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Vocabulary Book Development for Chinese Students: Learning Vocabulary from Listening

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Abstract: This study attempts to explain the general idea of the creation of a vocabulary book and its further application. Before developing this material a pilot survey was designed to investigate any obstructions that the participants may have encountered memorizing vocabulary during the course. The results show that the majority of the participants often failed to formulate the word forms of English vocabulary and this failure led to the insufficient memorization of English words. In light of this discovery the current research commenced. The first step was to look at causes. Through reading the previous literature and combined with the researcher's experience of learning English and Japanese, four causes were inferred. Meanwhile a listening-based illustrated English vocabulary sample book was developed to verify the assumption that after taking a listening-based pedagogical class, the ability to recognize English vocabulary will be enhanced (will be an issue to be addressed in the future). Also, interviews were conducted with ten Chinese EFL students with respect to their performance on the items of this vocabulary book and their opinion of the sample book.

Keywords: Material development, Chinese learner of English, Listening-based vocabulary book development, Top-down and Bottom-up listening processing.

1. Introduction

The entirety of this research comprised four sections with the primary purpose focused on listening-based vocabulary book development. Conceptually speaking word recognition skills would be developed through listening practice. A teaching material was developed which incorporated "a top-down strategies-based approach with a remedial bottom-up training approach" (Vandergrift, 2004)， taking advantage of illustrations to heighten text concreteness and hence persuade students to divert their attention to decoding the sounds and words rather than sticking too precisely to the meaning of the conversation when they were doing listening practice. Initially, a questionnaire was conducted among 80 Chinese EFL students aiming at investigating whether they encountered any difficulties during the process of reciting vocabulary. Subsequently, in the next section the causes of inefficient vocabulary learning were analyzed and solutions sought, leading the way to Section 3, which forms the heart of the research. Section 3 is concerned with how to incorporate "solutions" into developing the vocabulary book. Moreover, the final section will serve as the perspective for a further research to facilitate English vocabulary learning by using this material and test the assumption that a listening-based pedagogy will enhance a learners' ability to recognize English vocabulary and if this listening-based pedagogy is followed consistently, will Chinese EFL students change their English learning beliefs in any way? (For instance, awareness of the importance of the stimuli of English phonology) And if so, how? Although the number of participants was inadequate, the results still indicated some interesting findings. For instance, in the short answer section, most participants responded that they often failed to formulate the concept of English vocabulary and this failure led to the insufficient memorization of English words.

As Cook (2005) noted, compared to English native users, L2 users of English often face difficulties in comprehending and memorizing the L2 due to inefficient decoding. Meanwhile "L2 readers with a non-alphabetic L1 orthography are less efficient at processing the phoneme-grapheme correspondences in English words than are those with an alphabetic L1 orthography" (Randall. 2005). Additionally, due to the difference between orthographies of the EFL students' native language and English, learners are likely to understand L2 on the basis of their L1 literacy (Wade-Wooley, 1999). Furthermore, native language input should include ample implicit information to show how language is actually used. However, Chinese EFL students have little chance of being exposed to sufficient language input, especially in an interactive communication environment. On the other hand, with regard to cognition, when L2 learners of English learn English, no automatic routines have been learned yet because the problem is new, thus learners use up much more cognitive resources and have to make more efforts to acquire a new language, Ortega (2009). And Tyler (2001) also summarized a number of theories and indicated that nonnative language listeners' learning deficits are attributable to the inefficient allocation of cognitive resources, compared to native language listeners as significantly more working memory resources are distributed to the non-native language listeners to compensate for the deficiency of decoding. According to the findings mentioned above, researchers may conclude that a different writing system, the influence of the native language, the limitation of cognitive resources and the lack of a rich and meaningful exposure to language in use are the four main barriers for Chinese EFL students.

In order to mitigate the influence of the native language on second language learning and adjust the Chinese EFL students' English learning preferences, meanwhile making study both entertaining and facilitative, a listening-based plus illustrated vocabulary teaching material was developed.

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2. Background

Hulstijn (2001) carries on a more comprehensive work in the foundation of predecessor studies, combined of the question of vocabulary knowledge, learning and incidental and intentional vocabulary learning and related pedagogical implications. According to him different word items need different amounts of positive impulses to reach to the activation threshold, some words being easy to recall whereas some are not. At an initial learning stage, L2 beginners are often more poor at distinguishing the phonologically similar words more often than semantically similar words because "L2 lexical entries are coded as phonological or orthographic extensions of L1 lexical entries" (p.261).

On the other hand A number of factors have impacts on learning difficulty of words; Hulstijn mentions two in his paper: codability (codability of the morphonological form of words) deficits factor and knowledge dependent factor. The difficulty level of coding and storing word forms is based on the learners' sense of familiarity with words forms, L2 learners also have to pay more attention to elaborate the new words if they are presented with a word form unrelated to its meaning (p.262).

How many words do L2 learners need to know? According to the conclusion of Hulstijn (2001) " learners must learn to activate components of lexical information from orthographical or acoustic form to meaning or from meaning to orthographic or phonetic form" (p.263). L2 learners have to know 5,000 base vocabulary to understand non-subject texts and at least 10,000 base words should be attainted by L2 learners for daily communication. On the other hand, the quantity of L2 learners' receptive word knowledge is 10 times bigger than their productive knowledge.

2.1. Different writing systems and learning strategies

According to Cook (2004), Chinese characters convey a meaning rather than a particular spoken form and therefore the Chinese character system is identified as a syllabic system with a fairly high amount of logography, or "meaning-based". Conversely, English writing is an alphabetic system with a small amount of logography and is sound-based.

As Koda (2005) acknowledged:

Children develop sensitivity to the particular regularities of spoken language well before formal literacy training commences, and this sensitivity is generally assumed to regulate both perception and interpretation of linguistic input thereby guiding and facilitating subsequent language learning and processing… (Ellis, 2002; MacWhinney, 1987; Slobin, 1985)

Chinese children and adults learn their native language writing system using a degree of image training involving reading Chinese characters and simultaneously acquiring its related pronunciation; at the same time they have to focus on the shape of the character and are taught how to distinguish the semantic differences of each character from other similar characters while memorizing different tones. In Chinese different tones denote different characters: for example "tó ng ," "tóng," "tǒng" and "tòng," which means "lead to," "red," "unify," and "pain," respectively. Conversely, English children and adults learn their native language writing system through many "defined stages": linking the phonemes (smallest sound units which carry meaning) to their related morphemes (which can either be a word or part of a word as the tiniest grammatical units in a sentence) grounded on phonological rules, disposing of each single word and its corresponding meaning by a "lexical route," and using the appropriate words and grammar structure and "distinguishing the functional and content words through orthographic regularities and lexical spelling" (Cook, 2004). As well, according to Tyler (2006) alphabetically literate individuals have the ability to "become aware of phonemics and manipulate individual sounds in spoken words;" nevertheless, English L2 learners, especially those from countries with non-alphabetical writing systems seem to lack this kind of ability. Native English-speaking children and adults' awareness of syntax reflects the realization that the order in which words are presented determine sentence meaning." However, English L2 learners "bring to English the pronunciation and writing system of their first languages (Cook, 2004)."

2.2. Evidence from reading

1) Dual route models

On the other hand, (Coltheart et, al, 2001 and Patterson & Morton, (1985), refined "dual route models" (DRC), "non-lexical" (phonological) access routes and "lexical" access routes. The former route indicates that people alter sounds into graphemes unconsciously and vice versa, while lexical access refers to people paying attention to the whole shape of a word and converting them into visual "logogens." Chinese English language learners favor a particular route that relies almost entirely on the "lexical route" Chinese readers ignore the individual letters of the word and treat them as a whole and see them in mental lexicon as a intact item along with its whole pronunciation (Cook, 2004). In addition Nisbett and Norenzayan (2000) noted that while orientals adopt holistic perspectives, contrast, occidentals prefer to perceive the world with an analytical view. Holistic thought "involves orientation to the context or field as a whole, including attention to the relationships between a focal object and the field." Thus from a different angle can be assumed Chinese-English language learners are likely to perceive or recognize English letters as a whole, hence are likely to recite English words by rote and link the orthography to semantics directly. This kind of learning preference might therefore lead them to overlook the correlations of sounds and their related graphemes so causing the English word recognition deficiency.

2) Cross-linguistic effects

English L2 language learners, especially those who have passed their sensitive learning period, often progress faster than children in the initial stages because they are already literate in their first language. However, their comparatively mature native language will have an influence on foreign language learning. For example, many empirical research and case studies have demonstrated that non-native speakers' reading speeds are considerably slower than native speakers. Additionally, in comparison with non-native English speakers whose language is alphabetic-based, the reading speeds of language learner whose language is non-alphabetic based is also slow. Cook (2014) states that Spanish L1 English speakers read English three times faster than Chinese L1 English speakers. According to Koda (1996), non-native English language learners reading deficits are caused by (a) prior reading experience, (b) cross-linguistic effects (dual), and (c) limited linguistic knowledge. In other study, Wade-Wooley (1999) compared Russian and Japanese ESL students' similarities and differences specifically in L2 reading. The

results showed that the Russian ESL students had more superior phonological skills than the Japanese ESL students; however, the Japanese ESL students outperformed the Russian ESL students in recognizing legitimate words. She hence concluded that non-native speakers might utilize processing strategies of their native language to read new and unfamiliar language. Similarly, Xiuli Tong and Catherine McBride-Chang (2010) demonstrated that native Chinese-speaking children developed a visual orthographic-based strategy to learn to read English as a second language.

2.3. Cannikin Law

Additionally, compared to occidental students, Chinese Japanese language learners are likely to omit the pronunciation of Japanese kanji (the mutually intelligible Chinese and Japanese representation units), because Chinese Japanese-language learners are able to understand mutual representation parts without knowing the exactly pronunciation. However, as the cannikin Law reveals, the capacity of a bucket depends on the shortest plank of wood. This kind of superiority will eventually turn out to be shortest plank of wood and limit the balanced development of language capacity.

2.4. Cognition & working memory

As Helmut D.Sachs posits to improve our memory and make our learning effective, it is useful to get an idea of how information coming from external sources actually becomes a memory (p.137). Before getting into a discussion about our cognitive and working memory, it is necessary to introduce an important concept, mental lexicon.

2.4.1. Mental lexicon

The mental lexicon is a place where we store all our linguistic information. According to (Cook, 2005) "the language user's mind contains a large mental dictionary complete with all the information about each lexicon item that the person knows." However, we have to distinguish the mental dictionary from a real dictionary, because the amount of information in our mental lexicon evolves through subsequent language learning. Levelt stated that "lexical selection" and "form encoding" are the two core serial operations in producing speech. In a nutshell, these two-system operations make vocabulary retrieval available.

2.4.2. The limitation of our cognitive resources

Lourdes Ortega posits Cognition refers to how information is processed and learned by the human mind ----to get to know (p.82). Human cognition consists of representation (knowledge), which is passively buried into the long-term memory and access (process), which takes place in the working-memory. Mental processing is a dual computation: automatic (unconscious) and controlled (conscious). Our cognitive capacity such as attention and working memory is limited. Automatic mental processing occupies few cognitive resources and hence many fluent processes run in parallel. However, voluntary mental processing needs much more effort and consumes many more resources and therefore operates serially.

Working memory (WM) is responsible for processing and converting information. Therefore, it plays a vital role in reciting and retrieving vocabulary. Ellis (2001) stated that "the central executive regulates information flow within WM," and gets involved in many different activities. Besides, there are two servant systems, the "phonological loop" and the "sketch pad". The "Phonological loop" comprises two components, the "Phonological loop" itself and "articulatory rehearsal." However, the "articulatory rehearsal" can only operate in serial with all information waiting in a queue and chosen at priority only in an emergency situation. Perhaps, this is one of the reasons why our working memory capacity is limited.

2.5. Summaries

The conclusions to be drawn from these theories are that Chinese English language learners adopt "visual orthographic-based" strategies to learn English and thus they have a strong reliance on a "lexical" process. Also they are accustomed to a non-alphabetic-based writing system and hence lack the ability to manipulate individual sound units. Additionally, at the initial stage language learners consume a great amount of cognitive resources to "digest" new knowledge, because the controlled process runs in serially and it delays the speed of processing new knowledge. These are can be assumed as the main reasons for why Chinese EFL students fail to recognize English words. For the sake of facilitating English learning, the next step is to seek solutions.

3. Discussion of the Results Collected from Pilot Questionnaires

3.1. Pilot questionnaire subjects

A pilot survey was conducted among 80 Chinese EFL students, with only 74 valid questionnaires returned. Of those who responded to the questionnaire, all resided in Nanjing, Jiangsu Province, China. Approximately 70 percent of the respondents were female, while the remaining 30 percent were male. In addition, 56 respondents were high school students and who been learning English as a compulsory subject since the third grade of primary school. The other respondents, they had learning English for various purposes and had all previously studied English as a foreign language for more than ten years in main land China.

3.2. Results of the pilot questionnaire

The results are organized into four sub-sections. The first section was denoted: "How many participants were using a vocabulary book to memorize vocabulary at that point?" Section 2 presented the results related to the type of the book, the respondents would like to use at that moment as well as its related reasons. In the third section, a question was posed to try to find out about the type of book (text-only, illustrated) the respondents thought was the best way to memorize vocabulary, or whether there was no difference between the two types. Additionally, the last section summarized the difficulties that EFL students encountered during the process of reciting English vocabulary.

Are you using a Vocabulary book now?

As indicated in Chart 1, over half of the respondents (54%) were not using a vocabulary book to memorize vocabulary at that moment. And at least forty percent of the respondents were using a vocabulary book to memorize vocabulary.

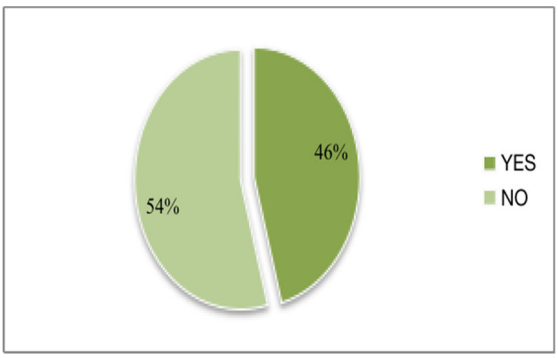

Chart1. Are you using a vocabulary book now?

What type of vocabulary book would you prefer to use?

Chart 2 reveals that the majority of the respondents chose text-only books for the reason that a text-only book was arranged in alphabetical order and hence learners could follow a fixed order to complete their vocabulary studying. In addition, most of the vocabulary items in text-only books are displayed together with example sentences. Learners thus are aware of how to use the vocabulary through example sentences and collocation. On the other hand, approximately 40 percent of the respondents tended to choose visual vocabulary books as they made learning entertaining and facilitative, especially in reciting words.

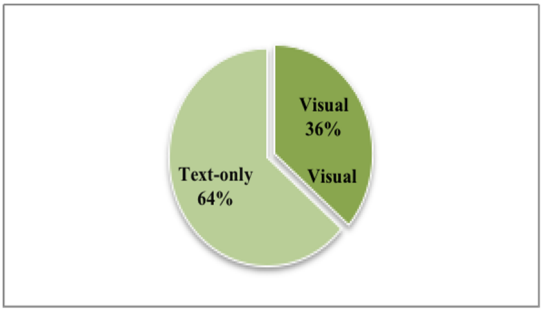

Chart 2. What type of vocabulary book would you prefer to use?

What type of book do you think is the best way to memorize the vocabulary?

As shown in Chart 3, the majority of the participants thought there was no difference between the two books (text-only or illustrated vocabulary book). Only approximately 35 percent of the respondents considered that an illustrated book was the optimal choice to memorize vocabulary.

However, any number of empirical theories have demonstrated that pictorial material provide a better way to memorize vocabulary than bland conventional text-only materials.

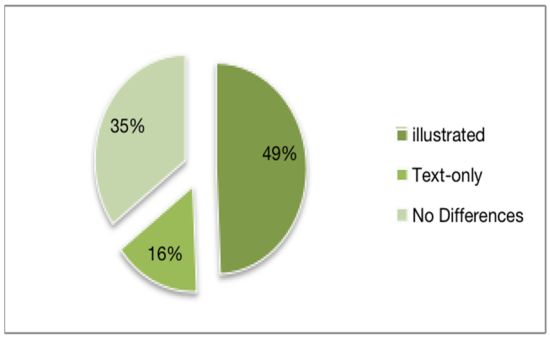

Chart 3. What type of book do you think is the best way to memorize vocabulary?

3.3. Short answer question section

What are the problems you have encountered in the process of memorizing vocabulary?

All respondents were given an opportunity to write about their own difficulties with acquiring vocabulary. The majority of the participants indicated that a) recording vocabulary in long-term memory is an arduous task; b) they often failed to formulate the form of English vocabulary and this failure led to the insufficient memorization of English words; 3) they played a passive role in the classroom; 4) memorizing large amounts of vocabulary items seemed to be virtually impossible; 5) not many of the new items are repeated in the next class; 6) instrumental motivation; most of respondents learn English for passing exams and have no clear integrative objectives to learn English.

4. Material Development

4.1. Developing teaching material

Most teaching material writers are constantly concerned about how to tackle the formidable task of integrating applied linguistic theories with material development.

Tomlinson (2013, p.2) reports some reasons for why there are "big gaps" between applied linguistic theories and materials development (a) Abstract applied linguistic theories are hardly comprehended by practitioners and also seem difficult in practice; (b) external influences also need to be considered in material development, such as, negative attitudes towards learning, instrumental needs, backward teaching conditions, etc.; c) the need for more innovation in material developments. For the sake of alleviating the problems between material development and theoretical application he offers some basic theory and feasible measures for developing materials.

4.1.1. SLA theory and teaching material development

Table 1 is a summary of ten general SLA theories identified by Tomlinson (2013), which could serve as evaluation criteria of gauging the match between applied linguistic theory and its practice.

Table 1 Match between SLA theory and current course book activities

Table 1. is derived from Applied Linguistics and Materials Development p.16

SLA Theory
Rich and meaningful exposure
Affective engagement
Cognitive engagement
Utilization of the resources of the brain
Noticing
Opportunities for use
Opportunities for interaction
Making use of non-linguistic communication
Catering for the individual
Focus on meaning

4.1.2. IELTS Listening

"Meaningful exposure to language in use" (Why IELTS Listening) and "Being given opportunities for contextualized *and purposeful communication in the L2"*

Original version: IELTS Listening

a) What is the IELTS test and what are the components of the IELTS test?

IELTS, the International English Language Testing System, is one of the highest stakes English proficiency tests in the world, designed to assess a candidate's full English ability, that is, productive capacity (speaking and writing) and receptive capacity (listing and reading). The IELTS is widely accepted by over 9,000 organizations all over the world including universities, employers, immigration departments, etc. Depending on the different purposes for students to take the test, the IELTS test is separated into two modules: an Academic module and a General Training module, candidates for both modules taking the same listening test.

The IELTS listening test consists of four sections; question types vary from multiple choices to short answer questions. In addition, according to IELTS official introduction sections 1 and 2 deal with every day social situations, and sections 3 and 4 deal with educational and training situations. Also sections1 and 3 are in the form of conversations, while sections 2 and 4 are monolingual.

Table 2. IELTS Listening question types and what skills are tested:
Data were collected from:

Question Type	What skills are tested
Multiple Choice	Detailed understanding of specific points, or general understanding of the main points of the recording.
Matching	Listening for detailed information Following a conversation between two people Recognizing how facts in the recording are connected to each other
Plan/Map/Diagram labelling	Understanding of a place and how this description relates to the visual. The ability to understand explanations of where things are and follow directions
Form/note/table/flow chart/summary completing	Focusing on the main points the person listening would naturally write down
Sentence completion	Identifying the important information in a recording. Understanding relationships between ideas/facts/events, such as cause and effect.
Short-answer questions	Listening for facts, such as places, prices or times, heard in the recording

http://www.ielts.org/test_takers_information/question_types/question_types_-_listening.aspx

The researcher considers that IELTS Listening is fairly good learning resource because first, the listening material itself contains various learning resources, a contextualized listening script and authentic recordings. Second, the listening scene setting satisfies "contextualization" requirements, quite close to daily life, and also caters to academic the learning needs of most students. Additionally, the book that was designed in this study not only teaches students how to learn to listen but also how to listen to learn, and more detailed information on how to facilitate language learning by taking advantage of IELTS Listening material will be given in the later section.

On the other hand, according to John Gildea (2012), head of IELTS at the British Council, "the number of Chinese candidates remains high," and it is also reported by the China Daily, that since 2008, the number of Chinese candidates has been increasing at an impressive rate close to 10 percent per annum.

4.1.3. Post-grammar checking

Noticing how the L2 is used: (inductive and deductive learning)

Being willing to spend time on learning a language is important. As mentioned above, "improve our memory and make our learning effective, it is useful to get an idea of how information coming from external sources actually becomes a memory." This quote is very close to an old Chinese idiom "zhui ben su yuan" which means "trace to its source," as with any learning, greater understanding always comes together with the study of the process of learning. Why is it necessary to go back to every beginning and why is it better being mindful. Because we have always been accustomed to accepting knowledge passively. Another old Chinese saying, "bu shi lu shan zhen mian mu zhi yuan shen zai ci shan zhong" means the same as "You can-not see the forest for the trees." Normally, in terms of grammar learning processing, there are two primary kinds of processes that might take place: explicit and implicit grammatical knowledge. And the difference between explicit and implicit grammatical knowledge is presented below.

Table 3 is derived from Deductive and Inductive grammar teaching Arnis Silvia (2012)

Table 3. The difference between explicit and implicit grammatical knowledge

Explicit grammatical knowledge	Implicit grammatical knowledge
Conscious knowledge	Unconscious / Subconscious knowledge
Requires awareness and intention	Does not need awareness and intention
Accessed through explicit learning instruction	Accessed through the acquisition in natural setting (spontaneous language tasks)
Accessed through controlled processing	Accessed through uncontrolled processing
Accessed slowly	Accessed quickly
Involves the explanation of grammatical rules	Does not involve the explanation of grammatical rules
Happens both deductively and inductively	Mostly happened inductively

In line with the two processes mentioned above, there are also two approaches of grammar teaching: inductive and deductive approach. In order to balance "inductive (starts with some examples from which a rule is inferred) and

deductive (derives from deductive reasoning where the concept goes from general to specific)," (Silvia, 2012) learning while a post-grammar awareness section is added to classroom activities or course books. Learners apply the language knowledge or skills that were given in explicit instructions from their teachers and course books at first, and then gradually they are able to discover the rules by themselves; the stored knowledge will become more elaborated or specified knowledge via restructuring and accreting (McLaughlin and Heredia, 1996).

4.1.4. Affective and cognitive engagement

According to Tomlinson (2013) the importance of affective engagement has been documented by a great many empirical studies (Craik &Lockhart, 1972; Schuman, 1997; Arnold, 1999; Pavlenko, 2005 and Braten, 2006 ;) and positive emotions seem most likely to stimulate deep processing and hence boost language learning. Conversely, negative or no emotions impedes learners' progress in language acquisition. On the other hand Tomlinson (2013) reports that

It is important that learners are cognitively engaged by the texts and tasks they are given to use. They need to use such high level mental skills as inferencing, connecting, predicting and evaluating while processing language. If they do, they are much more likely to achieve deep processing and to eventually acquire language and deep language skills than if they are restricted to using such low level decoding and encoding skills as learning dictionary definitions, recognizing and repeating sounds…

The very beginning of language learning is a new experience and a top-down path. It will certainly consume a lot of cognition resources. According to Joel & Richard (2012), text-accompanying illustrations have been posited to improve learning as a result of their making text information more concentrated, compact, concrete, coherent, concise and comprehensible. The purpose of using illustrations is first, to try to flesh out the context to help the learner focus on language (syntax or semantics). And in consideration of the limited duration of our working memory and serial working path of our phonological store, we sometimes find it difficult to recall a word. Illustrations are able to offer multiple paths for us to retrieve the necessary information. Vivid and vibrant colors will attract students' attention and meanwhile, learners may feel they are able to learn English in fun way.

4.1.5. Pedagogical implications

Hulstijn (2001) provides some significant pedagogical implications for English education. First, L2 learners benefit from "inferencing" as a useful strategy to potentially elaborate knowledge and enhance retention. Secondly, establishing personal vocabulary data base by writing down word forms and other information, including "morphology, pronunciation, meanings, typical examples of usage, any associations" (p.277) on the reverse order, thirdly, "distributed practice with increasing intervals after correct retrievals and short intervals after incorrect retrievals generates much higher retention than does massed practice" (p.280) and difficult items should de consolidated. Fourth, different word characters may have an influence on vocabulary learning, some items should be isolated out and learned by rote. Fifth, in order to train automatic word recognition, rereading or relistening to "new" texts containing "old" elements, a type of input processing at the "i minus one" level (p.284).

4.2. Learning Vocabulary from Listening Practices

The listening process moves through the following steps "receiving, attending, understanding, responding and remembering" in a direct line. We receive acoustic information and then pay attention to the interesting information and consciously or unconsciously select and reject some parts of that piece of information. However, sometimes in listening, the key point is omitted and our understanding is more consistent with our own expectations than what was actually said.

Buck (2001) mentioned that there are different types of knowledge that are used in listening: "linguistic and non-linguistic knowledge." Linguistic knowledge consists of "phonology, lexis and syntax…" Conversely, non-linguistic knowledge is about "topic, the context and background knowledge…"

4.2.1. Two approaches to listening:

All too often listening is considered to be secondary to speaking as a language skill. Recently the importance of listening instruction has finally been recognized however. As Rost (1994) claims, listening provides the comprehensible basis of second language study and thus underlies speaking and therefore plays a vital role in language learning.

Since the 1980s there have been two main approaches to assessing listening input among the various listening instructional techniques: "bottom-up" and "top-down". Field (2004) points out that the terms "bottom-up" and "top-down" are often used to mark a distinction between information derived from perceptual sources and information derived from contextual ones. And also Vandergrift (2004) states briefly that the "top-down interpretation view raises meta-cognitive awareness about listening." The listener actively uses the incoming sounds to build another interpretation to the original meaning of what they have heard. Conversely, the "bottom-up processing view develops lexical segmentation and word recognition skills." The listener decodes the sounds from the lower level meaningful units to the whole context.

a) "Bottom-up" and "top-down" listening processing:

"Bottom-up" listening processing is considered "as a process of moving through a number of continuous stages that occur in a fixed order, Buck (2001)." At the beginning, acoustic input is decoded into phonemes and then processed step-by-step. Ultimately, listeners are capable of interpreting the literal meaning in respect to communicative context. However, language comprehension is not a one-way street as language is often ambiguous, and one word may have more than one meaning. In that situation a listener utilize various kinds of knowledge to process information and distinguish these ambiguities; "top-down" or "expectation-driven" processing is the general solution to help us resolve them. Therefore, listening comprehension is a "top-down" process in which various type, of knowledge are involved in understanding language and not applied in any fixed order.

b) Interactive-compensatory mechanism:

Some commentators have claimed that the relationship between "top-down" processing and "bottom-up" processing tends to be more complementary rather than contradictory. Lund (1991) reported that "L2 listeners focused more on main ideas and were more willing to construct a plausible content to compensate for insufficient understanding of the text." However not only L2 learners but also even confident L2 learners and native speakers also take advantage of top-down

processing to "redirect attention to bolster waning interest or to critically evaluate what they hear, (Vandergrift, 2004)." Additionally, Field (2004) conducted an experiment among 47 EFL students from different countries, (however, the majority of the participants their native language was alphabetic-based) to clarify "the extent to which second-language learners are inclined to place their trust in top-down rather than bottom-up information." He demonstrated that "listening to a foreign language may be assisted by an interactive-compensatory mechanism, which compensates for gaps in understanding." He acknowledged that:

When a salient word is unfamiliar, learners do not consistently adopt a technique of visualizing the orthographic form of the word and inferring its meaning from context. Instead, they frequently choose to match what they hear with a known word which is approximately similar.

That is to say, most L2 learners directly jumped to the "phonological route" and chose the most reliable word from their knowledge to match their expectations. As well, in the feedback section of this research, some feedback from lower level students may to some extent confirm this result.

4.2.2. Word recognition: recognizing words in reading and fluent speech:

Word recognition is a gradual process. Learners initially sound out words grounded on phonologic rules and recognize them as whole units within the process of encountering these words consistently during the subsequent learning course and the consolidation of them through repeated practice. However, for the sake of catering to language's fundamental communicative requirement, knowing the word form and its related meaning is not enough. Learners have to know how to use it.

As Hulstijn (2001) mentioned, word recognition in reading is the ability of a reader using either phonologic route to access isolated written words precisely and effortless or not, whereas understanding a word in speech is different form understanding in written form. According to Rost, "word recognition is the rudimentary task of spoken language comprehension." He claimes that there are two simultaneous tasks in word recognition in listening: "1) identifying words and lexical phrases and 2) activating knowledge associated with those words and phrases."

"The development of automaticity of word recognition is considered to be a critical aspect of both L1 and L2 acquisition" (Segalowitz et al., 2008 p.34)" Automatic processes are wired in and executed without intention or conscious awareness. They run on their own resources, thus can operate in parallel (Hulstijn, 2011 p.264). Normally, if listeners are capable of assessing words at a speed of two or three words per second, then they can concentrate on grasping the information and understanding fluent speech and similarly, fluent reading comprehension occurs when readers are able to proceed at a speed of 200 or 350 words per minutes. Nevertheless, numbers of empirical studies demonstrated that L2 learners' language processing speed is too slow to complete such an automatic task.

4.3. Summary

The previous sections, analyzed the four main factors that are likely to be the main barriers to Chinese EFL students learning English words. Also mentioned above was the fact that Chinese English language learners rely heavily on visual orthographic-based strategies to read English. Therefore, they have to be trained to become more sensitive to meaning sound segments. Our research concentrated on how to leverage listening to enhance Chinese ESL students' ability to recognize English vocabulary. In order to mitigate the influence of the native language and adjust English learning preferences, while at the same time making study both entertaining and facilitative, a listening-based illustrated vocabulary learning material was developed.

5. Concept of Creating This Teaching Material

As Hulstijn (2001) claims that in normal reading and listening, lexical access is not subject to top-down influence from syntactic and sematic processing; the processing of a word is largely driven by the input code itself rather than by contextual information, (p.264). However, actually not every language learners actually know every word in an unfamiliar text, and thus it is necessary to develop top-down processing to compensate for their underdeveloped vocabulary knowledge; however this does not mean that "the training of automatic word recognition at sub-lexical level should be abandoned."

Additionally, according to Tyler (2001), Wolff (1987) demonstrates that nonnative speakers' low level processing capacity still grows inadequately compared to that of native speakers and hence they have to allocate many working memory resources to low level decoding processes. However, nonnative speakers can perceive the meaning of passage easily if contextual cues such as accompanying illustrations are provided. He also argues that "in terms of working memory, if the topic (non-linguistic knowledge) is known, then nonnatives may rely less on low-level processes for comprehension, leaving more resources for high level comprehension process." Also, Tyler states that "concrete knowledge may reduce the difficulties of reconstruction of mental model and thereby nonnative learners may efficiently utilize their cognition resources." Furthermore he argues that in light of the results from his experiment there is no significant difference between experienced nonnatives and natives' performance on topic tasks; nevertheless in the T-test section nonnative language speakers performed very well distinctly on topic task. Thus, to some extent, "some lower level student's poor underlying language processing may be masked by the effects of topic knowledge and topic knowledge may inhibit the development of low-level foreign language processes from controlled to automatic processes." He thereby suggests an "isolated" method to develop bottom-up processes.

In accordance with the above findings, the present study is attempting to seek any the following solutions.

1) Adjusting Chinese EFL students' learning preferences, altering their reliance of direct vision input through heightening sensitivity to the sounds and thereby enhancing their ability to visualize related forms.

2) For experienced English language learners this material balance the low and high-level processing during listening practice. Much more concrete information is provided by context accompanying illustrations and thus language learners are able to pay more attention to salient language features and also become accustomed to acoustic stimuli rather than stick to the meaning of text. The concept to some extent caters to Hulstijn's implication (automatic word recognition at a bottom-up level should be tantamount to intelligent processing by learner.) that on the basis of

understanding of the text (non-direct), experienced English language users may actively enhance their awareness of phonology.

3) For lower level English language users, if the low-level acoustic inputs are meaningless, then the high-level involvements may disrupt their understanding of the text. They are likely to interpret the whole text in line with their own speculations. Therefore, the initial step is to offer them much more general and correct meaningful guidance.

In order to ascertain the effects of this book and also to anticipate further studies, an additional feedback section has been developed, to look at the following issues:

1) When lower level English language learners do listening practice whether they rely mainly on top-down processing (and whether too many subjective viewpoints affect their decision making).

2) After looking at contextual illustrations will lower level English language learners change their perspective of the meaning of the text and how?

3) Whether high-level English language learners can grasp and recall significantly more information or key words after using an illustrated version than the bland original one.

4) Their opinions concerning this book.

5.1. Sample book

The entire book comprises 10 units on what students may encounter in their daily life: school orientation, course discussion, a library setting, renting a house, job hunting, touring, community life, going shopping, animal, hospital. However, for the sample book 20 items (including Map, Matching and Form) were each extracted from Cambridge IELTS 8 English authentic examination paper Test 4 section2 and Cambridge IELTS 9 English authentic examination paper Test 2 section2.

Book structure:

Table 4. Book structure

Authentic items: *Types: Multiple Choices* (11-13)
Signaling words & Illustrations
Bilingual word sheet
Phonetic and orthographic rule
Useful grammar
Practices
Authentic items: Map (14—20)
Signaling words & Illustrations
Bilingual word sheet
Phonetic and orthographic rule
Useful grammar
Practices

Original one:

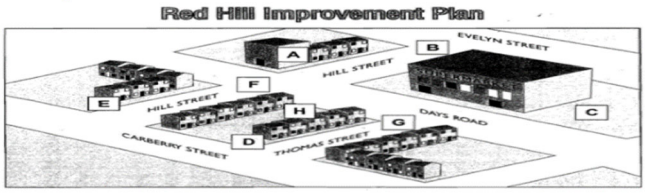

Figure 1. The original one picked up from IELTS 8 English authentic examination paper Test 4 section2

Picture 2 is the illustrated version based on the original version, which extracted from the IELTS 8 English authentic examination paper Test 4 section2 and edited by researcher. As above-mentioned, on account of the deficits of the low-level listening processing, nonnative language learners are likely to allocate too much working memory on low-level processing and hence standing in the way of their comprehension On the other hand, some experienced language learners might use any number of skills in figuring out the answers. Therefore the core concept of developing this book is to utilize the illustrations to provide an indirect description of listening question items for the sake of alleviating the problem of unequal distribution of cognitive resources and meanwhile provide concrete information for the experienced language learner, hoping they are capable of noticing the information and its related acoustic input.

Figure 2. The illustrated version by researcher in this research

5.2. Further application

Replication:

In this study, the lesson plans of Lam and Wong' s experiment (2000) were replicated to present a possible listening instruction of what can be used in the further English classroom.

Lam and Wong (2000) designed a training material and tried to figure out how to implement interaction strategies in the ESL classroom to enhance competence by using this material. Their subjects were all from Hong Kong and all the subjects had previously studied English for more than 10 yeas.

Procedures:

Six consecutive lessons (50minutes for each class) were planned, on the basis of the material designed for this study. As mentioned above, 10 items were extracted from the Cambridge IELTS 9 English authentic examination paper Test 2 section2.

According to Hulstijn (2001), for the sake of training automatic recognition in listening and stimulate students' curiosity to the text, new listening material should be added in and meanwhile to contain the "old words" from the old version, thus the researcher separated 10 items into two parts, successfully adding this directive implication into the material.

Lesson plan:

Table 5. Lesson plan

Date:	Purpose:
D1.Lesson One: *Awareness raising & trail*	A. Students will be able to know how to use this book. B. Teaching and Providing practice on "listening" (Multiple choices 3 items) C. Explicit grammar & expressing instruction teaching
D2.Lesson Two *Reinforcement*	1. Revising the knowledge 2. Work in pairs / to reproduce the knowledge
D3. Lesson Three *Consolidation and revision*	Revising, practicing, and consolidation the use of 1) this book (finish the items 14-20)
D4.*Lesson Four* *Reinforcement*	1. Revising the knowledge Work in pairs / to reproduce the knowledge
D5.*Lesson Five* *Consolidation and revision*	Revising, practicing, and consolidation

At the beginning of the first class the teacher will ask the students to listen to the authentic items extracted from IELTS 9 English authentic examination paper Test 2 section2 only once and then answer some comprehension questions. Subsequently, the teacher will ask the student to speak out their choices and give the corresponding reasons. The next stage is giving students two or three minutes to acquaint themselves with the illustrated version and then listen to the recording once again. After listening again, the teacher will give the correct answers after asking for their answers and pay attention to whether students have changed their answers on their own initiative. If there is sufficient time remaining the teacher will explain useful words and expression, and grammar structure and play the recording again. The script will be given to the students to find out the grammar structure by themselves as homework and they will consult with a partner.

6. Feedback Section

6.1. Participants

Ten participants were classified as high-level, or low-level English language leaners, (five in each classification).

The high-level English language learners had sat in either an IELTS examination in 2013 or a TOEIC examination within two years, obtaining an IELTS score of 7.0 overall (at least 6.0 in each module) or a TOEIC score of more than 860 overall. According to IELTS official data, Chinese candidate's average mean score in the listening section test was 5.8 and average mean overall score was 5.7. Therefore, all the high-level participants were well above the average. The low-level English language learners had not experienced explicit concatenate English instruction for more than two years and had no English proficiency certification either.

6.2. Procedures

1. Listening material

a) Ten items (three of the items of multiple choice and the remaining seven items require participants to look at the map and answer the questions) were extracted from the Cambridge IELTS 9 English authentic examination paper along with the associated recording.

b) Researcher-designed contextual pictures that are related to the original listening test items were prepared.

2. Questionnaire

There was one questionnaire which was edited from language acquisition center website webinar with Dr. Larry Vandergrift accessing listening. (Worksheet for Discovery Listening Wilson, 2003 (Sheet A.)

Correct Answers	Incorrect answers / Reasons:
1. A.	B. traffic jams: "Increasing (speed)* cars" (More cars will bring traffic congestion) C. increase pollution: "Increasing (speed)*" cars (More cars will produce air pollutions)
2. B.	A. extended. power lines* (extension lines) C. repaired. (Something need to be restored)
3.C.	A. the council. (Repeat many times) B. the power company. ("extra found", so it must be a well-fund company) C. local businesses. (randomly)

All the participants were asked to complete the same items, however high-level students were asked to write down as much information as possible. After finishing all the items the researcher asked them a) the general concept of this passage, b) the reason why they chose the answer, c) if there were any key words that they could catch. Researcher subsequently showed them Sheet A. They were allowed to finish a number of items before the second listening. All the participants were given 2 or 3 minutes to take a look at the illustrated version and did the same listening test again. The final phase was divided into two parts, the researcher checked whether participants had corrected the answers and the corresponding reasons. High-level language learners were also asked to write down as many words that they were able to grasp from the text as possible.

After the listening test, the researcher intentionally asked all the participants a) what were their opinions about this material, and b) whether the illustrations assisted their comprehension of this text hence allowing them to pay more attention to the language structures.

6.3. Results

a) Results from low level students:

1) Performance on 10 items: (First try):

Table 6. Performance on 10 items: (First try)

No.	Respondents.	Accurate Rates
1.	5	0%
2.	5	0%
3.	5	20%
4.	5	0%
5.	5	0%
6.	5	0%
7.	5	0%
8.	5	0%
9.	5	40%
10.	5	0%

2) Feed back of interview: (First try)

Why did you choose this answer?

1.Community groups are mainly concerned about

A. pedestrian safety.

B. traffic jams.

C. increased pollution.

2.It has been decided that the overhead power lines will be

A. extended.

B. buried.

C. repaired.

3.The expenses related to the power lines will be paid for by

A. the council.

B. the power company.

C. local businesses.

3) Table 7 Feed back of interview: (First try):

"XXX" denotes "original words extracted from listening script"

*( ). denotes "missed"

(_____). denotes "cognitive manipulation" Lower level nonnative listener's own explanations

___*. denotes "overly reliance on to the previous knowledge"

4) Performance on 10 items: (Second try):

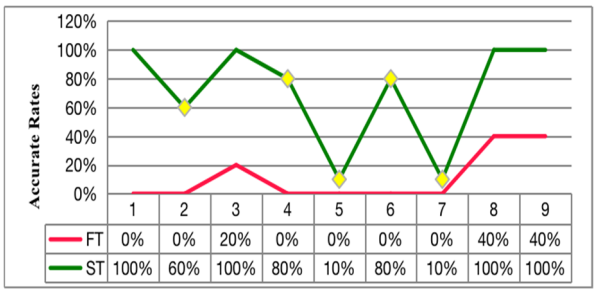

Chart 4 Performance on 10 items: (Second try):

2) Feed back of interview: (Second try)

Why did you choose this answer now?

1.Community groups are mainly concerned about

A. pedestrian safety.

B. traffic jams.

C. increased pollution.

2.It has been decided that the overhead power lines will be

A. extended.

B. buried.

C. repaired.

3.The expenses related to the power lines will be paid for by

A. the council.

B. the power company.

C. local businesses.

Table 8. Feed back of interview: (Second try):

Correct Answers	Incorrect answers / Reasons:
1. A.	A. Illustrations plus " Children walk to the school" Although they still do not know the meaning of pedestrian
2. B.	B. "move to the underground" C. still do not know the meaning of buried
3.C.	C. "bear the cost themselves"
4.C.	Illustrations
5.D	Still missed
6.G.	Illustrations
7.B.	Still missed
8.F.	Illustrations Half way down to

"XXX" denotes "original words extracted from listening script"

6) Feed back of questionnaire: (First try and Second try)

How much of the meaning do you think you understood? (First try VS. Second try)

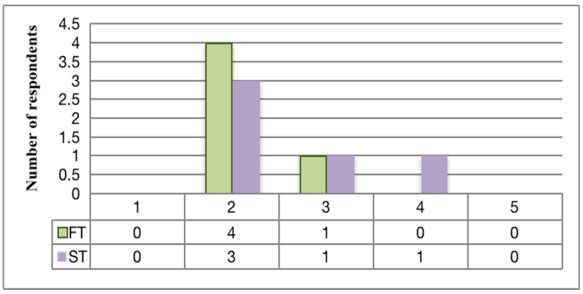

Chart 5 How much of the meaning do you think you understood? (First try VS. Second try)

1. denotes: almost everything
2. denotes: less than 40%
3. denotes: about 50%
4. denotes: more than 60%
5. denotes: almost all

What problems did you have? (First try)

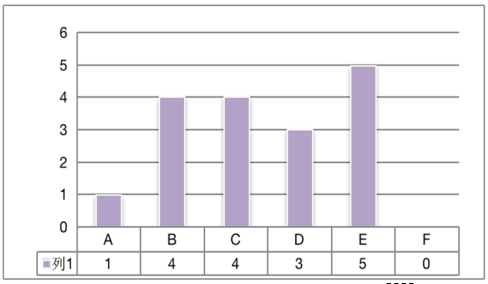

Chart 6 What problems did you have? (First try)

A. denotes: I could not hear which sound it was

B. denotes: I could not separate the sounds into words

C. denotes: I heard the words but could not remember their meaning quickly enough

D. denotes: This word was new to me

E. denotes: I heard and understood the words but not the meaning of that part of the sentence

F. Other problems

b) Results from high-level students:
1) Performance on 10 items: (First try)

Table 9. Performance on 10 items: (First try)

No.	Respondents.	Accuracy Rates
1.	5	100%
2.	5	100%
3.	5	100%
4.	5	100%
5.	5	60%
6.	5	60%
7.	5	80%
8.	5	100%
9.	5	100%
10.	5	100%

2) Feed back of questionnaire: (First try and Second try)
How much of the meaning do you think you understood? (First try VS. Second try)

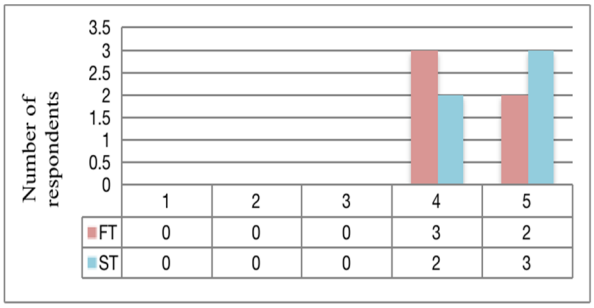

Chart 7 How much of the meaning do you think you understood? (First try VS. Second try)

1. denotes: almost everything
2. denotes: less than 40%
3. denotes: about 50%
4. denotes: more than 60%
5. denotes: almost all

What problems did you have? (First try)

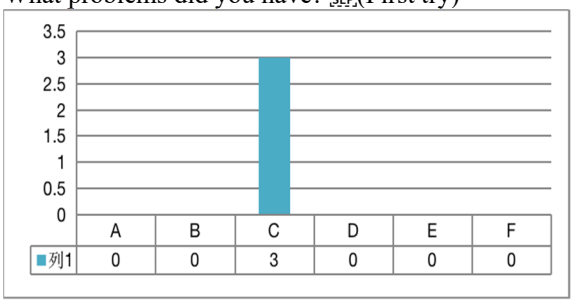

Chart 8 What problems did you have? (First try)

G. denotes: I could not hear which sound it was
H. denotes: I could not separate the sounds into words
I. denotes: I heard the words but could not remember their meaning quickly enough
J. denotes: This word was new to me
K. denotes: I heard and understood the words but not the meaning of that part of the sentence
L. denotes: Other problems

7. Discussion

1) Sample book

As mentioned above, conceptually this material was developed to improve word recognition skills through listening practice, by taking advantage of illustrations to heighten text concreteness and hence persuade students to divert their attention to decoding the sounds and words rather than sticking too precisely to the meaning of the conversation and, in a future study, to verify the assumption that listening-based pedagogical work will enhance learners' ability to recognize English vocabulary by taking advantage of this vocabulary book.

This sample book contains four main parts. The first part is the authentic items, which are extracted form the IELTS English authentic examination collected papers. The next part is designed illustrations and key words (signaling words) in the listening. The third part of this book is a bilingual word sheet, including words in orthographic and phonetic forms, meanings, typical examples of usage, associations and background knowledge, on the reverse side. The fourth part is learning by rote (phonetic and its related orthographic forms). The fifth part is a post-grammar check to ensure learners recognize the grammar structure in the listening script. The sixth part is an interactive practice part (working in pairs).

2) Feed back section from learners

There was a big flaw in the feed back activity, as all the lower level students had not taken any English proficiency level test. There is nothing which can reflect their English ability, however they performed poorly in the first listening section. Also according to the feedback section, due to the underdeveloped ability of bottom-up processing and unsound linguistic knowledge, most of the lower level participants utilized their top-down comprehension processes to help in understanding the text. Furthermore, the results of the ten items also indicated that lower level participants relied too much on top-down processes and were misled by their own subjective assumptions, and this result is in line with the Hulstijn' statements about the order of L2 acquisition. However, after looking at contextual illustrations and signaling words their performance improved a lot and they gradually changed their perspective correctly towards the text. Although some of the words still could not be inferred, they could use elimination to choose the correct answer.

High-level English language learners were able to recall many more key words after taking advantage of the illustrated version versus the original. However high-level English language participants stated that the illustrated version confused her a lot at the second try because during the first try she relied on certain skills to complete all the items, however when she utilized the illustrated version she could not focus only on key points, as some other information attracted her attention too. One positive explanation for this situation is that the illustrated version to some extent interferes with experienced English language learner's techniques for doing test items, pushing him or her to focus on much more information from bottom-up processes.

In the questionnaire section, the majority of the lower level participants claimed that the illustrated version helped them in understanding the text. And they also indicated that not only new vocabulary items but also failure to segment individual sounds got in the way of understanding the text. This is because to recognize words in fluent speech one has

to first engage in “identifying words and lexical phrases and then activating knowledge associated with words and phases.” (Rost, 2011)

3) Feed back section from teachers and classmates:

Researcher used this material to give a trail lesson with some constructive feed back from teacher and classmates. Firstly, “the amount of task activity in each section was well limited.” And one integral section (10 items) contains “old” elements and new knowledge, so to some extent stimulated students’ motivation to learn English. However, before the class I should distribute a class syllabus to explain more clearly the goals of the lesson and help students manage time better. Second, “the “signaling phrase” was well conceived.” Thirdly, this book pays much attention to training learners’ receptive knowledge; however according to Nation, all the language skills should be well balanced. In a future study, students’ productive skills training tasks will be designed and added into this learning material.

8. Conclusion

A non-alphabetic writing system, cross-linguistic influences, cognitive resources limitation and lack of a rich and meaningful exposure to language in use may impede Chinese EFL students learning English. For the sake of adjusting Chinese EFL students’ learning preferences (visual orthographic-based strategy), and meaning while enhancing phoneme sensitivity, a listening-based illustrated vocabulary book was developed. However, with increased experience, some parts of this book will be improved. The next most significant step is how to facilitate language learning by using this material and verify the assumptions as mentioned above.

Questionnaire2:

First listen: How much of the meaning do you think you understood?

Almost nothing

Less than 40%

About 50%

More than 60%

Almost all

D. First listen: Make notes of key words.

E. Second listen: Add more notes.

F. What problems did you have? (Circle the problem words above and write a, b, c, d, e or f beside them)

a) I couldn’t hear which sound it was;

b) I couldn’t separate the sounds into words;

c) I heard the words but couldn’t remember their meaning quickly enough;

d) This word was new to me;

e) I heard and understood the words but not the meaning of that part of the sentence;

f) Other problems (write on the back of the page)

g). Which of these words (or phrases) caused you most difficulty in understanding the general or overall meaning?

h). How do you feel about the illustrated version? Is this method helpful? Please make some comment

References

(Periodical style)

[1] Al-Kharrat, M. Y. (2000). Deductive and inductive lessons for Saudi EFL freshmen students. The Internet TESL Journal, VI, 10.

[2] Baars, B. J. and Gage N. M. (2012). Cognition, brain, and consciousness: Introduction to cognitive neuroscience. Academic Press.

[3] Britton, B.K., Woodward, A. and Binkley, M. (1993). Learning from textbooks theory and practice. Routledge.

[4] Buck, G. (2001). Assessing listening. Cambridge University Press

[5] Mclntosh, C. (2009).Oxford Collocations Dictionary for students of English Oxford university press, second edition.

[6] Cook, V., Bassetti B., Kasai, C. Sasaki, M and Takahashi,J. (2006). Do bilinguals have different concepts? The case of shape and material in Japanese L2 use of English. The International Journal of Bilingualism, 10, 2, 137-152.

[7] Cook, V. (2004).The English writing system. Arnold Publication.

[8] Cook, V. and Sigleton, D. (2014). Key topics in second language acquisition. Multilingual Matters.

[9] Dong, Y. and Lee, K-P. (2008). A cross-cultural comparative study of users’ perceptions of webpage: With a focus on the cognitive styles of Chinese, Koreans and Americans. International Journal of Design, 2, 2, 19-30.

[10] Ellis, N. C. (2001). Memory for language. In P. Robinson (Ed.), Cognition and second language instruction (33-68). Cambridge: Cambridge University Press.

[11] Field, J. (2004). An insight into listeners’ problems: too much bottom-up or too much top-down. System: An International Journal of Educational Technology and Applied Linguistics, 32, 3, 363-377.

[12] Huang, H.S., Hanley, J.R. (1995). Phonological awareness and visual skills in learning to read Chinese and English. Cognition, 54 ,1 ,73-98.

[13] Hulstijn, J. H. (2001). Intentional and incidental second language vocabulary learning: a reappraisal of elaboration, rehearsal and automaticity. Cambridge University press. 2001.

[14] IELTS: Test taker performance 2013. Retrieved January 20, 2015, from http://www.ielts.org/researchers/analysis_of_test_data/test_taker_performance_2013.aspx

[15] Kritina, W. L. and Butter, H. J. (2003). Universal principles of design. Rockport Publishers

[16] Koda, K. (1994). Second Language reading research: Problem and possibilities. Applied Psycholinguistics, 1,1-28.

[17] Lam, W. & Wong, J. (2000). The effects of strategy training on developing discussion skills in an ESL classroom. ELT Journal, 54, 3, 245-255.

[18] Levelt, W.J.M. (2001). Spoken word production: a theory of lexical access. Proceedings of National Academy of Sciences of the United States of America, 98(23):13464-13471.

[19] Nunan, D. (2002) Listening in language learning. Cambridge University Press. 238-241

[20] Ortega , L. (2009). Understanding second language acquisition. Hodder Education.

[21] Randall, M. (2005). Orthographic knowledge and first language reading: Evidence from single word dictation from Chinese and Malaysian users of English as a foreign language. In B. Bassetti & V. Cook (Eds.), Second language writing systems. Clevedon, UK: Multilingual

[22] Rost, M. (2011).Teaching and researching listening. Routledge

[23] IELTS8 (2011). Authentic examination paper from Cambridge ESOL examinations Cambridge University press.

[24] IELTS9 (2013). Authentic examination paper from Cambridge ESOL examinations Cambridge University press.

[25] Sachs, H. D. (2013). Remember everything you want and manage the rest. Kindle.

[26] Silvia, A. (2012). Deductive and inductive grammar teaching.

[27] Tomlinson , B. (2013). Applied linguistics and materials development. Bloomsbury Academic.

[28] Tyler, M. D. (2001). Resource Consumption as a Function of Topic Knowledge in Nonnative and Native Comprehension. Language Learning, 51, 257-280.

[29] Vandergrift, L. (2004). Listening to learn or learning to listen. Annual Review of Applied Linguistics, 24, 3-25.

[30] Vandergrift,L.(2003). http://larc.sdsu.edu/LarryVandergrift/4worksheet-discoverylistening.pdf Language acquisition resource center

[31] Wade-Woolley, L. (1999). First language influences on second language word reading: all roads lead to Rome. Language Learning, 49, 3, 447-471. Detailed rules of English pronunciation table(2012). http://wenku.baidu.com/view/fb283c86e53a580216fcfe38.html Baidu.Wenku