202	.3377	.8623

Figure 3: Comparison of the scores of expositions for Class A

Paired Samples Test

	t	df	Sig. (2 tailed)	Paired Difference				
				Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	
							Lower	Upper
Pair 1 Total score for Part A-B	.0680	41	.946	.0238	2.25765	.34836	-.6797	.7273

Figure 4: Comparison of total scores for Class A

Paired Samples Test

	t	df	Sig. (2 tailed)	Paired Difference				
				Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	
							Lower	Upper
Pair 1 Total score for Part A-B	2.310	47	.025	.5625	1.68733	.24354	.0726	1.0524

Figure 5: Comparison of total scores for Class B

Paired Samples Test

	T	df	Sig. (2 tailed)	Paired Difference				
				Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	
							Lower	Upper
Pair 1 exposition 1-exposition 3	5.595	89	.000	.7333	1.24341	.13107	.4279	.9938

Figure 6: Comparison of the scores of expositions for Class B

The Effect of Schema Intervention

Although the intervention of formal schema did not exert a significant effect on the comprehension of listening passages, the questionnaire results revealed that students approved the effect of the formal schema intervention. About 70% of the participants agreed that provision of relevant textual knowledge was helpful for their understanding of the passages. Then, 68.9% of the participants thought that

provision of formal schema could help them concentrate themselves on the core information, leaving out those irrelevant information. And 88.8% of the participants who were given some corresponding introductions to formal schema claimed that textual knowledge could help them obtain information (see Figure 7). And it is surprising to find that no students said *no* to the effect of formal schema intervention.

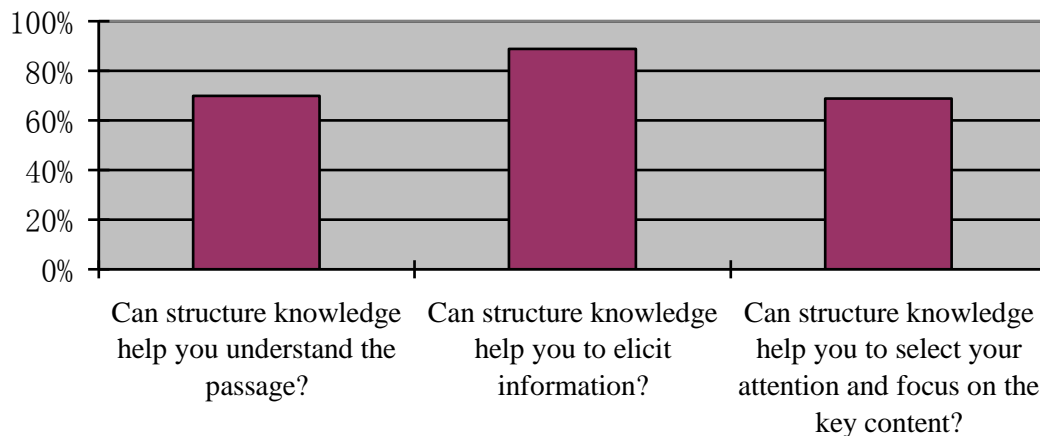


Figure 7: Students’ Opinions on the Effect of Formal Schema Intervention

As for the open-ended question, students expressed their different opinions. Some students agreed that provision of textual knowledge helped improve their listening comprehension by predicting content, selecting information input, guiding attention, promoting code and recalling, facilitating inference, and removing misunderstandings with the help of connective words. Otherwise, they would still be caught in a confusion, missing key words, failing to get the main points and resulting in listening comprehension deficiency. While some other students claimed that provision of formal schema made no difference on their listening comprehension, in which they still got nothing but a few key words. According to the analysis of the open-ended question, most students approved that the provision of formal schema could improve their understandings, but there were still some other factors in addition to formal schema that hindered their listening comprehension, such as the questions themselves or the languages of the passages. Therefore, it is quite necessary to improve students’ language skills and provision of formal schema as well.

DISCUSSION

The present study set out to explore whether Chinese college students possess the relevant and appropriate formal schema or not, whether lack of the relevant and appropriate formal schema will make obstacles or lead to listening difficulty or noncomprehension for the listeners in their listening comprehension or not and whether the provision of relevant formal schema will improve college students’ listening comprehension or not. It was found that students lack formal schema, which could affect their listening comprehension. And the effect of formal schema on listening comprehension was manifested, which indicated that it is necessary and effective to apply formal schema into our English listening.

Schema is the knowledge structure of the world stored in the long-term memory, which will be associated with and provide knowledge basis when people process new information. People’s understanding and cognition of new things also depend on the existing schema in the brain to a certain extent. Only when the new cognitive processing

comes into being can the schema be activated, which may promote our listening comprehension. However, under normal circumstances, the message itself would not always provide sufficient elements which are required to fill the slots. Comprehension needs comprehensive knowledge which relates to the theme of the discourse, for much of the comprehension is derived from the inference. "A great deal of what we 'comprehend' is not in the linguistic information we are receiving at all" (Rivers, 1981). Not all information can be found in the linguistic signal, which makes it necessary to activate our schema, including linguistic schema, content schema, and even formal schema. The present study reveals that provision of formal schema helps to improve our listening comprehension, just like what some subjects have agreed that formal schema helps them predict content, select information input, guide attention, promote code and recalling, facilitate inference, and remove misunderstandings.

Formal schema refers to the prior knowledge language learners have about the formal, rhetorical and organizational structures of different types of text. Each type of texts has its own conventional structure and semantic peculiarity. In the process of discourse comprehension, listeners or readers may always encounter different genres with different characteristics, and it will be helpful if they are familiar with the rules or conventions for its manifestation. These conventional schematic representations of text (narration, description, problem-solution pattern, general-specific pattern, etc.) can help listeners or readers interpret the

information in the text. Research on discourse comprehension has shown that comprehension is determined not only by the local factors (words, sentences or paragraphs), but also by the overall organization of the text.

As revealed in the present study, when students lack relevant textual knowledge of the listening passages, they failed to focus their minds, make a correct judgment and result in a short-circuit of listening comprehension. To be specific, when students were listening to the passages in Part A, they could only get some unimportant words, and they couldn't predict content and obtain relevant information due to the lack of formal schema.

Listening is an invisible mental process. It is a complex cognitive process in which listeners match what they hear with what they already know. In the process of listening, the listener imposes a coherent interpretation on what he hears, drawing on all existing information resources, including knowledge of the world. Carrell and Eisterhold (1988) argue that schema theory provides directions for listeners or readers as to how they should retrieve or construct meaning from their own, previously acquired knowledge. From cognitive view, this theory can provide a theoretical base for listening processing.

Listening is a process where everything that impinges on the human processing which mediates between sound and the construction of meaning. When listening, the listeners are active searchers for meaning. The active listeners will use all relevant background knowledge- knowledge of the physical context of the utterance (the immediate, surroundings, the places, the time of day,

etc.), knowledge of the speaker (gender age, known opinions), knowledge of the topic (and what the speaker is likely to know about it, or feel about it), etc. Armed with this activated knowledge the listener monitors the incoming acoustic signal, which will simultaneously shape and confirm his expectations (Brown, 1990). The present research seems to suggest that when students do not possess relevant formal schema, they would be likely to have a short-circuit in their listening comprehension. Therefore, it is necessary to build up relevant formal schema through intended listening activities with the instructions of English teachers in EFL.

Listening is primarily a cognitive activity, involving the activation and modification of concepts in the listener's mind. The perception of speech is a psychological process of interaction and inter-coinciding between schema (background knowledge) and new information (our acoustic signals). The current mode of listening is an interactive one in which linguistic information, contextual clues, and schematic knowledge interact to enable comprehension. It is a process that the bottom-up mode and the top-down mode interact and at the same time process word information.

"In schema theory research, this type of formal schematic knowledge is usually contrasted with content schematic knowledge, which is claimed to be background knowledge on the topic and relevant social-cultural knowledge. A learner's failure to activate an appropriate schema (formal or content) during learning leads to various degrees of non-comprehension" (Carrell and Eisterhold, 1988). They also think that

this failure to activate an appropriate schema may either be due to the speaker's not having provided sufficient clues in the text for the listeners to effectively utilize a bottom-up processing mode to activate schemata the listeners may already possess, or it may be due to the fact that the readers does not possess the appropriate schema anticipated by the author and thus fails to comprehend. In both instances there is a mismatch between what the writer/speaker anticipates the reader/listener can do to extract meaning from the text and what the reader/listener is actually able to do. The point is only with linguistic schema as a basis can formal schema take its full effect.

In the present research, it is found that when lacking relevant linguistic schema, formal schema itself would lead to non-comprehension. As shown in the research, provision of formal schema made no difference in the understandings of the exposition in Part A, just because students lack basic linguistic schema and couldn't understand the meaning of the key word "adopt". What's more, even with provision of formal schema in Part B, students were confused with non-comprehension, which was largely due to their lack of linguistic schema. Therefore, the experiment in this paper confirms prior researches, that is, when there is a lack of linguistic schema, there will be listening difficulty in their listening comprehension, which results in students' failure to obtain information.

CONCLUSION

With CET 4 listening tests as empirical materials, and second-year non-English majors as subjects, the present study attempted to explore the effect of formal

schema on listening comprehension in EFL. The research reveals that Chinese college students lack formal schema, which results in their unawareness of genres and structures of exposition and argumentation. To enhance students' listening comprehension, it is necessary to build up their formal schema through intended listening activities. The experiment also indicates that where there is lack of relevant formal schema, there will be a definite non-comprehension of listening comprehension, which will lead to students' failure to predict content, select information, guide attention, promote code and recall, and facilitate inference. The study also suggests that only with a basic and relevant linguistic schema can formal schema take its full effect.

The present research also reveals that there are many factors that affect one's listening comprehension, among which linguistic competence is a critical factor. Formal schema might be powerless when the students lack the basic linguistic competence. That is, even they

have certain formal schema, but because of a deficiency in their linguistic knowledge, they fail to understand the discourse. Then how can we coordinate different factors in listening instruction? Will it be possible and effective to conduct a training of formal schema in the future? Further research is needed to explore effective listening instruction. Anyway, the findings of the present study can help the instructors better understand the process of listening comprehension, which might help them better design their instruction and provide relevant instruction to students. Since there is close relationship between the formal schema and English listening comprehension, it is important to use schemata to improve listening comprehension. As ESL or EFL teachers, it is not enough for us to understand the complex interactive nature of the listening in order to provide our students with an appropriate variety and range of listening experiences; we must also improve their listening comprehension teaching with the use of formal schema.

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