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The More Engaged, the Better? An Exploration on Chinese EFL Learners' Lexical Inferencing Procedure

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Abstract

Lexical inferencing is referred to as guessing the meaning of an unknown word using available linguistic and other clues. It is a primary lexical processing strategy to tackle unknown words while reading. This study aims to explore the procedure of Chinese EFL learners' lexical inferencing in reading. Two types of introspective methods have been used to collect data. Fifty-five Chinese EFL learners at four stages of English learning (tertiary final, tertiary middle, tertiary initial and senior secondary) participated in think-aloud and stimulated recall session of lexical inferencing. The results show that there are a variety of procedures in their lexical inferencing, and there are also discrepancies of lexical inferencing procedure complexity across different stages.

Keywords: Lexical, Inferencing, Procedure, EFL

1. Introduction

In reading, lexical inferencing is referred to as guessing the meaning of an unknown word using available linguistic and other clues (Haastrup, 1991). It is a 'primary lexical processing strategy' that L2 learners rely on when encountering unknown words while reading (de Bot, Paribakht, & Wesche, 1997; Fraser, 1999; Paribakht & Wesche, 1999). Since 1990s quite a few studies have been conducted to explore this initial stage of incidental vocabulary acquisition. Studies reveal high correlations between lexical inferencing success and many aspects of reading, such as reading comprehension, vocabulary knowledge, and reading skill (Herman, Anderson, Pearson, & Nagy, 1987; Wesche & Paribakht, 2010; Yin, 2011; Hu & Nassaj, 2012). A variety of clues (cues or knowledge sources) have been identified in L2 learners' lexical inferencing (Wesche & Paribakht, 1999). Learners have also been identified to use various strategies in their lexical inferencing, such as breaking up the word into its different parts, repetition of the word, self-inquiry, evaluation, monitoring, and analogy (Nassaji, 2004). The success of lexical inferencing and the subsequent vocabulary knowledge acquisition have also been examined (Bengeleil & Paribakht, 2004; Pulido, 2007; Wesche & Paribakht, 2010). The aim of this study is to explore the full view of Chinese EFL learners in lexical inferencing, which includes the clue use, the procedure, the success rate, and the development of vocabulary knowledge after inference. This article focuses on the procedure of Chinese EFL learners' lexical inferencing. A detailed exploration on the procedure of L2 lexical inferencing could possibly cast some new lights on L2 lexical inferencing and vocabulary acquisition.

2. Literature Reviews

The procedure of lexical inferencing is crucial aspects of learners' lexical inferencing. There are only limited studies focusing on the procedure of lexical inferencing. In reviewing thinking-aloud studies of reading, Pressley and Afflerbach (1995) distinguished four phases for word-related activities, namely: (a) deciding whether to expend effort to determine the unknown word meaning; (b) paying greater attention to the word and its context (i.e. searching for clues); (c) inferring a word meaning with the use of the context and (d) subsequent evaluation of the generated word meaning. Based on Pressley and Afflerbach's four-phase theory, Fukkink (2005) devised a processing model for describing the procedure of lexical inferencing. According to the model, the procedure of lexical inferencing consisted of the serial lexical inferencing events. After searching for clues, learners would infer a meaning; they then might check the appropriateness of the hypothesis by replacing the unknown word with the proposed meaning. This check could lead to an evaluation with two possible results, accepting or rejecting. A rejection would be followed by further search for new clues and the repeated procedure. The process would be concluded if learners accept the proposed meaning or decide to give up.

Haynes (1993) once conducted a study to examine how Chinese ESL learners to infer word meanings from context. Results revealed that when encountered an unfamiliar word, participants analyzed the word first, and then produced a hypothesis about the meaning of the word. Next, they tried to use context clues to test the hypothesis. If they failed to recognize any part of the word, they would try to use context clues to create a hypothesis. The most frequently used context clue was the clue-word in the local context. If they couldn't find an acceptable meaning of the word, they would skip the word.

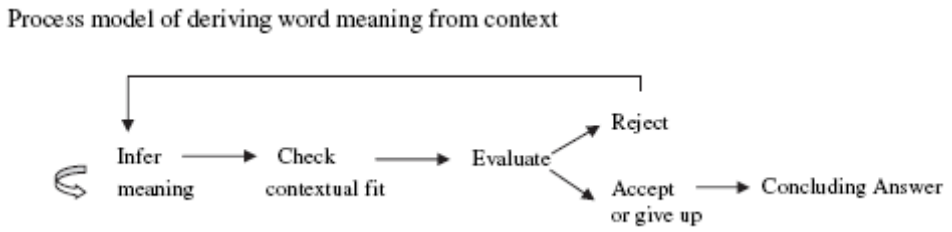

Figure1. Process model of deriving word meaning from context

In order to capture the procedure of learners' deriving unknown word meaning from context, Fukkink (2005) conducted a study with 30 American grade 3,4, and 6 participants. They were requested to read the text, guess the meaning of target word and verbally report the whole process simultaneously. The sessions, each lasted 30-40 minutes, were tape-recorded and then transcribed for coding. A sequential analysis of think-aloud protocols was carried out. Based on the process model, Fukkink identified four main types of procedure in learner's protocols: hypothesis only (infer meaning and conclude), brainstorm (formulating several meaning at a time and then accept and conclude), check (check the first hypothesis, and then followed by another hypothesis and check, and finally conclude), and check-and-switch (formulate several meaning and check but finally conclude with a new meaning). The results revealed that four major procedures were not equally effective in formulating out correct meaning of unknown word from context.

3. The Study

3.1 Research Questions

Two research questions are explored in this article:

1. How do Chinese EFL learners infer the meaning of unknown word in reading in term of procedure?
2. What are similarities and differences of lexical inferencing procedure among Chinese tertiary final, tertiary middle, tertiary beginning, and senior secondary EFL learners?

3.2 Data Elicitation Methods

Think-aloud and stimulated recall were employed to capture the detailed information of Chinese EFL learners' lexical inferencing. The combination of two introspection methods is widely used in studies of related area. Participants were requested to read an article and infer the meaning of target words, and at the same time, to verbalize all their thoughts while inferring. After that they were offered with the article again and requested to recall and report the process of previous lexical inferencing.

3.3 Participants

Participants in this study consisted of four groups of Chinese EFL learners: tertiary final participants were at the end of their tertiary education, tertiary middle were right at the middle of their tertiary education, tertiary beginning participants just began their tertiary education, and senior secondary year-2 participants were at the beginning of their academic year. The time interval of English learning between two successive groups was two years. All tertiary participants majored their study in English language and literature. The details of participants are shown in Table 1.

3.4 Text and Target Words

An 876-word article, selected from science and technology section of *The Economist*, with the title "*Olfactory Diagnostic--- Smelling Bad"*, was used to elicit participants' lexical inferencing behaviour. There were 12 target words, which accounted for only 1.7% of the total number of words of the text. All target words were content words and unknown to most of the learners with same level as tertiary final participants in previous test. All other words that were potentially unknown to senior secondary participants were covered by a glossary attached to the article.

Table 1. Participants of the study

	Introspection Participants		Age	Major in English
Senior Secondary	11	20.0%	16-17	NA
Tertiary Beginning	14	25.5%	18-19	Yes
Tertiary Middle	15	27.3%	20-21	Yes
Tertiary Final	15	27.3%	22-24	Yes
Total	55	100%	16-24	

3.5 Procedures

All participants of introspection took part in one-hour think-aloud training session. The training consisted of the introduction of think-aloud and the practice on number computation, anagram, and reading comprehension.

During the think aloud sessions, each participant was presented with the article and glossary and requested to read and infer the meaning of underlined target words. Participants were also requested to verbalize what they were thinking while reading and guessing in either English or Chinese language at their will. The researcher who was the author of the

paper sat behind silently except prompting participants to verbalize what they were thinking.

Immediately after reading and inferring, participants were presented the article again and requested to recall the entire process of inference for each target word. After that, participants were interviewed about the problems popping up in their guessing. The time of the process for individual participant varied from one and a half to two and a half hours. And each session was audio-recorded.

3.6 Data Analyses

The participants' think-aloud protocols and interviews were segmented and then transcribed. The subsequent analyses were based on the transcripts. The analysis of procedure was ongoing, recursive and iterative. Initially, Fukkink's (2005) model on the process of deriving word meaning from context was adopted as guiding line in coding the events of Chinese EFL learners' lexical inferencing. Protocols were divided into utterances first. And then, based on the coding scheme derived from the model, utterances were coded into five categories of event: ***Guess, Check***, ***Evaluate***, ***Accept***, and ***Reject***. Any utterance that contained a possible meaning of the target word was coded as the event of ***Guess***. Any utterance that was related to the check of the inferred meaning was coded as the event of ***Check***. The inferred meaning could be checked against the form, the morphology, the context of the word or readers' personal knowledge. The event of ***Accept*** and ***Reject*** closely related to the event of ***Evaluation***. Only those utterances with apparent marker of accepting or rejecting, such as 'Yes, it is…', 'It should be…', 'No, it is not…'.

Several problems propped up in this initial analysis. First of all, there were numerous utterances, especially the utterances of interpretations and understandings on fragments of sentences that comprised the target word, beyond the coding system. Moreover, it was difficult to differentiate the event of ***Check*** and ***Evaluate*** empirically. Furthermore, some events could be revealed by some features of protocols, such as the pause and intonation, but left no trace in utterances. In order to avoid the problem mentioned above, some modifications were adopted to analyze the procedure of Chinese EFL learners' lexical inferencing. First of all, a modified model was adopted to describe the event of Chinese EFL learners' lexical inferencing. In this model, the event of ***Check*** and ***Evaluate*** were combined. Secondly, not all utterances were coded as event of lexical inferencing. In this study, lexical inferencing occurred within the process of reading; and lexical inferencing events were only a fraction of reading events. Only the utterances related to lexical inferencing were coded. Furthermore, the intonation of utterances and some pauses between and within utterances were also taken into account in coding system.

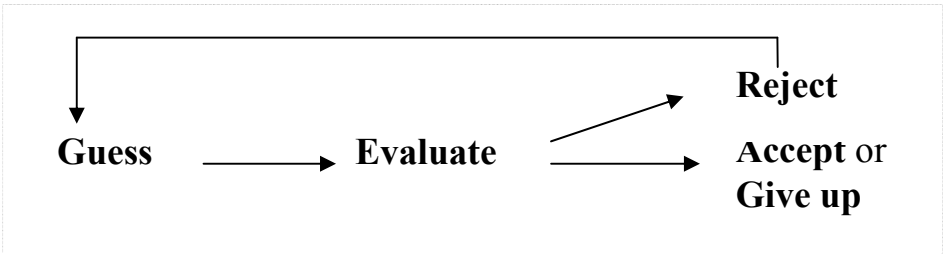

Figure 2. The modified model of the lexical inferencing process

The new model worked well in describing the process of Chinese EFL learners' lexical inferencing. It covered almost all events of inference. The inter-rater consistency reaches 87% at level of event, and 83% at level of procedure with 5% of protocols as sample. The types of lexical inferencing procedure or the sequences of lexical inferencing events were identified first, and then analyzed quantitatively to compute out the proportion of each type of procedure. And subsequently the lexical inferencing procedure was classified based on its complexity to explore the relationship between complexity and other aspects of lexical inferencing.

4. Findings

4.1 Procedure of Chinese EFL Learners' Lexical Inferencing

All together 36 types of procedure (sequence of events) were identified in all protocols of introspection. As demonstrated in Table 2, 46.7% of lexical inferencing procedures were '*Guess-Evaluate-Accept'*; 29.29 % were '*Guess-Accept'*; 8.95% were '*Guess-Evaluate-Reject-Guess-Evaluate-Accept'*, and 3.34% were '*Guess-Evaluate-Reject-Guess-Accept'*.

These identified procedures were subsequently classified into four categories based on the complexity of lexical inferencing. The description of each category was accompanied by the translation of an example.

1. Give up category

The first category is '*Give up*', which consists of two types of sequence, direct '*Give up*' and '*Guess-Give up*'. This category, as demonstrated in protocol Example 1, describes the process that participants could not propose any meanings and give up the lexical inferencing. Each type accounted for 0.76% of the total sequences.

Example 1 Target word '*volatile*' in context '*He used a technique called gas chromatography, which enables complex mixtures to be separated into their components, to detect some 250 volatile organic compounds in the air exhaled from lungs*.'

TA ….. *He used a technique* (check glossary) oh! this is a technology named as gas chromatography *which* mixture *to be spreaded separated separated into their compe, components* (check glossary) *enables complex* Oh *mixture* is mixture to be en this means spread *seperated into their components* here it means that mixture is spreaded into (check glossary) composition *composition* oh no, it is not, it is it is components *components to decide some* (check glossary) to find to find some 250 types of *oragnic compe compedence- compedence is* (check glossary) compound compound in the air *exhaled ex* (check glossary) respire out from the lung respired out from lung so this *organic organ/ai/c* means organic, organ or organization find some 250 types of organic compounds in the air respired out from lung, I can't find out the meaning of this *vo la tile* so leave it here ….

(Protocol- Senior secondary participant)

2. 'Guess-Accept' category

The second category is '*Guess-Accept*' sequence, which occurred 192 times in protocols and accounted for 29.29% of the total inferencing sequences. This category, as shown in protocol Example 2, describes the process that participants formulated a word meaning first and then accepted it as the final result.

Table 2. Lexical inferencing procedure types and categories

Category	Types of event sequence of lexical inferencing	Cases		Percent
Give up	Give up	5	0.76%	1.52%
	Guess Give up	5	0.76%	
Guess > Accept	Guess Accept	193	29.29%	29.29%
Guess > Evaluate Accept	Guess Evaluate Accept	308	46.74%	48.25%
	Guess multiple meanings Evaluate Accept any one of the meanings	3	0.46%	
	Guess Evaluate Accept with doubt	7	1.06%	
Multi-round Inference	Guess Evaluate Reject Guess Evaluate Accept	59	8.95%	20.94%
	Guess Evaluate Reject Guess Accept	22	3.34%	
	Guess Evaluate Accept Guess Accept	7	1.06%	
	Guess Accept Guess Accept	5	0.76%	
	Guess Evaluate Accept Guess Evaluate Accept	5	0.76%	
	Guess Accept Guess Evaluate Accept with doubt	4	0.61%	
	Guess Evaluate Accept Guess Give up	4	0.61%	
	Guess Accept Guess Evaluate Accept	3	0.46%	
	Guess Give up Guess Evaluate Accept	3	0.46%	
	Guess Accept Guess Accept with doubt	2	0.30%	
	Guess Accept Guess Give up	2	0.30%	
	Guess Evaluate Reject Guess Give up	2	0.30%	
	Guess Give up Guess Accept	2	0.30%	
	Guess Reject Guess Accept	2	0.30%	
	Guess Accept Reject Guess Accept	1	0.15%	
	Guess Accept with doubt Reject Guess Accept	1	0.15%	
	Guess Evaluate Give up Guess Accept	1	0.15%	
	Guess Evaluate Reject Guess Accept Guess Give up	1	0.15%	
	Guess Evaluate Reject Guess Accept Reject Guess Accept	1	0.15%	
	Guess Evaluate Reject Guess Accept with doubt	1	0.15%	
	Guess Evaluate Reject Guess Evaluate Accept with doubt	1	0.15%	
	Guess Give up Reject Guess Evaluate Accept	1	0.15%	
	Guess Reject Guess Evaluate Accept	1	0.15%	
	Guess Evaluate Accept Guess Evaluate Reject Give up	1	0.15%	
	Guess Evaluate Accept Guess Evaluate Reject Guess Accept	1	0.15%	
	Guess Evaluate Accept Guess Evaluate Reject Guess Giv up	1	0.15%	
	Guess Evaluate Reject Guess Evaluate Reject Accept form one	1	0.15%	
	Guess Evaluate Reject Guess Evaluate Reject Accept eithe one	1	0.15%	
	Guess Evaluate Reject Guess Evaluate Reject Give up	1	0.15%	
	Guess Evaluate Reject Guess Evaluate Reject Guess Acce	1	0.15%	
	Guess Evaluate Reject Guess Evaluate Reject Guess Evaluate Accept	1	0.15%	
Total		659		100%

Example 2 Target word '*excrete*' and '*exude*' in context '*Using gas chromatography and mass spectrometry, researchers have, over the years, identified more than 3,000 compounds that are regularly exhaled, excreted or exuded from the body.*'

TA …. *Using gas chromatography and mass* use these two ways*, researchers have, over the years, identified more than 3,000 compounds that are regularly exhaled, excreted or exuded from the body* Eh after these years efforts, researchers have identified more than 3000 compounds *that are regularly* regularly released *ex cre excre ted or ex exuded from the body excreted or exuded from the body* they all are '*exhaled'*, yes, they all should be 'released' from the body…

(Protocol- Tertiary Final participant)

3. 'Guess-Evaluate-Accept' category

The third category is '*Guess-Evaluate-Accept*' sequence, which consists of three types, '*Guess one meaning-Evaluate-Accept*', '*Guess more than one meaning-Evaluate-Accept any one of the possible results*', and '*Guess-Evaluate-Accept the result with doubt*'. This category describes the process that participants first formulated one or more word meanings, then assessed the meaning(s), and finally accepted the meaning(s) with or without doubt. Protocol Example 3 provides one sample of this category. At first the participant proposed a meaning 'not know much' for the target word based on the meaning of this sentence, then this proposed meaning was evaluated in this sentence when the participant repeated the relevant section of the sentence slowly. Finally the proposed meaning was accepted and the reading went on. This was the most frequent type, which occurred 318 times, and accounted for 48.25% of total sequences.

Example 3 Target word '*cagey*' in context '*With patents still pending, he is cagey about the details, but the principle is to trap relevant molecules using columns made of metal or silica that are the width of a human hair*.'

TA …*With patents still pending, he is cagey about the details, but the principle is to trap relevant molecules using columns made of metal or silica that are the width of a human hair the principle is to trap relevant molecules using columns made of* to use metal and silicon *that are the width of* to use the metal and silicon that are similar to human hair in width *columns* bar that is as wide as that of human hair *still pending, he is cagey about the details cagey about the details* as to details *pending but the principle is to trap relevant* the principle is to use these find out relevant molecules as to details he is *cagey* he does not know much *about details*↑, *with patents still pending, patents pending he is cagey about details* so *cagey* here means that he does not know much about the details. *Each columns is coated with.....*

(Protocol- Tertiary Final participant)

4. Multi-round Inference

Multi-round inference category refers to the complex sequences, which encompassed at least two rounds of guess, such as '*Guess-Evaluate-Reject-Guess-Evaluate-Accept*'. This category, as shown in Table 2, consisted of 31 types of sequence. Some may consist of the event of evaluate and reject, while others may not. This category accounted for 20.94% of total sequences. In this category, some types occurred rather frequent in comparison with others. Types that occurred more than five times are: '*Guess > Evaluate > Reject > Guess > Evaluate > Accept*', '*Guess > Evaluate > Reject > Guess > Accept*', '*Guess > Evaluate > Accept > Guess > Accept*', '*Guess > Accept > Guess > Accept*', and '*Guess > Evaluate > Accept > Guess > Evaluate > Accept*'. Protocol example 4 presents an instance of this complex sequence.

Example 4 Target word '*olfactory*' in context '*One of the first practitioners of the field of olfactory diagnosis, Carolyn Willis of Amersham Hospital in Britain, decided to contract the job out to dogs.*'

TA …*One of the first practitioners of the field of olfactory diagnosis, Carolyn Willis of Amersham Hospital in Britain, decided to contract the job out to dogs contract the job out to dog* (check glossary) person who is professional in this *ol olfactory ol fac tory ol* a kind of factory↑? No, ol I have never seen this kind of word before. In this kind of field this field this is diagnosis a kind of diagnosis field I don't know ol I can't tell it out. In this field what kind field is it? smell of breath this is about smell but ol is ol related to smell↑? Based on the content above, it is about breath and smell the field of smell diagnosis so she is one of the practitioners in the field of smell diagnosis….

(Protocol- Tertiary Final participant)

In the first round guess, the meaning '*factory*' was proposed for the target word and was rejected quickly. In second round, this participant proposed another meaning '*smell*' for the target word based on discourse clue, and then accept the second proposed meaning after morphological and sentence meaning evaluation.

4.2 The Lexical Inferencing Procedure of Different Groups

Table 3 illustrated the detailed information of procedure categories across groups. For senior secondary participants, the second category took the lion's share, accounting for 59% of sequences, while the third, the fourth and the first category accounted for 24.24%, 12.88% and 3.79% respectively. The results indicated that senior secondary participants, in most cases, guessed the meaning of target word and then accepted it; for rest cases, they had more '*Guess-Evaluate-Accept*' than multi-round inference. For three tertiary group participants, the third category was the dominating category, which accounted for 51.79%, 50.84% and 60% of sequences of the three tertiary groups. The second category accounted for about one fourth in tertiary beginning and middle group, and 14.44% in tertiary final group. The fourth category took up more than one fifth in tertiary beginning and tertiary middle group and one fourth in tertiary final group. The results revealed that tertiary beginning and tertiary middle participants, in most cases, guessed the meaning of target words

first, then evaluated it, and finally accepted the outcome of guess. For the rest cases, there was more '*Guess-Accept'* than multi-round inferences. As to tertiary final participants, in most cases, they guessed first, then evaluated, and finally accepted. For the rest cases, there are more multi-round inferences than '*Guess-Accept*'.

Table 3. Procedure category across groups

		Procedure Category				
		Give up	**Guess-Accept**	**Guess-Evaluate-Accept**	**The Multi-round Category**	**Total**
Senior Secondary	Count	5	78	32	17	132
	% within Group	3.79%	59.09%	24.24%	12.88%	100%
Tertiary Beginning	Count	4	41	87	36	168
	% within Group	2.38%	24.40%	51.79%	21.43%	100%
Tertiary Middle	Count	1	48	91	39	179
	% within Group	0.56%	26.82%	50.84%	21.79%	100%
Tertiary Final	Count	0	26	108	46	180
	% within Group	0.00%	14.44%	60.00%	25.56%	100%
Overall	Count	10	193	318	138	659
	% within Group	1.52%	29.29%	48.25%	20.94%	100%

For further exploration on the difference of lexical inferencing procedure across groups, values were assigned to each procedure category based on its complexity. The score scheme was: zero point for '*Give up*' category, one point for '*Guess-Accept'* category, two points for '*Guess-Evaluate-Accept'* category, and three points for multi-round procedures. There were 12 target words, and each participant had 12 procedures. The maximum total score for a participant was 12 x 3 = 36 points.

As shown in Table4, overall the mean score for all participants was 22.6, 17.55 for senior secondary group, 23.07 for tertiary beginning group, 23.13 for tertiary middle group, and 25.33 for tertiary final group.

Table 4. Description of lexical inferencing procedure across group

					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
Senior Secondary	11	17.55	4.803	1.448	14.32	20.77	10	24
Tertiary Beginning	14	23.07	2.093	.559	21.86	24.28	20	27
Tertiary Middle	15	23.13	1.959	.506	22.05	24.22	20	27
Tertiary Final	15	25.33	2.193	.566	24.12	26.55	20	29
Total	55	22.60	3.871	.522	21.55	23.65	10	29

In order to explore the significance of the difference across groups, data were subjected to one-way analyses of variance (ANOVAs). The results of ANOVA test demonstrated that the differences of lexical inferencing procedure across groups were statistically significant, $F(3,51) = 16.657$, $p = .000 < .005$.

The result of Leven's test indicated that the homogeneity of variance could not be assumed. The Tamhane post hoc measure demonstrates that the difference between senior secondary group and three tertiary groups were statistically significant, but the differences among three tertiary groups were not statistically significant.

4.3 Procedure complexities and the result of lexical inferencing

When values of procedural complexity were assigned to different types of procedures and values of success were assigned to different types of result of lexical inferencing, the correlation between lexical inferencing result and lexical inferencing procedure complexity was computed out. There was no significant correlation between lexical inferencing result and lexical inferencing procedure complexity, $R (n = 695) = -.031$, $p = .432$.

5. Discussion and Implications

The results of this study partially confirm the findings of previous studies (Haynes, (1993). Some Chinese EFL learners analyzed the unknown word parts and formulated a hypothesis first and then evaluated it in the context; some guessed

the meaning of unknown word directly from context when they could not find any morphological clue within the target word. The sequential analysis of lexical inferencing events demonstrated that instead of a universal sequence, there were numerous types of sequence for Chinese EFL learners' lexical inferencing. Bates & MacWhinney's (1987, 1989) competition model could provide some possible explanations for this finding. For different target words, the availability, the strength, and the position of various clues are different. The competition processes of these clues and the consequential meaning formulation, therefore, are different. Furthermore, depending on learners' varied knowledge background, even for the same target word with given clues, the lexical inferencing process also could be different. For the participants with full knowledge of all potential morphological and contextual clues, the process of lexical inferencing can be a full competition of all types of clues. In most cases of this study, learners used the morphological clue first when decoding the written form target word; then followed by sentence meaning or discourse meaning. If all clues were consistent with each other and led to the same outcome, the process was as simple as '*guess evaluate and accept it'*. If clues were not consistent, they would compete against each other, and the outcome would finally base on the clues considered the strongest. The process was complex, back and forth, full of guesses, evaluations and rejections. For the participants lacking of morphological knowledge, only contextual clue was involved in the competition, and therefore, the process was as simple as '*guess the meaning from context and accept it',* without any '*evaluations'*.

Findings of this study indicate that successful inferencing does not necessarily result from a complex procedure, and complex procedure could not ensure a better result of lexical inferencing. If clues are strong, informative, and consistent, the inferencing could be simple and successful. On the contrary, if clues are not informative or consistent, the procedure could be more complex since there are no dominating clues in competition. And the result could be very unsuccessful, since there are no informative clues available. Even if there are some informative clues, the contradiction of these clues might lead to conflicting outcomes, and the result might be far from success. But procedure complexity can be a potential prerequisite for the success of lexical inferencing. Generally speaking, for any given target words with same clues, the deeper learners delve into, the more clues they would use, and the more likely the outcome would be complete and sound.

During the competition between morphological clues and contextual clues, some Chinese EFL learners assigned more weights to morphological clues over contextual clues, although they were, in many cases, imagined rather than genuine morphological clues. Consequently, the results of their lexical inferencing were completely incorrect.

This study revealed that there was a significant difference between senior secondary group and three tertiary groups in their procedure complexity of lexical inferencing; and there was no significant difference within three tertiary groups. It seemed to indicate that the procedure of Chinese EFL learners' lexical inferencing changed drastically, and became more complex from senior secondary stage to tertiary stage, and during tertiary stages the procedure of lexical inferencing remained complex.

There are also some limits of this study, such as the sample size. Restrained by the methods of data collection, the number of participant is restricted, which undoubtedly affect the generalization this study.

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