



Revisiting Lexical Inferencing Strategies in L2 Reading: A Comparison of Successful and Less Successful EFL Inferencers

Sahar Anvari

Department of ELT, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran

Mohammad Taghi Farvardin (Corresponding author)

Department of ELT, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran

ABSTRACT

There are many questions about how EFL learners infer word meanings from context and what distinguishes successful from less successful inferencers. This study explored the lexical inferencing strategies used by EFL learners and the characteristics which distinguish successful from less successful inferencers. To this end, 15 EFL students in an intact class were selected. The participants were supposed to think aloud while they were reading the passages and trying to infer the meanings of unknown words. Two passages were given to them and 20 words were highlighted as the target words. Afterwards, the number of used strategies and percentage of the participants' correct inferencing were identified. Then, the participants were divided into two groups of successful and less successful inferencers. Mann-Whitney U tests were conducted to examine the two groups in terms of the strategies used by the participants. The results revealed no significant differences between the successful and less successful inferencers in terms of the number of strategies. However, they differed concerning the quality of each strategy type (i.e., the way they made use of lexical inferencing strategies). The results can be of significance for teachers and learners of English to consider the quality of inferential strategies more than the quantity.

INTRODUCTION

Investigating the processes involved in inferring word meaning from context has received wide interest in the field of second/foreign language learning (Hu & Nassaji, 2014). Lexical inferencing strategies are among the most conducive strategies to ESL/EFL readers when they encounter an unknown word in a text (Wang, 2011). Lexical inferencing is defined as “using a variety of linguistic and nonlinguistic clues to guess the meanings of all the words when the learner does not know them” (Oxford 1990, p. 47). It is considered as an important strategy since it provides a deeper information processing of the text and also it can contribute to a better comprehension of the text as a whole (Wang, 2011).

In recent years, the focus of researchers has been on identifying the way L2 learners deal with unknown words during reading, and also they have tried to detect how lexical inferencing strategies function and introduce some factors which affect the EFL/ESL learners' success (e.g., Hu & Nassaji, 2014; Nassaji, 2003, 2004; Wesche & Paribakht, 2010). Oxford

(2011) pointed out that good language learners are those who “actively and constructively use strategies to manage their own learning” (p. 7).

In studies conducted on lexical inferencing, there is another factor for learners’ vocabulary learning success and that is learners’ knowledge of using strategies in the most effective way (e.g., Nassaji, 2004; Wesche & Paribakht, 2010). It is believed that quantity of strategies alone is not enough to judge why good language learners succeed but there might be other characteristics which should be included such as being able to use them in right place (Hu & Nassaji, 2014). It is possible to shed more light on this area through using think aloud protocols (TAPs). TAPs provide rich information about how learners solve problems, what difficulties they come across and also give some information about the contexts where they use certain strategies in doing a task (Ozek & Civelek, 2006). A number of researchers have tried to investigate lexical inferencing and the role it plays in reading comprehension success.

De Bot, Paribakht and Wesche (1997) identified a set of eight knowledge sources used in inferring meanings of unknown words, based on evidence from their introspective verbal protocols of 10 intermediate ESL learners in Quebec. The eight knowledge sources were sentence level grammar, word morphology, punctuation, world knowledge, discourse and text, homonymy, word associations and cognates. The findings showed that the participants ignored half of the assumed unknown words, focusing mainly on content words (nouns, verbs and adjectives). It was also revealed that the participants used sentence level grammatical knowledge, word morphology and punctuation. There were a few participants who made use of discourse level clues. Later, Paribakht and Wesche (1999) conducted another introspective study to identify the strategies and the kinds of knowledge and information that readers may use to handle the new L2 words they came across during reading. The participants were 10 intermediate-level students in a university ESL class with different L1 backgrounds (Chinese, French, Spanish, Vietnamese, Farsi and Arabic). The results demonstrated that the participants made use of different strategies to infer word meanings from a variety of clues such as synonym, collocation, etc. The participants were observed to mainly use sentence-level grammatical knowledge in lexical inferencing. Wang (2011) further conducted a contrastive analysis between Filipino Graduate Students and Chinese Graduate Students and examined lexical inferencing strategies for dealing with unknown words. The results showed that Chinese and Filipino graduate students employed lexical inferencing to deal with unknown words in reading, but no evidence was found for gaining new vocabulary incidentally by lexical inferencing strategies. Recently, Hu and Nassaji (2014) conducted a TAP with 11 Chinese ESL learners to explore L2 learners’ inferential strategies and the relationship with their success. Based on both qualitative and quantitative analysis, they concluded that there are a number of differences between successful and less successful inferencers. These differences were related to not only the degree to which the participants used certain strategies but also when and how to use them successfully.

In sum, previous research on L2 lexical inferencing revealed important insights about how learners behave while trying to infer the word meanings from context and the factors that might affect their use of strategies (Hu & Nassaji, 2014). However, there is inadequate evidence with regard to the similarities and differences between successful and less successful EFL inferencers. Therefore, it is needed to conduct more research in this area to compare these two groups and identify characteristics which separate EFL inferencers in two groups of successful and less successful. To fill in the existing gap, this study aimed to find the role of using lexical inferencing strategies in reading comprehension. It sought to identify inferential strategies EFL learners use while they were inferring unknown words in a text. It also intended to identify characteristics which distinguish successful from less successful inferencers. There are two questions addressed in the present study:

Q1: What inferential strategies do EFL learners use when attempting to infer word meaning from context?

Q2: What characteristics distinguish successful from less successful EFL inferencers?

METHOD

Participants

The participants who formed the focus of the study were fifteen EFL students in an intact class. They were intermediate English learners in an English Language Institute in Izeh, Khuzestan, Iran. Proficiency level of learners had been already identified based on the American English File Placement Test (2008). They had been studied English for two years. They were all female students and their age ranged from 13 to 19 (Mean = 16.4).

Materials

Reading Comprehension Passages

In this study, three passages were selected: a short passage used as a pilot and two main passages. The pilot passage, a news report, was drawn from American File 2 (2013). Its length was about 300 words. American File 2 is the book chosen by the institute for intermediate learners and it was corresponding to their proficiency level. Eight words were selected as the unknown words. The main passages used for this study were *A Long Walk Home*, a short story, and *Out to Lunch*, an expository text about Spanish's way of living. They were drawn from Intermediate Select Readings (2011). The lengths of the passages were 563 and 527 words, respectively. Ten words were selected as the target words in each passage and were highlighted in bold fonts. Main passages were longer than the pilot passage to motivate students to use more inferential strategies. Simple and well-written texts are not appropriate for verbalization because there is a chance for readers to verbalize the text automatically (Erricson & Simon, 1993). On the other hand, if there is a difficult text with poor writing, unknown words or if the text length is more than what the L2 learners expect, they start to find the meaning of the text and verbalization can lead to important information.

Target Words Selection

There were two criteria for selecting the target words: first, they were content words and their comprehension was significant for understanding the rest of the passages; second, they were judged to be unknown in the pilot test. Moreover, the target words were also consulted with five experienced teachers of the institute and it was assured that all target words were unknown to the participants. In each passage, ten target words were selected. Furthermore, to facilitate the process of comprehension of the passages, the difficult words, other than target words were replaced by more frequent synonyms. The unknown words were dispersed in a consistent manner throughout the passage so that none of the two target words appeared in the same sentence. This way of distribution helped participants to provide more inferential context for the unknown words. As it was mentioned, the passages selected for this study were relatively long in order to provide more opportunities for participants to use inferential strategies.

Reading Comprehension Tests

After doing each think-aloud task, each participant was given a reading comprehension test. The tests included 3 multiple-choice items, 4 true-false sentences and 3 fill in the blank sentences. Time constriction of the tests was 10-15 minutes for each student. The reason behind giving a reading comprehension test was to make sure that the participants read the text for comprehension while trying to infer the meaning of the target words.

Procedures

The passages were given to the participants and they were asked to read them for comprehension and try to infer meanings of target words. In order to collect data about inferential strategies, TAPs were used. All the participants received a training lesson on what is think-aloud and how to do it before collecting the data. First, they were debriefed about the TAPs. The written instructions were adopted from Ericsson and Simon (1993). Then, they were asked to listen carefully to the teacher conducting a think-aloud activity when reading a passage and trying to infer the meanings of some unknown words. A passage from American English File 2 (2013) was selected and then the teacher verbalized her thoughts while inferring the unknown words. Furthermore, participants' questions regarding TAPs were answered. Next, the participants were given a short passage chosen from American English File 2 (2013). The passage length was about 300 words and eight words were selected as unknown words and written in bold font. The participants were asked to read the text and attempt to infer the meaning of target words. In addition, they were asked to verbalize what they were thinking about the passage while trying to infer the meanings of unknown words. Before doing the task they were asked to be completely relaxed and think that they were in their bedrooms in order to eliminate the effect of stress. Their voice was recorded and then transcribed to see whether they were comfortable with think-aloud or not. The audio-recordings were also analyzed to check the number and quality of strategies used by the participants. By analyzing the audio-recordings of the think-aloud activity it was found that the participants learned to verbalize their thoughts. Afterwards, they were asked to read the main passages and infer the meanings of the 10 unknown words. While reading the passages, they were asked to verbalize their thoughts when they were inferring the meanings of those words and their voices were recorded. The participants were allowed to use the language they felt most comfortable with, either English or Persian, while they were thinking aloud. All of them chose to do the think-aloud in Persian. In two different sessions, two passages were given to the participants and each participant had 20 minutes to read the texts for comprehension. They were supposed to stop their recordings at the end of each passage and answer to reading comprehension questions provided in another page. The participants were required to answer the questions in 10 minutes and there was no need to think aloud while answering the questions. After data collection, the think-alouds were transcribed and translated into English.

Data Analysis

First, the think-aloud transcriptions were carefully reviewed to identify what strategies learners used to infer the word meanings from context. Based on the readings of transcriptions, a coding system was developed. After identifying the most used strategies, the reliability of the coding was established through computing inter-coder reliability. To this end, the same procedure in Hu and Nassaji's (2014) study was followed. Twenty percent of the think-aloud transcriptions were randomly selected and given to an expert to be analyzed. The inter-coder reliability was calculated by using Cohen's Kappa which is a measure of reliability that corrects

for chance agreement (Cohen, 1960). In the present study, the value of %95 was found which indicates a high acceptable reliability value (Lombard, Snyder-Duch, & Bracken, 2010). After determining inferential strategies, the data were analyzed for the amount of correct response given by each participant. Nassaji (2003) believes that a person can be considered a successful inferencer that has both semantic and syntactic accuracy. He also believes that a partially successful inferencer is one with either syntactic or semantic accuracy and an unsuccessful inferencer is neither semantically nor syntactically correct. According to these definitions, two groups of learners were identified: successful and less successful inferencers. Based on Hu and Nassaji's (2014) classification of successful and less successful inferencers, those who inferred correctly at least 50 % of the target words were considered successful and those who correctly or partially inferred less than 50% of the target words were considered less successful. Then, successful inferencers were compared with less successful ones regarding the quantity of strategies they used. In addition, the inferences made by two groups were analyzed qualitatively. First, for the quantitative analyses the mean number of strategy types was calculated for each of the two groups. Since both groups were small, the non-parametric Mann-Whitney *U* test was conducted to evaluate the differences between two groups. Moreover, qualitative analyses were conducted to find out whether there is any difference between two groups in terms of the quality of the strategies used by them. To achieve this, four participants who had the highest scores and four with the lowest scores were examined and compared.

RESULTS

The coding scheme for analyzing the data was adopted from Hu and Nassaji's (2014) study in which twelve types of strategies were identified: analyzing, associating, repeating, using textual clues, using prior knowledge, paraphrasing, making inquiry, confirming/disconfirming, commenting, stating failure or difficulty, suspending judgments and reattempting. Then based on the nature of these strategies they were grouped into four major categories: form-focused, meaning-focused, evaluating, and monitoring strategies. Tables 1 to 4 present these strategies along with their definitions and examples. In these tables, examples shown in italics represent the main text of the study, quotation marks represent learners' phrases translated to English directly quoted from the main text, and bold fonts are the target words.

Table 1. Form-Focused Strategies

Strategies	Definitions	Examples
Analyzing	Analyzing a word using knowledge of prefixes, suffixes, punctuations, or grammar.	<i>There is a secondary peak of sleepiness and a decrease in alertness...</i> "I know that alert means conscious here there is ness. It's a suffix that makes nouns, so alertness should mean consciousness."
Associating	Attempting to infer the meaning of the target words with other similar words.	<i>..., government employees-wink off in the middle of the workday.</i> "It's similar to link off. Hum I'm not sure but I think it means that they stop their work in midday and have break and sleep."
Repeating	Repeating the target words or part of the text containing the TW out aloud.	<i>My protests and, my apologies and the rest of my utterances were useless.</i> "My protests and my apologies.....were useless...." <i>I quickly jumped in the car and followed behind, hoping he would relent.</i> " Relent relent relent , hoping he would relent ."

Table 1 illustrates form-focused strategies along with their definitions and examples drawn from audio-recordings transcriptions. It includes analyzing, associating and repeating strategies. Table 2 depicts meaning-focused strategies including using textual clues, using prior knowledge, and paraphrasing.

Table 2. Meaning-Focused Strategies

Strategies	Definitions	Examples
Using textual clues	Guessing the meaning of the TW by using the surrounding context clues.	<i>...I became so immersed in the films that I completely lost track of time.</i> “He did not pay attention to the time because he was watching films so certainly the films were exciting for him and he was completely involved in watching.”
Using prior knowledge	Using prior knowledge or experience to infer the word meaning.	<i>...on the condition that I take the car to be serviced....</i> “I think it means, as in Persian, taking the car to a garage and service it.” <i>I had let my father down.</i>
Paraphrasing	Paraphrasing or translating part of the text that contains the target words.	(Participant translated each word into Persian). “I had, I had ... let means to allow or permit and down means from a higher to a lower position. So it means I allowed my father to come down.”

Table 3 shows evaluating strategies, making inquiry, confirming/disconfirming, and commenting strategies.

Table 3. Evaluating Strategies

Strategies	Definitions	Examples
Making inquiry	Questioning their own inferences.	<i>There is a secondary peak of sleepiness and a decrease in alertness....</i> “Usually people feel tired in the afternoon and there is a decrease in their actions.” Hum ... in sleep ... work? Is it true to say a decrease in action or work? Am I true?”
Confirming/disconfirming	Confirming/disconfirming the inferences made by using the information in the text.	<i>There is a natural reason for siestas.</i> “Because it’s talking about napping and resting during the work day so I think here again it is something about sleeping or napping. Yes, it is true. Siesta means sleep in midday.”
Commenting	Making evaluative comments about the TW.	<i>...and from there it's out on the town until one or two in the morning.</i> “They eat dinner at 9 or 10 p.m. and then they go out. Does it mean that they go out of city? Oh...I don’t know what it means. I have no idea of this phrase.”

Table 4 displays the monitoring strategies which consists of stating failure/difficulty, suspending judgment, and reattempting strategies.

Table 4. Monitoring Strategies

Strategies	Definitions	Examples
Stating the failure/difficulty	Making statements about the failure of inferencing or the difficulty of the TW.	...that Spanish <i> biorhythm </i> maybe tuned more closely to our natural body rhythm. “I think I have read it before. I can understand the meaning of it but I don't know how to say it. It's something related to life because bio means life, but I can't actually say the correct equivalence of it in this sentence. I don't understand it; it's somehow difficult for me.”
Suspending judgment	Postponing the inference making and leaving it for a later time.	Most people go home for lunch ... and nod out afterwards. “Spanish always go home for lunch and they get together with their families ... and nod out I think because they drink wine they shake their heads after drinking. But hum... no I think it should mean something else like...like...let me read the following text to see some clues to guess the meaning of this word.”
Reattempting	Discarding the old inference and attempting to make a new one.	... and <i> contemplate </i> where I have gone wrong all these years. “The father said that he became disappointed and he was very sad. He decided to walk home and contemplate...I think it means review or something like it... (After making inference about other words, the participant went back to the target word contemplate) contemplate might mean hum... let me put myself in the story, if I am sad and walk alone what can I do? Oh it's clear I should think with myself. Ok ...think.”

Table 5 demonstrates the total number and frequency of each strategy type used by all participants. For example, paraphrasing/translating was the most frequently used strategy type (210 times), which accounted for %45 out of the 463 strategy counts. Also, commenting was the least frequently used strategy type with just 4 counts, which was about %1 percent.

Table 5. Number and Percentage of Strategy Types Used by the Fifteen Participants

	Strategies	Frequency	Percentage
Form –focused	Analyzing	19	4. %
	Associating	9	2%
	Repeating	52	11%
Meaning –focused	Guessing from textual clues	77	16%
	Using prior knowledge	8	2%
	Paraphrasing /translating	210	45%
Evaluating	Inquiry	23	5%
	Confirming /disconfirming	13	3%
	Commenting	4	1%
Monitoring	Stating the failure/ difficulty	29	6.5%
	Suspending judgement	11	2.5 %
	Reattempting	8	2%
Total		463	100%

After determining the number and percentage of inferential strategies the data were analyzed for the amount of correct/incorrect responses by each participant. Following Nassaji (2003), two groups of successful and less successful inferencers were identified and examined. Based on the degree of accurate inferences, those who correctly or partially correctly inferred at least %50 or 10 correct responses out of 20 target words were considered successful and those who correctly or partially correctly inferred less than %50 or lower than 10 correct responses of the target words were considered less successful. Considering all 15 participants, 8 participants were considered successful and 7 participants were considered less successful. Table 6 shows the number of correct, partially correct and incorrect responses (inferences) made by each participant and the number of successful and less successful inferencers.

Table 6. Number of Correct, Partially Correct and Incorrect Inferences by Each Participant

	Strategies	Successful	Less successful	Total
Form–focused	Analyzing	11	8	19
	Associating	5	4	9
	Repeating	27	25	52
Meaning–focused	Guessing from textual clues	52	25	77
	Using prior knowledge	6	2	8
	Paraphrasing /translating	113	97	210
Evaluating	Inquiry	11	12	23
	Confirming /disconfirming	9	4	13
	Commenting	2	2	4
Monitoring	Stating the failure/ difficulty	11	18	29
	Suspending judgement	7	4	11
	Reattempting	4	4	8

Then two groups were first analyzed and compared regarding the quantity of strategies and then qualitatively analyzed. Tables 7 and 8 summarize the result of these quantitative analyses.

Generally, both successful and less successful inferencers used to some degree all types of identified strategies, including form-focused, meaning-focused, evaluating and monitoring strategies. In other words, both groups employed all four major categories of strategies.

Table 7. Descriptive Statistics and Mann-Whitney U Test of the Four Main Strategy Types

Strategy Types	Group	Mean	SD	Mean Rank	Mann-Whitney U	p-value
Form-focused	Successful	5.76	2.19	8.88	21.000	.413
	Less Successful	5.14	3.24	7.00		
Meaning-focused	Successful	19.88	2.42	9.56	15.500	.143
	Less Successful	17.71	2.56	6.21		
Evaluating	Successful	3.00	2.62	8.19	26.500	.859
	Less Successful	2.14	1.34	7.79		
Monitoring	Successful	2.63	1.92	7.75	26.000	.814
	Less Successful	3.14	2.34	8.29		

Table 8. Descriptive Statistics and Mann-Whitney U Test of Individual Strategy Types

Strategy Type		Mean(SD)		Mann-Whitney U	p-value		
		Successful	Less Successful				
Form-focused	Analyzing	1.38	(1.19)	1.00	(1.00)	23.00	.536
	Associating	.63	(.74)	.57	(1.13)	23.50	.552
	Repeating	3.75	(1.28)	3.57	(1.72)	24.50	.678
Meaning-focused	Using textual clues	6.38	(3.12)	3.57	(1.27)	10.00	.036
	Using prior knowledge	.50	(.76)	.43	(.53)	28.00	1.00
	Paraphrasing	13.00	(3.78)	13.71	(3.45)	24.50	.68
Evaluating	Making inquiry	1.38	(.74)	1.57	(1.27)	28.00	1.00
	Confirming/disconfirming	1.25	(1.83)	.43	(.79)	21.00	.359
	Commenting	.37	(1.06)	.14	(.38)	28.00	1.00
Monitoring	Stating the failure/difficulty	1.13	(.83)	2.43	(1.72)	13.50	.077
	Suspending judgment	1.00	(1.07)	.57	(.79)	22.00	.441
	Reattempting	.50	(.76)	.14	(.38)	21.00	.296

As Table 8 depicts, the results indicate that the two groups differed significantly only on the frequency of one of the strategies, which was the using textual clues strategy ($U = 10.00$, $p = .036$). Qualitative analyses were further conducted to find out whether there were any differences in terms of the quality of the used strategies by participants. Based on Hu & Nassaji's (2014) analysis of the nature of each strategy type four common characteristics of successful inferencers that distinguish them from less successful inferencers emerged. These strategies were called strategic deployment of inferential strategies, included appropriate and timely use of textual and background knowledge, depth of analysis and active involvement, application of monitoring and

self-awareness strategies and coordinative use of multiple strategies. These are explained in following with some examples to clarify them in detailed.

Appropriate and Timely Use of Textual and Background Knowledge

Those who succeed in lexical inferencing usually employ a conceptual frame work by appropriately using their background knowledge and textual clues that comes from the target words and its surrounding context (Oxford, 2011). Thus, they spent more considerable time on reading and inferencing the sentence that contains unknown word as well as considering both surface meaning and implied meaning of the sentence. On the other hand, less successful inferences did not consider contextual clues and tried to guess the meaning by using just the surface meaning. They did not attempt to confirm their inferences regarding the whole text (Hu & Nassaji, 2014).

Example 1: successful inferencer

Target word: **immersed**

*I became so **immersed** in the film that I completely lost track of time.* “Immersed, so immersed... let me read the following sentence to see what clues I have in the text. He went to the movies and watched some films, then he like them...um it was six. Then he forgot the time, he lost the time so what does it mean? You immersed in a film so that you forget the time. I think it means that the films were very exciting to him and he was completely involved in watching movie.”

Example 2: less successful inferencer

Target word: **immersed**

*I became so **immersed**,* what does it mean? I became so happy, I became so amazed. Does it mean happy or amazed?

In the above mentioned examples, those who were successful tried to use their background knowledge and made more use of contextual clues. They took a look at surface meaning but followed it by going beyond the sentence meaning and cared more about implied meaning a characteristics that was not found in less successful inferencers and if found it was failed (Wesche & Paribakht, 2010).

Depth of Analysis and Active Involvement

Another characteristics of successful inferencer is that not only they inclined to constantly use textual clues and look for the cues come from the target words and guide them to the correct meanings, but also they tried to make more information about them by analyzing and repeating the word and its accompanying sentence. Successful inferencers to some degree tended to use analyzing and confirming/disconfirming strategies more than less successful inferencers. First, group consistently asked themselves the question of whether the inferred meaning matched the text.

Example 3: successful inferencer

Target word: **incineration**

... *Spanish turned to shadow and motionlessness to avoid **incineration**...* “tion is a suffix that makes noun, so **incineration** is a noun, **incineration**, *turn to shadow to avoid incineration*. When people turn to shadow it means that they want to become cool or have a shelter against the sun. They stop their work and turned to motionlessness and shadow. Does it sound true? Yes. It seems true. So, **incineration** might mean avoiding sun and its rays.”

Example 4: less successful inferencer

Target word: **incineration**

...*Spanish turned to shadow ... to avoid **incineration** ... “**incineration, incineration**, avoid **incineration** at noon... um what does it mean? I cannot remember the meaning of it. I am not sure but maybe it means work.”*

What is noticeable in the participants' inferencing is that they repeated the word and its sentence constantly to gain more information which could help them to get the correct meaning. Another feature that is shared by two successful inferencers is that they asked themselves about meaningfulness of their guesses. On the other hand, less successful inferencer just tried to translate the words in to Persian and although she employed repeating strategy but it was because of trying just to remember the meaning from her mental lexicon. If she inferred a meaning she did not went back to verify her guessing, either.

Application of Monitoring and Self-Awareness Strategies

Another characteristic of successful inferencers was that they did not try to make a decision on meaning of words as soon as possible but they postpone their judgements until they could collect enough information from the context. They showed that they are more experienced to monitor their inferencing and discarded the old inference and provide new ones where was necessary. Although less successful inferencers also used suspending judgement strategy but they did not come back to the word and they did not reattempt their guessing.

Example 5: successful inferencer

Target word: **contemplate**

... *and **contemplate** where I have gone wrong all these years.* “The father said that he became disappointed and he was very sad. He decided to walk home and contemplate...I think it means review or something like it. I think I should collect more information from the next sentences ... (after making inference about other words, the participant went back to the target word contemplate) **contemplate** might mean hum... let me put myself in the story, if I am sad and walk alone what can I do? Oh it is clear I should think with myself. Ok ...think.”

Example 6: less successful inferencer

Target word: **contemplate**

... *and **contemplate** where I have gone wrong all these years.* “Jason's father was sad. He wanted to walk. May be contemplate means wants to be alone. Let me read the following then I will find better meaning for it.” (She did not come back to the word contemplate).

Generally speaking, based on the result of conducting Mann-Whitney *U* tests, two groups did not display a significant difference regarding monitoring strategies, but qualitatively, successful inferencers made more use of them. In example 5, a successful inferencer revealed that

she first used contextual clues then decided to suspend her judgement and reattempt her inferencing and also she made use of her background knowledge to find the correct meaning. But in example 6, coming from a less successful inferencer, it was found that she tried to use contextual clues but she failed and she just postpone her inferencing without any attempt to infer the meaning afterwards.

A Coordinative Use of Multiple Strategies

Both successful and less successful inferencers seemed to combine different strategies, but what was more prominent in first group was that they use them flexibly and relate them to wider context (Hu & Nassaji, 2014). Although less successful inferencers tended to use different strategies but most of the time they were not successful in inferring the target words. This finding shows that just employing multiple strategies is not a sign of correct comprehension, what makes a difference is how and when make use of them in the text, i.e., strategic use of lexical strategies (Nassaji, 2004; Wesche & Paribakht, 2010).

Example 7: successful inferencer

Target word: **siestas**

... *There is a natural reason for siestas.* “**Siestas**, a natural reason for siestas. **Siestas, siestas**... I don't know what it exactly means, let me read the following. (The participant read the three next sentences and the sentence before the sentence containing the target word, then went back to the target word). What comes to my mind from the surrounding text is that it might mean sleep or break in midday. I got the clues from this sentence *some people ... doing any sort of task between one and four in the afternoon.* It is a time when people usually rest or take a nap. So **siestas** mean something like sleep. Am I right? I am not sure but it seems meaningful”.

Example 8: less successful inferencer

Target word: **siestas**

There is a natural reason for siestas. “**Siestas, siestas** a natural reason for **siestas**. I know it is a noun and it's plural but what does it mean? Maybe it means a clear reason... no no. Does it mean problem? I don't know, it's talking about characteristics of people of Madrid. But what is it? I can't guess its meaning.”

In the above mentioned examples, the first one is transcription of audio-recording of a successful inferencer. As it is evident, the inferencer by using repeating strategy suspended her judgement till she could find enough contextual clues. Then, she used making inquiry strategy and confirmed her inferencing against the whole text. On the other hand, the less successful inferencer employed different strategies such as repeating, making inquiry and textual clues but she failed. The reason could be that she did not use them strategically and made a quick decision.

DISCUSSION

Below, the findings are discussed according to the research questions.

Q1. What inferential strategies do EFL learners use when attempting to infer word meaning from contexts?

EFL learners participated in this study made use of 12 types of inferential strategies drawn from Hu and Nassaji (2014). They used different strategies confronting an unknown word

including form-focused, meaning-focused, evaluating and monitoring strategies. Based on the results and statistics derived from conducting Mann-Whitney *U* tests between successful and less successful inferencers, it was found that it is not possible to distinguish between successful and unsuccessful inferencers just based on the quantity of strategies they implied because, as the results revealed, there were no significant differences between them regarding quantity of inferencing strategies. This finding is in line with Hu & Nassaji (2014). Furthermore, the results displayed that the two groups differed significantly only on frequency of one of the sub-type strategies, which was the using textual clues (see Tables 7 and 8) and no significant difference emerged in using monitoring strategies, evaluating or form-focused strategies. What made a difference was adopting strategies in right place and combine them where it was necessary by the successful inferencers. This finding is consistent with the previous studies (e.g., de Bot et al., 1997; Wesche & Paribakht, 2010) showing that one of the strategies that helps an inferencer's success in getting correct meaning of a target word in a context is to identify useful clues from the word and its context and to employ prior knowledge to infer the right meaning. Thus, the more frequent use of using textual clues strategy by successful inferencers in this study reveals that they make appropriate inferencing because of being able to pay especial attention to textual clues available in the text. On the other hand, the result was not consistent with some previous studies done by (Hu & Nassaji, 2014; Nassaji, 2003, 2004) regarding the finding that there was a significant difference between successful and unsuccessful inferencers in using monitoring strategies. The reason of this difference can be related to the participants' proficiency level. It is believed that L2 learners at low level of proficiency concentrate more on the words during reading rather than trying to understand the whole passage (İstifçi, 2009). In this study less successful inferencers tried to translate each word to Persian. When they know the meanings of words they use it otherwise, they stated failure. They did not attempt to comprehend the whole passage.

Q2. What characteristics distinguish successful from less successful inferencers?

Based on the findings of comparing two groups of successful and less successful, it was found that it is not the quantity of used strategies but rather the quality of them which distinguishes these two groups. Successful inferencers had several characteristics that are presented as follows. First, they had a deeper knowledge of textual clues and made use of the wider context, context beyond the word and sentence level, to complete the gap in comprehension and infer the meanings of unknown words, a finding supported by previous studies (de Bot et al., 1997; Hu & Nassaji, 2014; Oxford, 2011; Wesche & Paribakht, 2010). Besides, they were found to be able to use multiple strategies in an appropriate way, including their background knowledge, linguistic and contextual knowledge. Moreover, successful inferencers used to some degree evaluating strategies more than less successful ones; to put it in another way, they tried to make inquiry about the target words, confirm or disconfirm their inferences or comment about the unknown words more than less successful inferencers. When they failed to infer the correct meanings of the words they tried to reevaluate and find appropriate ones. Another finding supported by previous research (Hu & Nassaji, 2014; Nassaji, 2004; Wesche & Paribakht, 2010) was that making less use of lexical inferencing strategies could not be considered as a sign of un-successful learning. Most of the time, successful inferencers used one type of strategies in an appropriate way which helped them to employ sources to support their inferences. On the other hand, less successful inferencers made use of various strategies but they failed to guess the correct meaning. The obtained results also confirmed lexical processing model, a model revised by de Bot et al. (1997). This is a model proposed for L2 lexical processing of written text which cares specially to its mental lexicon

components (concepts, lemmas and lexemes) and organization. It is believed that because the number of word categories and argument structures of English is relatively limited, successful inferencer can easily infer syntactic information from given context. The process of extracting the meaning of a lexical item from context must involve two processes. One process is related to clues come from written text and the other is related to learners' background knowledge. As it was found in this study, the successful inferencers made more use of these two processes, i.e. they were conscious of existing clues and tried to use their background knowledge to fill the gap in their comprehension. Being successful in getting correct meaning of a target word in a context needs to identify useful cues from the word and its context and to employ prior knowledge to be able to infer the meaning.

CONCLUSION

To sum up, this study dealt with finding the strategies used by intermediate EFL learners when they are reading a passage and trying to infer the meanings of unknown words and also it attempted to discover the difference between successful and less successful inferencers. The results indicated that there was no significance difference between two groups concerning the quantity of four types of used strategies except in one of the sub-type strategies, using textual clues. Furthermore, the qualitative analysis revealed that what distinguished between successful and less successful inferencers was not quantity of strategies but the way they were used in inferring target words. The results confirmed many previous finding in that being aware of how and when use these strategies by successful inferencers lead them to infer most of the unknown words (Hu & Nassaji, 2014; Oxford, 2011; Wang, 2011). Moreover, less successful inferencers can be trained to learn how and when use these strategies. So, English teachers should know that identifying reading and inferential strategies and teaching them to EFL learners is of great concern in order to help them improve their comprehension. They can also be trained to pay special attention to textual clues and try to get the overall and implied meaning of text and sentences instead of just relying on surface meaning. It is also recommended that teachers should try to teach analyzing strategies along with other strategies.

This study is not devoid of limitations which should be addressed in the future. First, the participants were 15 intermediate EFL learners. Future studies can recruit more participants at different proficiency levels to gain a clearer and richer picture of lexical inferencing strategies used by ESL/EFL learners. Second, the participants were female and their age ranged from 13 to 16; thus the results might differ with males and a group of different age. Third, the selection of the reading materials can be considered as another limitation of this study. If a passage with shorter or longer length had been selected, the results might have been different. Finally, the period of time used to conduct this study can be considered as another shortcoming. The results could be different if it was conducted during a longitudinal period.

*Sahar Anvari holds an MA in TEFL from Islamic Azad University, Ahvaz Branch, Ahvaz, Iran. Her research areas of interest include EFL reading and L2 vocabulary learning.
Email: s.anvari1987@gmail.com*

Mohammad Taghi Farvardin holds a Ph.D. in TEFL. He is currently an assistant professor in the Department of English Language Teaching at Islamic Azad University, Ahvaz Branch,

Ahvaz, Iran. His research interests include psycholinguistics, EFL/ESL reading and writing, and L2 vocabulary learning.
Email: farvardin@iauahvaz.ac.ir

REFERENCES

- Cohen, J. (1960). A coefficient agreement for nominal scales. *Education and Psychological Measurement*, 20, 37-46.
- De Bot, K., Paribakht, S., & Wesche, M. (1997). Towards a lexical processing model for the study of second language vocabulary acquisition: Evidence from ESL reading. *Studies in Second Language Acquisition*, 19(2), 309-329.
- Ericsson, K. A., & Simon, H. A. (1993). *Protocol analysis: Verbal reports as data* (revised edition). Cambridge, MA: Bradford Books/MIT Press.
- Hu, M., & Nassaji, H. (2014). Lexical inferencing strategies: The case of successful versus less successful inferencers. *System*, 45, 27-38.
- İstifçi, I. (2009). Lexical inferencing strategies of Turkish EFL learners. *Journal of Language and Linguistic Studies*, 5(1), 97-109.
- Latham-Koenig, C., Oxeden, C., & Seligson, P. (2013). *American English File 2* (2nd ed.). New York: Oxford University Press.
- Lee, L., Gundersen, E., & Bernard, J. (2011). *Select Readings* (2nd ed.). Oxford: Oxford University Press.
- Lombard, M., Snyder-Duch, J., & Bracken, C. C. (2010). *Practical Resources for Assessing and Reporting Intercoder Reliability in Content Analysis Research Projects*, Retrieved from <http://matthewlombard.com/reliability/>
- Nassaji, H. (2003). Second language vocabulary learning from context: strategies and knowledge sources and their relationship with success in L2 lexical inferencing. *TESOL Quarterly*, 37(4), 645-670.
- Nassaji, H. (2004). The relationship between depth of vocabulary knowledge and L2 learners' lexical inferencing strategy use and success. *Canadian Modern Language Review*, 61(1), 107-134.
- Oxeden, C., & Latham-Koenig, C. (2008). *American English File placement test*. New York: Oxford University Press.
- Oxford, R. L. (1990). *Language Learning Strategies: What Every Teacher Should Know*. Englewood Cliffs, NJ: Newbury House
- Oxford, R. L. (2011). *Teaching and researching language learning strategies*. Pearson Longman.
- Ozek, Y., & Civelek, M. (2006). A Study on the Use of Cognitive Reading Strategies by ELT Students. *The Asian EFL Journal*, 14(1), 1-26.
- Paribakht, T. S., & Wesche, M. (1999). Reading and "incidental" L2 vocabulary acquisition. *Studies in Second Language Acquisition*, 21(1), 195-224.
- Wang, Q. (2011). Lexical inferencing strategies for dealing with unknown words in reading- a contrastive study between Filipino graduate students and Chinese graduate students. *Journal of Language Teaching and Research*, 2, 302-313.
- Wesche, M., & Paribakht, T. S. (2010). *Lexical inferencing in a first and second language: Cross-linguistic dimensions*. Bristol, UK: Multilingual Matters.